

REPORT DATE: September 20, 1979

REPORTABLE OCCURRENCE 79-31

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ISSUE 0

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FORT ST. VRAIN NUCLEAR GENERATING STATION  
PUBLIC SERVICE COMPANY OF COLORADO  
P. O. BOX 361  
PLATTEVILLE, COLORADO 80651

REPORT NO. 50-267/79-31/03-L-0

Final

IDENTIFICATION OF  
OCCURRENCE:

On August 21, 1979, and again on August 30, 1979, the plant was operated with the primary coolant dewpoint above the values allowed by LCO 4.2.11, Figure 4.2.11-1. This is reportable per Technical Specification AC 7.5.2(b)2.

EVENT  
DESCRIPTION:

During return to power following the reactor scram of August 17, 1979, average core outlet temperature was being gradually increased in order to facilitate moisture removal. At 0800 hours on August 21, 1979, with reactor power at approximately 37% and average core outlet temperature of 1,165°F, primary coolant dewpoint as read on the low range Plant Protective System moisture monitors was -15°F.

Technical Specification LCO 4.2.11, Loop Impurity Levels, Low Temperatures, provides that primary coolant dewpoint will be limited as a function of core outlet temperature per Figure 4.2.11-1. Per this figure, the maximum allowable reactor dewpoint at an average core outlet temperature of 1,165°F is -16°F. Thus, the primary coolant dewpoint at 0800 hours on August 21, 1979, was outside the limits of LCO 4.2.11. Primary coolant log readings at 0600 and 1000 hours on August 21, 1979, were within the limits specified by Figure 4.2.11-1.

Reactor power and average core outlet temperature were increased to facilitate further moisture removal, and primary coolant dewpoint began to decrease. At approximately 1200 hours on August 24, 1979, with reactor power at approximately 63% and core outlet temperature greater than 1,200°F, operations personnel observed that primary coolant moisture levels were increasing, and it was decided to lower reactor power to a point where core outlet temperature was less than 700°F until the amount of moisture decreased enough to allow higher power operation within the limits of LCO 4.2.10 and LCO 4.2.11.

Operation at reduced reactor power and average core outlet temperatures continued through approximately 1200 hours on August 26, 1979, at which time the generator was placed on line and reactor power was increased to approximately 40%.

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EVENT  
DESCRIPTION (continued):

Because total primary coolant oxidants remained greater than 10 ppm, it was decided to maintain core outlet temperatures less than 1,200°F for further drying out of the core. Operation within LCO 4.2.11 limits continued until August 30, 1979. At approximately 0815 hours on August 30, 1979, the helium dryer was bypassed while swapping towers, allowing an increase in primary coolant moisture levels. The next primary coolant log entry at 1000 hours indicated that primary coolant dewpoint was outside the limits of LCO 4.2.11. The table below provides information available as to the allowable and actual dewpoints during this occurrence.

Time	Average Core Outlet Temperature	Allowable Dewpoint (From Figure 4.2.11-1)	Actual Dewpoint
0800	1,185°F	-18°F	-39°F
1000	1,183°F	-18°F	-6°F
1200	1,184°F	-18°F	+3°F
1400	1,182°F	-18°F	-11°F
1600	1,188°F	-19°F	-6°F
1800	1,188°F	-19°F	-15°F
2000	1,160°F	-15°F	-14°F
2200	1,153°F	-14°F	-17°F

The dryer was returned to service at approximately 1000 hours and continued reactor operation resulted in a sufficient drying out period that by 2200 hours, reactor dewpoint was no longer in the non-acceptable range of Figure 4.2.11-1.

CAUSE  
DESCRIPTION:

The event of August 21, 1979, where one moisture reading at 0800 hours exceeded the curve of LCO 4.2.11, Figure 4.2.11-1, does not appear to be traceable to plant operating conditions at the time. The reading involved is the higher of two readings taken, with the second reading being well within the limits of LCO 4.2.11. See Table below for actual and allowable primary coolant moisture readings during this occurrence.

