

## PRELIMINARY NOTIFICATION- REGION III

August 5, 2009

### PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-III-09-007A

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 Nuclear Station  
Exelon Generation Co., LLC  
Braceville, IL  
Docket: 50-457  
License: NPF-77

#### **Licensee Emergency Classification**

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

SUBJECT: UNUSUAL EVENT AT BRAIDWOOD UNIT 2 DUE TO LOSS OF OFFSITE POWER  
UNIT WILL REMAIN SHUT DOWN FOR MORE THAN 72 HOURS (UPDATE)

#### DESCRIPTION:

On July 30, at 8:59 p.m. CDT, Braidwood Unit 2 automatically tripped as a result of an electrical disturbance.

During the event, both auxiliary transformers, which supply offsite power to Unit 2 safety-related equipment, tripped off-line. The emergency diesel generators started supplying safety-related equipment with power.

All safety-related systems functioned as required. In accordance with plant procedures, the utility declared an Unusual Event (UE) because offsite power was unavailable for more than 15 minutes. The utility restored offsite power to Unit 2 at 12:36 a.m. CDT on August 2, 2009 and exited the Unusual Event.

The utility is trying to determine the cause of the electrical disturbance.

The transient also resulted in a loss of power to the non-safety related buses. This caused the condenser to become unavailable for cooling the steam generators. Instead, safety-related equipment, such as the auxiliary feedwater system, was used for cooling. As a result, steam was released to the environment where it quickly dissipated. The steam release contained a very low concentration of tritium. Preliminary analysis indicates the amount of tritium was less than one percent of the NRC limits. A more detailed evaluation will be completed as part of the NRC baseline inspection effort. No negative health impact to the public is expected as a result of the steam release.

Braidwood Unit 2 restarted and synchronized to the electrical grid on August 5, 2009, at 3:31 a.m. CDT.

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

Unit 1 continues to operate at full power.

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 5, 2009, at 11:30 a.m.

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