

January 19, 2006

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-III-06-001A

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 the Region III staff on this date.

<u>Facility</u>	<u>Licensee Emergency Classification</u>
Exelon Generation Co.	<input type="checkbox"/> Notification of Unusual Event
Quad Cities Nuclear Power Station	<input type="checkbox"/> Alert
Docket: 50-254 and 50-265	<input type="checkbox"/> Site Area Emergency
License: DPR-29 and DPR-30	<input type="checkbox"/> General Emergency
	<input checked="" type="checkbox"/> Not Applicable

SUBJECT:     DEGRADED ACTUATORS FOR ELECTROMAGNETIC RELIEF VALVES  
              (UPDATE)

DESCRIPTION:

Quad Cities Unit 2 was shut down on December 30, 2005, following the discovery of degradation of the electromatic relief valve (ERV) actuators. Unit 1 was lowered to 85 percent power on December 31, 2005, following the discovery on Unit 2. On January 6, 2006, the licensee shut down Unit 1 to inspect the ERV actuators.

The NRC initiated a Special Inspection Team (SIT) on January 9, 2006, to review the circumstances surrounding the degradation and to follow the licensee's root cause efforts.

The electromatic relief valves, four on each unit, are used for automatic depressurization and to mitigate an Anticipated Transient Without Scram event. All four valves on both units showed some degradation. The 3D valve on Unit 2 and the 3D valve on Unit 1 did not stroke properly when tested and two other valves on Unit 1 (3B & 3C) may not have worked properly. The initial cause was thought to be flow induced vibration from higher power levels authorized in an extended power uprate. The actuators for all four valves on both units were replaced, and both units were returned to previous full power level (85 percent of the extended power uprate level) on January 8, 2006, for Unit 1 and January 3, 2006, for Unit 2.

The licensee shut down Unit 2 on January 13, 2006, because of additional concerns with pivot points internal to the actuators and welds on the turnbuckles connecting the actuators to the main valves. While the pivot points were found to be in satisfactory condition, one of the Unit 2 valves failed to function properly during testing. As a result, Unit 1 was shut down on January 15, 2006, to inspect and test the ERVs. All four Unit 1 valves were successfully tested.

**UPDATED INFORMATION - Restart of Quad Cities Units 1 and 2:** Quad Cities staff conducted extent of condition walkdowns and completed repairs to the ERVs and associated piping supports on January 18, 2006. The licensee also performed calculations which projected the stresses on the turnbuckles to be well below endurance limits. The licensee committed to maintain both units at pre-EPU power levels upon their return to service. The SIT reviewed the licensee's actions to date and the NRC agreed the plants were acceptable to restart. Restart of both units began late on January 18, 2006, and was in progress. The licensee's root cause determination efforts continue and the SIT continues its review.

The States of Illinois and Iowa will be informed. Region III (Chicago) issued a news release on the special inspection on January 10, 2006, and continues to respond to news media inquiries. The information in this preliminary notification has been reviewed with licensee management.

This information is current as of 0800 a.m. CST on January 19, 2006.

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