

LICENSEE EVENT REPORT

CONTROL BLOCK: 1 (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 N E F C S 1 2 0 0 0 0 0 0 0 0 0 0 3 4 1 1 1 1 4 5

LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 57 CAT 58

CON'T
0 1 REPORT SOURCE L 6 0 5 0 0 0 2 8 5 7 0 9 2 4 8 1 8 1 0 2 0 8 1 9

DOCKET NUMBER 68 69 EVENT DATE 73 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10

0 2 During cold shutdown, containment cooling fan/coil VA-7C/VA-8A was placed in service

0 3 to provide containment air cooling. When pressurized, a Component Cooling Water

0 4 (Auxiliary Coolant) leak developed in coil VA-8A when a coil end plug blew out. The

0 5 loss of the cooling coil end plug caused a spill of 100 to 200 gallons of Auxiliary

0 6 Coolant inside the Containment. Once the source of the leak was determined, coil

0 7 VA-8A was isolated to terminate the leak.

0 8

0 9 SYSTEM CODE S B 11 CAUSE CODE B 12 CAUSE SUBCODE C 13 COMPONENT CODE H T E X C H 14 COMP. SUBCODE C 15 VALVE SUBCODE Z 16

17 LER/RO REPORT NUMBER 8 1 EVENT YEAR 8 1 SEQUENTIAL REPORT NO. 0 0 9 OCCURRENCE CODE 0 3 REPORT TYPE L REVISION NO. 0

ACTION TAKEN B 18 FUTURE ACTION Z 19 EFFECT ON PLANT Z 20 SHUTDOWN METHOD Z 21 HOURS 0 0 0 22 ATTACHMENT SUBMITTED Y 23 NPRO-4 FORM 508 N 24 PRIME COMP. SUPPLIER A 25 COMPONENT MANUFACTURER A 2 2 0 26

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

1 0 A loosely installed threaded end plug on Cooling Coil VA-8A (part no. 107-852400-1)

1 1 vibrated out to the point at which it was blown free, stripping the threads. The

1 2 threads have been retapped, the plug installed and the coil pressurized to verify

1 3 integrity.

1 4

1 5 FACILITY STATUS H 28 % POWER 0 0 0 29 OTHER STATUS NA 30 METHOD OF DISCOVERY A 31 DISCOVERY DESCRIPTION Engineer Observation 32

1 6 ACTIVITY CONTENT Z 33 Z 34 AMOUNT OF ACTIVITY NA 35 LOCATION OF RELEASE NA 36

1 7 PERSONNEL EXPOSURES NUMBER 0 0 0 37 TYPE Z 38 DESCRIPTION NA 39

1 8 PERSONNEL INJURIES NUMBER 0 0 0 40 DESCRIPTION NA 41

1 9 LOSS OF OR DAMAGE TO FACILITY TYPE D 42 DESCRIPTION NA 43

2 0 PUBLICITY DESCRIPTION N 44 NA 45

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PDR ADDCK 05000285
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NRC USE ONLY

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LER 81-009
Omaha Public Power District
For: Calhoun Station Unit No. 1
Docket No. 05000285

ATTACHMENT NO. 1

Safety Analysis

The containment air recirculation and cooling fan units, VA-8A/7C and VA-8B/7D, are designed to help limit the leakage of airborne activity from the containment in the event of a loss of coolant accident. This is accomplished by: 1) removal of heat released to the containment atmosphere; and 2) recirculation of the air in containment to prevent the accumulation of hydrogen pockets. These units also function during normal plant operation, outside the context of engineered safeguards, to cool the containment atmosphere as required for personnel access.

The containment air cooling unit (VA-8A) failure occurred while the plant was in refueling shutdown condition (Mode 5) with a boron concentration of 1852 ppm and a reactor coolant system cold leg temperature of 120°F. This condition provides a minimum shutdown margin of 5% with all CEA's withdrawn. In addition, it had been over 5 days since the reactor had been shutdown from power operation; therefore, a substantial portion of decay heat had been removed.

Under these conditions, the containment cooling system need not be operational as per Technical Specification 2.4. All equipment associated with the shutdown cooling system was functional and providing core decay heat removal.

The loss of containment cooling unit VA-8A during power operation would not have affected the ability to reduce the containment pressure to within design limits in the event of a DBA. Still available for use were the containment spray system, two air filtering and cooling units, one complete air cooling unit, and the fan associated with cooling coil 8A, VA-7C. Any two spray pumps or two air filtering and cooling units would provide sufficient cooling capacity following a DBA. During normal power operation, the reactor operator would be alerted by the CCW surge tank alarm if a leak were to occur. Each individual CCW load has a flow indication which could be used to identify the specific leakage source and that source could then be isolated. Even a complete loss of Component Cooling Water (CCW) through the blown out plug would not have jeopardized containment cooling because it would have taken several minutes to lose CCW inventory through the hole, during which time the containment pressure and temperature would have been significantly reduced. Once CCW was lost, the Raw Water system could be cut in to provide the backup for CCW as designed.

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ATTACHMENT NO. 2

Cause Description/Corrective Action

While containment air cooling and filtering units VA-3A and VA-3B were shut down to take routine charcoal samples, containment air cooling unit VA-7C (which includes cooling coil house VA-8A) was placed in service. Engineers noticed that auxiliary coolant was leaking from the housing. The control room was notified and the cooler was shut down and tagged out of service. The spill was cleaned up.

A coil end plug was found to have blown out with slight stripping of the threads. The plug had apparently vibrated loose before full detachment. The coil end fitting and plug were rethreaded and the plug reinstalled. The unit was pressurized and checked for leaks without further incident. The unit was returned to an operable status.

The subject cooling coil will be checked again for leakage during the Component Cooling Water In-service Inspection Hydro scheduled later in the refueling outage. This hydro will verify integrity of the whole CCW system including all cooling coils.

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ATTACHMENT NO. 3

Failure Data

This is the first failure of this type at the Fort Calhoun Station.

LTK