

PRIORITY ATTENTION REQUIRED MORNING REPORT - REGION I OCTOBER 14, 1993

Licensee/Facility:

Baltimore Gas & Elec Co.  
Calvert Cliffs 1 2  
Lusby, Maryland

Notification:

MR Number: 1-93-0106  
Date: 09/29/93  
RI P/C

Dockets: 50-317,50-318  
PWR/CE,PWR/CE

Subject: EXCESSIVE LEAKAGE FROM SAFETY RELATED CLOSED LOOP COOLING WATER SYSTEM

Reportable Event Number: N/A

Discussion:

During routine followup at Calvert Cliffs, inspectors identified a potential generic concern involving safety-related closed loop cooling systems that do not have a safety-related makeup water source. On September 29, 1993, BG&E removed a service water (SRW) train from service following the discovery of excessive system leakage. The leak rate was about 26 gpm from one ruptured heat exchanger tube. The service water system is a closed loop system that provides cooling to the emergency diesel generators (EDGs), the containment air coolers and the spent fuel pool heat exchangers, among other systems. It has no seismically qualified source of makeup water, but it is required to remain operable throughout a plant event to support the EDGs. The duration of a plant event is defined by the UFSAR to be 30 days. BG&E's calculations show that, with normal system leakage of 2 gpm and no makeup water, net positive suction head to the SRW pumps could be lost in 13 hours. High

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leak rates would further reduce the time until the system could be lost.

As an example, with a leak rate of approximately 17 gpm and no makeup, the system could be lost in about an hour and a half. BG&E has put contingency plans in place to provide a safety-related source of makeup water to the SRW system. They are currently evaluating the implications for the Component Cooling Water System, which is also a safety-related closed loop system without a safety-related source of makeup water.

Regional Action:

Routine resident followup at Calvert Cliffs is continuing. Region I is coordinating with NRR to research the design basis of the Calvert Cliffs Service Water System with respect to this issue.

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