

DCS No.:05000277278030915

Date: September 16, 2003

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-I-03-027

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 I staff on this date.

Facility:

Exelon Nuclear

Peach Bottom Atomic Power Station Units 2 & 3

Delta, PA

Licensee Emergency Classification:

X Notification of Unusual Event

\_\_\_ Alert

\_\_\_ Site Area Emergency

\_\_\_ General Emergency

\_\_\_ Not Applicable

Docket Nos.: 05000277; 05000278

License No.: DPR-44; DPR-56

SUBJECT: DUAL UNIT REACTOR SCRAM DUE TO ELECTRICAL GRID DISTURBANCE

On September 15, 2003, Region I responded to events associated with electrical grid transients that caused Peach Bottom Units 2 and 3 to scram. On September 15, at approximately 1:32 a.m., far from the site, breakers on the grid did not properly function to isolate a lightning strike and caused a low voltage condition on both offsite power sources to Peach Bottom. All four emergency diesel generators (EDG) immediately started and loaded all plant safety buses. Voltage returned to normal on offsite power source in approximately one minute.

The power interruption to the safety buses resulted in an automatic reactor scram and main steam isolation valves closure on both units at approximately 1:33 a.m. All control rods inserted. The high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) systems automatically started to control reactor water level. Safety relief valves (SRV) automatically opened to control reactor pressure. One SRV in Unit 3 initially stuck open, challenging the operators until it closed at about 400 psi reactor pressure. Operators controlled reactor pressure using SRVs, HPCI, and RCIC. At 2:30 a.m., the E-2 emergency diesel generator tripped on low jacket coolant pressure. The emergency diesel generator trip affected a 4 KV safety bus on each unit, which were subsequently transferred back to offsite power. Following the trip of the E-2 emergency diesel generator, Exelon declared an Unusual Event, based on the shift manager's discretion because of degrading plant conditions. At approximately 7:40 a.m. Exelon restored safety and non-safety electrical buses to their normal configuration. At 10:46 a.m. Exelon terminated the Unusual Event. The operators were challenged, somewhat by a number of equipment problems, but were successful in placing the plant in safe condition.

Unit 2 and Unit 3 were placed in a cold shutdown condition at 4:25 a.m. and 1:20 p.m. respectively, on September 16, 2003.

Resident and regional inspectors responded to the event and observed activities in the control room and Technical Support Center. Several inspectors will remain on-site this week evaluating the licensee's response and investigation. NRC Region I Incident Response Center (IRC) was activated in the Monitoring Phase of Normal Mode until 6 p.m. 9/15. Headquarters and Region IV IRC also monitored site activities. The facts of this PN were verified with Exelon management.

The Region I Public Affairs is prepared to respond to media inquiries.

The Commonwealth of Pennsylvania and State of Maryland have been informed.

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(610) 337-5209

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Licensee: \_\_\_\_\_  
(Reactor Licensees)

DOCUMENT NAME: G:\BRANCH4\Peach Bottom\PN 9-16-03 Grid Disturbance.wpd

OFFICE	RI/DRP	RI/ORA	RI/ORA	RI/DRP	
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