



- I. LER NUMBER: LER/RO 80-10/03L-0
- II. LICENSEE NAME: Common Pleth Edison Company  
Quad-Cities Nuclear Power Station
- III. FACILITY NAME: Unit Two
- IV. DOCKET NUMBER: 050-265
- V. EVENT DESCRIPTION:

On May 17, 1980, during a Unit Two condenser maintenance outage, the quarterly MSIV closure timing surveillance procedure QOS 250-4, was performed. While performing this test, MSIV A0 2-203-1C closed in 2.5 seconds, and MSIV A0 2-203-2D closed in 9.1 seconds. These times exceed the limit of 3 seconds minimum and 5 seconds maximum closing time for any MSIV as stated in Technical Specification Table 3.7-1. The other 6 MSIVs were within the Technical Specification limits.

VI. PROBABLE CONSEQUENCES:

The main steam isolation valves are required to close in less than five seconds to prevent fuel rod rupture, and greater than three seconds to prevent abnormal transient in the event of a steam line break outside the containment. The 2D valve is the outboard primary containment isolation valve in the D steamline. The 1D inboard valve closed in less than five seconds to isolate the D steam line. The 1C inboard primary isolation valve closed in 2.5 seconds which would have caused a slight transient. This transient would be distributed across the other three main steam lines, subsequently safe reactor operation was not affected as a result of this occurrence.

VII. CAUSE:

The cause of this occurrence is designated as equipment failure. The speed control valve adjustment on the hydraulic control cylinder had varied, thus affecting the valve travel time. The control valve is a needle valve that regulates the speed of the hydraulic oil flowing from the bottom to the top of the piston. The piston is attached to the stem of the MSIV to regulate the travel speed of the valve.

The speed control unit is manufactured by Flick-Reedy Corp., Drawing No. File 4536.

VIII. CORRECTIVE ACTION:

The speed control valves were adjusted, and the valves were tested three times with a 2D valve closure time of 3.6 seconds and the 1C valve closure time of 3.4 seconds.