March 8, 2006

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-III-06-005A

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.

Facility	Licensee Emergency Classification
LaSalle Unit 1	___ Notification of Unusual Event
Exelon Generation Co.	___ Alert
Marseilles, IL	X Site Area Emergency
Docket: 50-373	___ General Emergency
License: NPF-11	___ Not Applicable

SUBJECT: INDICATION FAILURE FOR THREE CONTROL RODS FOLLOWING REACTOR TRIP (UPDATE)

DESCRIPTION:

At 12:23 a.m. CST on February 20, 2006, the Unit 1 reactor shut down automatically from 6 percent power, and reactor instrumentation showed that three control rods failed to insert fully into the reactor core. There are 185 control rods which control reactor power level and which are fully inserted to shut down the reactor.

Because of the uncertainty of the position of the three control rods, the licensee declared a Site Area Emergency under its emergency plan at 12:28 a.m. After determining that the reactor was shut down (i.e. subcritical), the licensee terminated the emergency classification.

The reactor remains shut down in a refueling outage.

Region III (Chicago) initiated a special inspection to review the circumstances surrounding the control rod indicator problem and the licensee's investigation and corrective actions.

The Region III special inspection was concluded on February 27. The inspectors concluded that the reactor operators' response and emergency notification classification to the event were appropriate. The licensee's investigation determined that at least two of the three control rods were fully inserted, but that the instrumentation did not record the position of the rods. The licensee's post event analysis determined that the reactor would have been safely shut down in the unlikely situation where all three control rods remained fully withdrawn. The licensee is still investigating the position of the third control rod.

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The uncertain control rod indication was due to friction between the control rods and the fuel channels due to channel bowing or deformation. When inserted, the control rods were held in a position slightly beyond the point where instrumentation would show a fully inserted indication.

Fuel channel deformation is a known industry issue and the licensee had been following the vendor's recommendations addressing this phenomenon. Prior to the outage, the licensee had identified 73 fuel bundles meeting the criteria for potential channel bowing/deformation. The licensee has reevaluated its fuel plan and now plans to discharge all susceptible bundles to the spent fuel pool. Subsequent inspections are planned for specific fuel bundles discharged to the spent fuel pool to further evaluate the cause of the channel deformation/bowing.

While the special inspection has been completed, the resident inspectors are continuing to follow the licensee's ongoing root cause evaluation of the failure of the electro-hydraulic turbine control system which led to the reactor shutdown. Further NRC inspection is also planned on the rod worth minimizer to determine if the equipment provided control room operators with appropriate information regarding control rod position during the shutdown.

The State of Illinois has been notified of this updated information.

The licensee and the NRC issued a news release on this event. The information in this preliminary notification has been reviewed with licensee management.