

REPORT DATE: November 23, 1981

REPORTABLE OCCURRENCE 81-068

ISSUE 0

OCCURRENCE DATE: October 24, 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 80651-9298

REPORT NO. 50-267/81-068/03-L-0

Preliminary

IDENTIFICATION OF
OCCURRENCE:

During plant temperature fluctuation testing on October 24, 1981, the steam generator penetration interspace leakage was found to be in excess of the limit allowed by LCO 4.2.9 and the variance granted by the Nuclear Regulatory Commission on June 5, 1980. This is a degraded mode of LCO 4.2.9 and reportable per Fort St. Vrain Technical Specification AC 7.5.2(b)2.

EVENT
DESCRIPTION:

On May 28, 1980, during performance of the scheduled surveillance on PCRV closure leakage, the Loop 2 steam generator penetration interspace was found to be leaking pure helium into the reheat steam header. At that time, the leakage rate was within the limits of LCO 4.2.9, but it subsequently increased, and on June 4, 1980, exceeded the 400 pound per day limit of LCO 4.2.9. Relief was requested and granted to allow a leakage rate of 700 pounds per day based on the leakage path and compliance with certain administrative controls (Reference P-80139). It has since been determined that the interspace for module B-2-3 of the Loop 2 steam generator is the source of leakage of helium.

On October 24, 1981, at 1020 hours, the 700 pound per day leakage limit was determined to be exceeded. Plant conditions were changed in various attempts to reduce the leakage to acceptable values, and at 0950 on October 25, the leakage rate was decreased to less than 700 pounds per day, within the 24 hours allowed by LCO 4.2.9. On October 26, the reactor power was reduced to less than 2%, and the PCRV was depressurized to less than 100 psia.

On October 26, 1981, Public Service Company submitted a proposal to the Commission which would allow continued reactor operation for the completion of the RT-500 fluctuation testing program (Reference P-81270).

The proposal requested that, based on the defined leakage path and the capability of demonstrating the integrity of the primary and secondary closures, the penetration for module B-2-3 would be

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operated with an interspace pressure just slightly above cold reheat steam pressure, but below reactor vessel pressure.

Public Service Company received approval of this proposal for four weeks of operation to allow completion of testing.

CAUSE

DESCRIPTION:

Purified helium is leaking from the penetration interspace for steam generator module B-2-3 into the cold reheat steam piping.

CORRECTIVE

ACTION:

The administrative controls agreed to by the Nuclear Regulatory Commission and Public Service Company are being followed.

The penetration for steam generator module B-2-3 is being operated at the pressure requested in the proposal.

A relief valve and rupture disc assembly has been installed to provide overpressure protection for the interspace of module B-2-3 as required by LCO 4.2.7(d).

This problem is being evaluated in terms of future operation. The various alternatives of continued operation will be presented to the Nuclear Regulatory Commission upon completion of these evaluations.

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Edwin D. Hill
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Don Warembourg
Manager, Nuclear Production

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CONTROL BLOCK:										(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)									
C O F S V I										L I C E N S E N U M B E R									
L I C E N S E C O D E										L I C E N S E T Y P E									
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E V E N T D E S C R I P T I O N A N D P R O B A B L E C O N S E Q U E N C E S																			
During plant temperature fluctuation testing, the Loop 2 steam generator interspace leakage exceeded the limits of LCO 4.2.9 and the variance agreed to by Public Service Company and the NRC on June 5, 1980. This is being reported as a degraded mode of LCO 4.2.9 per Fort St. Vrain Technical Specification AC 7.5.2(b)2. Related occurrence - RO 81-067, Similar Reports - RO 81-030. No affect on public health or safety.																			
SYSTEM CODE										CAUSE CODE									
H B										X Z									
COMPONENT CODE										VALVE SUBCODE									
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OCCURRENCE CODE										REPORT TYPE									
0 3										L									
REVISION NO.																			
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ACTION TAKEN										SHUTDOWN METHOD									
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FUTURE ACTION										HOURS									
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CAUSE DESCRIPTION AND CORRECTIVE ACTIONS																			
Pure helium is leaking from the interspace into the reheat steam piping. Temporary relief was requested from the NRC and approved for 4 weeks. The problem will be evaluated in terms of further operation and the various alternatives of continued operation will be presented to the NRC upon completion of these evaluations.																			
FACILITY STATUS										METHOD OF DISCOVERY									
X										Operator observation									
% POWER										DISCOVERY DESCRIPTION									
0 7 1																			
OTHER STATUS										LOCATION OF RELEASE									
RT-500K										N/A									
ACTIVITY CONTENT																			
RELEASED OF RELEASE																			
Z																			
PERSONNEL EXPOSURES																			
NUMBER																			
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PUBLICITY ISSUED																			
N																			
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