8206010 /2/

DESCRIPTION

DESCRIPTION (45

PUBLICITY

NRC USE ONLY

Sequoyah Nuclear Plant

LER SUPPLEMENTAL INFORMATION

SQRO-50-327/82051 Technical Specification Involved: 3.3.2.1, 3.3.3.1, 3.4.6.1, 3.0.3

Reported Under Technical Specification: 6.9.1.13.b

Date of Occurrence: 04/23/82 Time of Occurrence: 0500 CST

Identification and Description of Occurrence:

At 0500 CST on 04/23/82, the containment ventilation isolation system was declared inoperable due to the loss of its automatic actuation capabilities. The unit met the requirements of LCO 3.0.3.

Conditions Prior to Occurrence:

Unit 1 at 100% power, 578 degrees F, 2235 psig.

Apparent Cause of Occurrence:

The containment ventilation isolation signal was reset after the system had been activated. If rechallenged, the reset would have prevented the system's automatic actuation capabilities from working. The root cause surrounds the design of the containment ventilation isolation logic in that a reset of the isolation signal will not allow automatic reactuation.

Analysis of Occurrence:

Upon receipt of a high radiation signal, radiation monitors 1-RM-90-106 and 112 initiated a containment ventilation isolation. The high radiation signal was caused by a bonnet gasket leak from the letdown valve 1-FCV-62-70. The isolation signal included the closing of the containment isolation valves to both radiation monitors, rendering the monitors inoperable. With the monitor inoperable, the unit complied with action statements 26 and 27 of LCO 3.3.3.1 (Process Monitoring Equipment) and with the action statement for LCO 3.4.6.1, (Reactor Coolant Leakage Detection Systems), a six hour shutdown requirement. In order to get out of the six hour shutdown requirement, the containment ventilation isolation signal was reset allowing manual opening of the radiation monitor is lation valves. With the present logic of containment ventilation isolation, the resetting of the isolation signal would prevent any further automatic isolation capability with the high radiation signal from the monitors not being cleared before the reset action. This rendered the containment ventilation isolation system inoperable and with the opening of the radiation monitors isolation valves, the unit had to comply with the requirements of LCO 3.0.3 since LCO 3.3.2.1 action statement 19 had been exceeded.

Corrective Actions

The letdown valve 1-FCV-62-70 bonnet leak was repaired and the radiation monitors were reset by a special performance of SI-83. The monitors setpoint was one-tenth of the technical specification allowable when the high radiation alarm was received. A change was made to TI-18 to adjust the setpoint for total gas to one-fifth of the technical specification allowable to help prevent inadvertent high radiation actuation of containment ventilation

isolation. With the monitors reset, the containment ventilation isolation system automatic actuation was reestablished and the monitors and the ventilation isolation system were returned to service at 0800 CST on 04/23/82.

To help prevent recurrence, a study will be made to determine the possibility of changing the isolation logic to delete the requirement of the closing of the radiation monitoring containment isolation valves upon a containment ventilation isolation signal. Also, a design change request (DCR) has been issued to consider changing the isolation logic so that the reset will not cause a loss of containment ventilation isolation automatic actuation from a safety injection signal.

Failure Data:

None.