

August 23, 2010

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-III-10-014A

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

Braidwood Units 1 and 2
Exelon Generation Co., LLC
Braceville, IL
Docket: 50-456 and 50-457
License: NPF-72; NPF-77

Licensee Emergency Classification

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

SUBJECT: SHUTDOWN OF BRAIDWOOD REACTORS UNIT 1 & 2 (UPDATE)

DESCRIPTION:

On August 16, 2010, Braidwood Unit 2 automatically tripped as the result of a main generator fault that occurred at approximately 2:00 a.m. CDT. Following the Unit 2 reactor trip, the reactor shut down as designed. All safety systems functioned normally except for a failed open auxiliary feedwater flow control valve. Operators quickly detected this problem and manually utilized a redundant valve in the flow path to control auxiliary feedwater flow to the Steam Generator.

Thirteen minutes later, Unit 1 automatically tripped on a turbine trip due to a loss of main condenser vacuum. The loss of main condenser vacuum was caused by the tripping of two of the three main condenser circulating water pumps. The degraded main condenser vacuum on Unit 1 caused plant operators to utilize the Unit 1 Steam Generator Atmospheric Power Operated Relief Valves to maintain reactor coolant temperature. The steam released contained tritium at concentrations lower than the regulatory limit for the public. No negative health impact to the public is expected as a result of the steam release.

A special inspection team is currently onsite to review the facts, circumstances, and the licensee's actions surrounding the incident.

The NRC reviewed the utility's interim corrective actions and concluded that the utility completed the necessary repairs to return the units to service. Braidwood Unit 1 restarted and synchronized to the electrical grid on August 21, 2010, at 3:57 a.m. CDT. Braidwood Unit 2 restarted and synchronized to the electrical grid on August 22, 2010, at 6:21 p.m. CDT.

The NRC resident inspectors responded to the reactor trip, monitored the licensee's response to the incident and observed the reactor startups.

State and local officials have been informed.

The information presented in this Preliminary Notification has been discussed with licensee management and is current as of August 23, 2010, at 1:30 p.m.

ADAMS Accession Number ML102350511

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