

United States Nuclear Regulatory Commission  
Office of Public Affairs, Region I  
475 Allendale Road King of Prussia, PA 19406  
Fax: 610/337-5241  
Internet: dps@nrc.gov or nas@nrc.gov

I-98-103

September 3, 1998

Contact: Diane Screnci (610/337-5330)  
Neil A. Sheehan (610/337-5331)

FOR IMMEDIATE RELEASE

NRC PROPOSES \$55,000 CIVIL PENALTY AGAINST BGE COMPANY  
FOR RADIOLOGICAL CONTROLS VIOLATIONS AT CALVERT CLIFFS PLANT

A \$55,000 fine has been proposed by the Nuclear Regulatory Commission against the operator of the Calvert Cliffs nuclear power plant for violations of agency requirements involving radiological controls.

Three violations were identified during an NRC special radiological safety inspection conducted in April and May, and they were the subject of a predecisional enforcement conference held on June 18 between NRC staff and representatives of Baltimore Gas and Electric (BGE) Company. BGE owns and runs the two-reactor facility, located on the Chesapeake Bay in Lusby, Md.

The infractions are associated with two events on April 9 in which plant radiation safety personnel failed to follow radiological control procedures for the control and monitoring of workers performing tasks in high-radiation areas. The violations included a failure to ensure workers were wearing alarming radiation detectors when entering a high-radiation area; a failure to halt work when unexpected alarms and radiological conditions were encountered; and a failure to correctly calculate stay times for employees entering high-radiation areas, resulting in non-conservative estimates of the time available to do work there.

In the first instance early that day, six workers entered the Unit 1 reactor cavity, an area above the reactor vessel, to prepare to remove insulation and to ready nuclear instrumentation detectors for replacement. Four of those workers subsequently entered an area adjacent to the reactor vessel called the annulus, a high-radiation area exhibiting radiation levels ranging from 2,000 millirems per hour to 6,000 millirems per hour. (For comparative purposes, the average American is exposed to about 360 millirems of radiation in a year from both manmade and natural sources.)

However, the individuals were not wearing alarming dosimetry as required by their special work permit. Radiation safety personnel were required to physically verify that the workers were wearing required radiation monitoring equipment before they entered the high radiation area, but that did not occur.

Although the workers were not monitored properly, subsequent

reviews found that their exposures to radiation did not exceed regulatory limits.

Later that same morning, an instrumentation and controls technician entered the annulus for approximately 9 minutes to relatch a detector well. The technician was wearing multiple detectors on his body to properly monitor radiation levels. While this worker was wearing the required monitors, the alarms on the three of the five devices in use had been incorrectly set. Even after the three incorrectly set monitors alarmed, the individual was allowed to continue to work in the area.

Consequently, the technician received an unplanned exposure to radiation -- approximately 760 millirems to his left thigh, which was in excess of the special work permit dose limit of 600 millirems. But, as in the other instance, regulatory limits were not exceeded.

"The NRC is particularly concerned that these failures occurred despite the improvements that you had made to your radiological protection program following a serious event in April 1997, in which you failed to implement appropriate radiological controls during diving operations in the Unit 2 spent fuel pool," NRC Region I Administrator Hubert J. Miller wrote to BGE in a letter notifying the utility of the enforcement action. "A \$176,000 civil penalty was previously issued to you for the related violations (in April 1997) that were categorized at Severity Level II. A Severity Level III Notice of Violation without a civil penalty was also issued for your failure to establish adequate controls for airborne radioactivity for work in the reactor cavity in May 1997.

"During the April 9, 1998, entries to the annulus," Mr. Miller continued, "deficiencies similar to those identified during the 1997 events were identified, including ineffective job briefings, failure of radiation protection personnel to provide adequate monitoring of personnel exposure and lack of management oversight."

The administrator said the latest violations were of "significant concern," particularly in light of the fact that these events, which had the potential for unnecessary exposure of workers to radiation, could have been prevented if BGE had more effectively addressed past problems with the radiation protection program.

Since the most recent problems occurred, BGE has bolstered its efforts to improve radiological controls at Calvert Cliffs. The NRC, after observing improvements, on July 9 lifted a Confirmatory Action Letter issued to the utility in April outlining steps BGE had agreed to take toward that end.

The violations have been classified by the NRC in the aggregate as a Severity Level III problem. (There are four levels of severity for NRC violations, with Level I the most significant and Level IV the least significant.)

BGE has 30 days to pay the fine or request in writing that all or part of the penalty be withdrawn.

#