

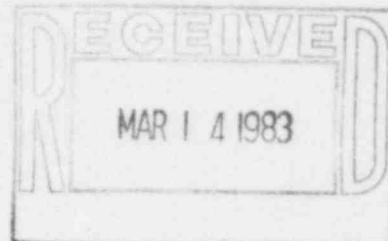


Public Service Company of Colorado

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

50-267

March 9, 1983
Fort St. Vrain
Unit No. 1
P-83093



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. 50-267/83-005, 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. 50-267/83-005.

Very truly yours,

Don Warembourg
Don Warembourg
Manager, Nuclear Production

DW/clh

Enclosure

cc: Director, MIPC

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REPORT DATE: March 9, 1983

REPORTABLE OCCURRENCE 83-005

ISSUE 0

OCCURRENCE DATE: February 7, 1983

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. 50-267/83-005/03-L-0

Final

IDENTIFICATION OF
OCCURRENCE:

During the period February 7, 1983, through February 15, 1983, with the reactor operating, and the average core outlet temperature between 725 and 1200 degrees fahrenheit, the reactor dewpoint exceeded limits set forth by Figure 4.2.11-1 of LCO 4.2.11 on five separate occasions. These events constitute operation in a degraded mode of LCO 4.2.11 and are reportable per Section AC 7.5.2(b)2 of the Fort St. Vrain Technical Specifications.

EVENT
DESCRIPTION:

On January 28, 1983, the trip of a buffer helium recirculator caused an upset in the buffer helium system which allowed an ingress of moisture to the reactor vessel. The reactor was shut down, and efforts to remove the moisture via the helium purification system commenced.

By February 5, 1983, moisture levels had been reduced sufficiently to allow startup, and the reactor was taken critical. The events described below occurred during the subsequent startup operations.

Event #1:

At approximately 1420 hours on February 7, 1983, with the reactor at power and an average core outlet temperature near 950 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 approximately 2000 hours the same day when the dewpoint returned to the "limited acceptable" region. The highest dewpoint reached was 53 degrees fahrenheit at an average core outlet temperature of 952 degrees fahrenheit.

Event #2:

At approximately 2140 hours on February 7, 1983, the calculated reactor dewpoint again exceeded the limits of Figure 4.2.11-1 for the corresponding average core outlet temperature. This condition existed until approximately 2025 hours on February 8, 1983. The highest calculated reactor dewpoint was 43 degrees fahrenheit at an average core outlet temperature of 1004 degrees fahrenheit.

Event #3:

At approximately 1000 hours on February 10, 1983, the calculated reactor dewpoint exceeded the limits of Figure 4.2.11-1 with the average core outlet temperature ranging between 725 and 1200 degrees fahrenheit. This condition continued until approximately 0800 hours on February 11, 1983, when the dewpoint returned to the limited acceptable region again. The highest dewpoint attained was 17 degrees fahrenheit at an average core outlet temperature of 1041 degrees fahrenheit.

Event #4:

From approximately 1315 hours on February 14, 1983, to approximately 2400 hours the same day, the calculated reactor dewpoint exceeded the limits of Figure 4.2.11-1. The highest dewpoint reached was 5 degrees fahrenheit at an average core outlet temperature of 1175 degrees fahrenheit.

Event #5:

From approximately 0200 hours on February 15, 1983, to 1030 hours the same day, the calculated reactor dewpoint once again exceeded the limits of Figure 4.2.11-1 for the corresponding average core outlet temperatures. The highest dewpoint reached was 5 degrees fahrenheit at an average core outlet temperature of 1190 degrees fahrenheit.

CAUSE
DESCRIPTION:

Moisture was introduced into the prestressed concrete reactor vessel as the result of a buffer helium system upset which occurred on January 28, 1983. 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 four events, the helium purification system was used to reduce the reactor dewpoint to within the "limited acceptable" region of Figure 4.2.11-1 for the appropriate average core outlet temperature.

In the fifth event, the reactor was manually shutdown following an unrelated electrical system upset.

No further corrective actions are required or anticipated.

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