Public Service Company of Colorado

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

June 15, 1982
Fort St. Vrain
Unit No. 1
P-82190

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. 50-267/82-020, 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. 50-267/82-020.

Very truly yours,

Don Warembourg
Manager, Nuclear Production

DW/cls

Enclosure

cc: Director, MIPC

IE-22

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

REPORT NO. 50-267/82-020/03-L-0

Final

IDENTIFICATION OF OCCURRENCE:

With the reactor operating at approximately 40% power, and the prestressed concrete reactor vessel (PCRV) pressurized greater than 100 psia, conditions were present which could have allowed certain interspaces between the primary and secondary penetration closures to be at a pressure less than or equal to primary system pressure. This condition constitutes a degraded mode of LCO 4.2.7(c) and is reportable per AC 7.5.2(b)2 of the Technical Specifications.

EVENT DESCRIPTION:

On May 17, 1982, at 0930 hours, a trace of airborne contaminants was detected in the Reactor Building. Upon investigation, the source was found to be a leaking fitting on a pressure differential indicator (PDI-11258) between the purified helium header which supplies helium to the high temperature filter absorber penetrations and the helium storage system. The airborne contaminants were analyzed to be noble gases which indicated a small amount of primary coolant was leaking backwards from the penetrations. It was determined that the normal helium supply path through the purification system had a reduced flow due to "icing" in the on-line purification train (train A). "Icing" is caused by a buildup of impurities within the low temperature absorber in the purification train which restricts the flow. The other purification train was available but was completing a regeneration cycle. As soon as the trouble was identified, bypass valves were opened to provide additional helium makeup from the high pressure storage bottles to help pressurize that portion of the purified helium header which had experienced in-flux of primary coolant. At 1000 hours, the airborne contaminants (no maximum permissible concentrations were exceeded) were dissipating. Since the airborne contaminants indicated a presence of primary coolant, it is assumed that the primary and secondary penetration interspaces were allowed to reach a pressure less than or equal to primary coolant pressure. This condition is a degraded mode of LCO 4.2.7, Section (c), and is reportable per AC 7.5.2(b)2 of the Technical Specifications.

CAUSE
DESCRIPTION:

A reduction in flow in the purified helium supply to the primary and secondary penetration interspaces allowed the penetration interspace pressure to decrease to a point which was less than or equal to primary coolant pressure. This reduction in flow was caused by a buildup of impurities within the low temperature adsorber in the "A" primary coolant purification train.

CORRECTIVE
ACTION:

Upon indication that the flow through the on-line purification train was restricted, additional helium was supplied downstream of the train from the high pressure helium storage system. At 1300 hours on May 17, 1982, this temporary system alignment was complete, and interspace pressure was being maintained from the high pressure helium storage system. This configuration allowed maintaining the interspaces at required pressures while preparations were underway to place the second purification train on line.

On 0645 hours on May 18, 1982, the "B" primary coolant purification train was placed in service, and "A" train placed in regeneration. Upon placing "B" train in service, the normal system flow path was regained, and the system lineup returned to normal.

No further corrective action is anticipated or required.

Prepared By: Owen J. Clayton
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Technical Services Engineering Supervisor

Reviewed By:
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Don Warembourg
Manager, Nuclear Production