

**Licensee/Facility:**

CAROLINA POWER & LIGHT CO.  
 Harris  
 Raleigh, North Carolina  
 Dockets: 050-00400  
 [1] W-3-LP

**Notification:**

MR Number: 2-2004-0016  
 Date: 11/07/2004

**Subject:** FAILURE OF HARRIS FEEDWATER ISOLATION VALVE DURING REFUELING OUTAGE  
 STARTUP

**Discussion:**

On November 7, 2004, at 4:35 p.m, with the plant at approximately 7% power, preparing for startup from a refueling outage, Shearon Harris manually started the A motor driven auxiliary feedwater (MDAFW) pump in response to unplanned lowering of steam generator (S/G) level in the C S/G. The licensee made event notification #41179 for this valid actuation of a safety system.

The licensee's initial investigation focused on the C main feedwater (MFW) regulating bypass valve and identified a leaking air connection. The bypass valve is designed to fail closed on loss of air. Following repair, power was again increased. The C S/G level failed to control and the power ascension was aborted. Additional trouble shooting was unsuccessful and the reactor was brought to hot shutdown on November 8.

Subsequent investigation determined that the lowering of S/G level resulted from the C MFW isolation valve, a double wedge gate valve, being closed instead of open. Although the valve's position indicated closed in the control room, the valve actually failed to open indicating a possible valve stem separation. The AFW flow path, however, is separate from MFW and was not impacted by the failed valve.

On November 10, the licensee verified that the MFW isolation valve stem had separated from the disc, and brought the plant to cold shutdown. Disassembly and examination of the valve identified internal damage to the valve disc and seat. The licensee plans to investigate the cause of the valve failure, assess past operability, and inspect the two remaining feedwater isolation valves.

**Accession No.**  
 ML043170256

**Accession Dt.**  
 11/10/2004

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