CAUSE  
DESCRIPTION (continued):

Time	Average Core Out- let Temperature	Allowable Dew- point (From Figure 4.2.11-1)	Actual Dewpoint	
			MM-1118	MM-1122
0600	1,183°F	-18°F	-33°F	-22°F
0800	1,165°F	-16°F	-35°F	-15°F
1000	1,297°F	Not Applicable	-34°F	-26°F

The event of August 31, 1979, is attributable to the dryer bypass which occurred at approximately 0815 hours, allowing moisture laden helium to be supplied to the helium circulators. This dryer bypass was the result of a faulty time delay relay.

CORRECTIVE  
ACTION:

No corrective action is applicable for the event of August 21, 1979.

For the event of August 30, 1979, involving bypassing the helium dryer, the faulty time delay relay was replaced and tested per approved procedures and the dryer was returned to service.

No further corrective action is anticipated or required.

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# LICENSEE EVENT REPORT

CONTROL BLOCK: (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 C O F S V 1 2 0 0 - 0 0 0 0 0 - 0 0 3 4 1 1 2 0 4 5  
7 8 9 14 15 25 26 30 57 CAT 58

CON'T  
01 REPORT SOURCE L 6 0 5 0 0 0 2 6 7 7 0 8 2 1 7 9 8 0 9 2 0 7 9 9  
7 8 60 61 68 69 74 75 80

## EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 On August 21, 1979, and on August 30, 1979, plant was operated with reactor dewpoint  
03 outside the limits of LCO 4.2.11, Figure 4.2.11-1. No accompanying events or  
04 probable consequences. No effect on public health or safety. Reportable per Techni-  
05 cal Specification AC 7.5.2(b)2. Similar events have been reported in Reportable  
06 Occurrence Reports 76-06, 77-02, 77-13, 78-16, and 78-39.  
07  
08  
09

09 SYSTEM CODE C B 11 CAUSE CODE E 12 CAUSE SUBCODE A 13 COMPONENT CODE R E L A Y X 14 COMP. SUBCODE H 15 VALVE SUBCODE Z 16  
7 8 9 10 11 12 13 18 19 20  
17 LER/RO REPORT NUMBER 7 9 21 22 23 0 3 1 24 26 27 0 3 28 29 30 L 31 32 0  
ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS 22 ATTACHMENT SUBMITTED NPRD-4 FORM SUB. PRIME COMP. SUPPLIER COMPONENT MANUFACTURER  
A 18 Z 19 Z 20 Z 21 0 0 0 0 40 Y 23 N 24 N 25 A 1 0 9 26  
33 34 35 36 37 40 41 42 43 44 47

## CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 No cause for August 21, 1979, event traceable to plant operation. Event of August 30,  
11 1979, was result of helium dryer bypass due to faulty time delay relay. Relay was  
12 replaced and tested, and the dryer returned to service.  
13  
14

15 FACILITY STATUS F 28 0 4 0 29 N/A 30 METHOD OF DISCOVERY A 31 Review of Plant Records 32  
7 8 9 10 12 13 44 45 46 80

16 ACTIVITY CONTENT RELEASED OF RELEASE Z 33 Z 34 N/A 35 AMOUNT OF ACTIVITY N/A 36 LOCATION OF RELEASE  
7 8 9 10 11 44 45 80

17 PERSONNEL EXPOSURES NUMBER 0 0 0 37 Z 38 N/A 39 DESCRIPTION  
7 8 9 10 11 12 13 80

18 PERSONNEL INJURIES NUMBER 0 0 0 40 N/A 41 DESCRIPTION  
7 8 9 10 11 12 13 80

19 LOSS OF OR DAMAGE TO FACILITY TYPE Z 42 N/A 43 DESCRIPTION  
7 8 9 10 11 12 13 80

20 PUBLICITY ISSUED N 44 N/A 45 DESCRIPTION  
7 8 9 10 11 12 13 80

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