

DUKE POWER COMPANY  
OCONEE NUCLEAR STATION - UNIT 1  
UNUSUAL EVENT REPORT  
UE-269/73-7

FAILURE OF AN ENGINEERED SAFEGUARDS VALVE TO CLOSE ON SIGNAL

Introduction

On June 26, 1973, Component Cooling Valve CC-8 did not close as required during a functional test of Engineered Safeguards (ES) valves. This incident is classified as an unusual event as defined by Section 1.9d of the Oconee Unit 1 Technical Specifications.

Description of the Incident

On June 26, 1973, the periodic test PT/O/A/150/15, "Reactor Building Remotely Operated Isolation Valve and ES Valve Functional Test," was performed. During this test, Component Cooling Valve CC-8 failed to close as required upon receipt of the Engineered Safeguards (ES) signal. Investigations showed that the valve was locked in the open position by a pin inserted in the manual operator. This valve is a pneumatic-opened and spring-closed valve. To manually open this valve, one must turn the manual operator to the closed position, then insert a pin which is attached to the valve yoke. Upon insertion of the pin, the valve may be manually opened, but remote operability is over ridden. Apparently, the valve had been opened using this method, and the pin had not been removed, thus preventing remote closure of the valve.

Corrective Action

To preclude recurrence of this incident, the pin on this valve and other similar ES valves has been removed and placed in the custody of the shift supervisor. On June 28, 1973, the operability of Valve CC-8 and other similar ES valves was verified.

Safety Analysis

The component cooling system performs no safety function, but penetrates the reactor building to provide cooling water to the letdown coolers, reactor coolant pump coolers, control rod drive mechanism cooling coils, and the

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quench tank coolers. The component cooling system pumps and coolers are located outside the reactor building. In the event of an ES signal, the reactor building outlet valves, CC-7 inside and CC-8 outside the building, close. The inlet valves to the building are check valves. The component cooling pumps continue to operate to supply cooling water to components outside the reactor building. During the test, the isolation valve inside the reactor building, CC-7, an electric motor operated valve, operated satisfactorily. Upon activation of the ES system during reactor operation, the component cooling system outlet from the reactor building would have been isolated by operation of valve CC-7.