1. LER NUMBER: LER/RO 83-13/03L-0

11. LICENSEE NAME: Commonwealth Edison Company

Quad-Cities Nuclear Power Station

III. FACILITY NAME: Unit One

IV. DOCKET NUMBER: 050-254

V. EVENT DESCRIPTION:

On March 19, 1983, while performing the Operators' Surveillance/Turnover Sheets Unit 1 Equipment Attendants, QOS 005-S13, the Equipment Attendant discovered the Inboard Main Steam Isolation air pilot valve, 1-203-1A, did not show proper temperature indication at the Drywell Environs instrument rack 2251-38. Instrument Maintenance personnel investigated the problem and determined the thermocouple was inoperable. A load reduction to less than 40% power was scheduled in order for Maintenance personnel to make a Drywell entry to repair the thermocouple. Technical Specification 3.7.D.4 states that the Main Steam Isolation Valve (MSIV) air pilot valve temperature must be less than 170°F.

VI. PROBABLE CONSEQUENCES OF THE OCCURRENCE:

The temperature of the pilot valve after the thermocouple was reconnected was verified to be less than 130°F. Continued Reactor operation is permissible for seven days after finding a temperature greater than 170°F. In this case, the temperature monitor was considered inoperable since it would not indicate temperatures in excess of 170°F. Temperatures on the other three MSIV air pilot valves were closely monitored for the duration of the event for any indications that might suggest an abnormally high temperature in the Drywell. The temperatures all remained within allowable limits during this time, therefore, the safety significance was minimal.

VII. CAUSE:

The cause of this indication failure is personnel error. On March 14, during a Maintenance Outage, Instrument Maintenance personnel were instructed to work on a MSIV drain line thermocouple. However, they inadvertently began working on the MSIV pilot valve thermocouple which was a few feet away from the drain line thermocouple. A bad cable from the thermocouple to the junction box was suspected and was therefore replaced. The new cable was erroneously connected from the MSIV pilot valve thermocouple to the drain line thermocouple terminals in the junction box. The MSIV pilot valve thermocouple was therefore reading on a temperature recorder in the Control Room instead of on the Environs rack.

VII. CAUSE: (Continued)

The open thermocouple from the drain line was reading identical to the previous reading due to a problem with the temperature indicator on the Environs rack. The unit was started up on March 17. The daily readings of the pilot valve temperatures appeared normal at that time. On March 18, maintenance was being performed on the temperature indicator. Upon completion of this work, the open drain line thermocouple began reading upscale. On the morning of March 19, while taking his routine plant readings, the Operator became aware that there was an equipment malfunction concerning the pilot valve thermocouple.

VIII. CORRECTIVE ACTION:

When the failed indicator was found, the immediate corrective action was to verify that the temperature of the other three MSIV pilot valves was less than 170°F. On March 22, 1983, Reactor power was reduced to less than 40% rated core thermal power. Maintenance personnel entered the Drywell and connected the thermocouple leads to the correct terminals in the junction box. Affected personnel were reminded of the need to ensure the correct equipment is being worked on.