

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-I-10-004

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

Susquehanna Steam Electric Station
PPL, Susquehanna, LLC.
Berwick, PA
Docket: 50-387

Licensee Emergency Classification

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

SUBJECT: SUSQUEHANNA UNIT 1 MANUAL SCRAM AND SHUTDOWN GREATER THAN 72 HOURS DUE TO AN INTERNAL FLOODING EVENT

At 4:41 p.m. on Friday July 16, 2010, Susquehanna Unit 1 operators manually scrambled the reactor due to a non-isolable circulating water leak in the main condenser bay.

At 3:20 p.m. the Unit 1 control room received a main condenser bay flooding alarm. Plant operators responded and observed water in the lower level of the condenser bay coming from the vicinity of the main condenser waterbox. After manually downpowering to 40 percent power and unsuccessful attempts to isolate the leak, the operators manually scrambled the Unit 1 reactor in order to secure the circulating water pumps, isolate the circulating water system and isolate main condenser. By approximately 7:00 p.m., the circulating water motor-operated valves were manually shut isolating the leak. Approximately 12 feet of water entered the main condenser bay, corresponding to approximately 950,000 gallons of river water. Unit 2 remained at 94.4 percent power and was not affected by this event.

Currently, Unit 1 is stable in Mode 4 and shutdown cooling is in service. There are no indications at this point that any unmonitored releases of radioactive liquids occurred during this event. The water in the condenser bay and condensate storage tank (CST) berm area were determined to contain low levels of tritium (condenser bay and CST berm) and Cobalt-60 (CST berm only) contamination. The licensee is currently in the process of dewatering the Unit 1 main condenser bay. The water will be sampled and processed via the normal rad waste system and a mobile waste treatment system to ensure discharge limits are met prior to discharging the water through the cooling tower blowdown lines. As of July 20, 2010, dewatering efforts continue with approximately half the water removed from the condenser bay. Damage assessments and repairs to balance-of-plant equipment in the condenser bay are being conducted. The event did not affect the operability of any safety-related equipment on either Unit 1 or 2.

The NRC resident inspectors responded to the control room and are providing event follow-up. In addition, Region I will follow the licensee's actions and root cause evaluations through baseline inspections to review the circumstances surrounding the event and any radiological impacts.

State and local officials have been informed. PPL issued a press release describing the event on Friday July 16, 2010.

The information presented herein has been discussed with the Susquehanna Plant Manager and is current as of July 20, 2010, at 4:00 p.m.

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

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