

**PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE**

PNO-II-10-002A

This preliminary notification constitutes EARLY notice of events of possible safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by Region II staff (Atlanta, Georgia) on this date.

**Facility:**

Carolina Power and Light Company  
H.B. Robinson Steam Electric Plant  
Harstville, SC  
Dockets/License: 50-261/ DPR-23

**Licensee Emergency Classification:**

- Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

SUBJECT: UPDATE - FIRES AFFECTING SAFETY RELATED EQUIPMENT; SPECIAL INSPECTION  
UPGRADED TO AN AUGMENTED INSPECTION

On March 28, at 6:51 p.m., H.B. Robinson Steam Electric Plant Unit 2 experienced an automatic reactor trip due to an undervoltage condition on the non-safety related 4kV bus #4 and a subsequent reactor coolant pump trip. An undervoltage condition occurred on the safety related bus E-2 and the "B" emergency diesel generator started and supplied power to the E-2 bus. At 6:56 p.m. a fire was reported in the non-safety related 4kV bus #5 (which is powered from bus #4). The licensee's fire brigade responded and the fire in 4kV bus #5 was reported out at 7:05 p.m. Following the reactor trip, at 7:00 p.m., a safety injection (SI) occurred due to low pressurizer pressure caused by the post trip cooldown. The plant was stabilized and the licensee initiated an event response team.

At 10:35 p.m. a loud noise and thick smoke in the non-safety 4kV bus #4 room were reported to the control room. At 11:00 p.m. the licensee declared an Alert per Emergency Action Level HA2.1, due to a fire affecting the operability of plant safety systems required to establish or maintain safe shutdown. DC bus grounds were present which affected the safety related buses. The licensee's fire brigade responded and the fire in the bus #4 supply breaker to bus #5 was reported out at 11:01 p.m. The Alert was terminated on March 29, at 1:34 a.m. after the DC bus grounds were isolated.

The NRC resident inspectors responded to the reactor trip and monitored the licensee's actions throughout the subsequent events. Robinson Unit 2 remains shutdown and has commenced a previously scheduled refueling outage.

On March 30, Region II dispatched a Special Inspection Team (SIT) to H.B. Robinson to assess the circumstances surrounding the event. The inspection was focused on details of the fire event, control room operator response, several electrical equipment issues, and identification of potential generic issues.

Preliminary results indicate that the initial fault involved installed electrical cabling that did not meet design specifications for insulation. Also, control power was not available to a breaker that could have isolated the fault.

On April 12, 2010, the SIT identified additional deficiencies related to the post trip response to this event. Specifically, potential problems related to providing cooling to the reactor coolant pump seals were discovered. These problems involved both equipment malfunctions as well as operator performance issues. Due to the increased risk associated with these new issues, Region II determined the need to upgrade the SIT to an Augmented Inspection Team (AIT). The AIT will be dispatched to the site on Monday, April 19.

The information presented herein has been discussed with the licensee and is current as of 3:24 p.m., April 15, 2010.

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