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FOR IMMEDIATE RELEASE

NRC STAFF PROPOSES \$176,000 FINE  
FOR ALLEGED VIOLATIONS AT CALVERT CLIFFS NUCLEAR PLANT

The Nuclear Regulatory Commission staff has proposed a \$176,000 fine against Baltimore Gas & Electric (BG&E) Co. for three alleged violations of agency requirements at the Calvert Cliffs nuclear power plant in Lusby, Md. The infractions stem from inadequate control of diving activities in the Unit 2 spent fuel pool earlier this year, creating a substantial potential for a diver's significant overexposure to radiation.

In addition, the NRC cited, but did not propose a fine, for 10 other alleged violations involving other inadequate radiological controls and inadequate control of refueling activities.

The event that precipitated the apparent violations related to diving activity occurred on April 3. During the fourth of five dives into the Unit 2 refueling cavity and spent fuel pool to inspect and repair malfunctioning fuel transfer equipment, a contractor diver left the previously surveyed and approved dive location at the south end of the roughly 40-foot-deep, stainless steel-lined pool. As a result, he entered areas exhibiting significantly higher radiation fields, where he received an unplanned radiation exposure and could have received a dose in excess of regulatory limits.

Following the fourth dive, a decision was made to begin the fifth dive, using another diver to complete the repair/inspection work. Although his radiation detection devices had not been processed to determine his previous exposure, the diver from the fourth dive was allowed to re-enter the spent fuel pool work area to support the other diver.

NRC staff, which held a predecisional enforcement conference with BG&E regarding the matter on June 12, determined the violations associated with the diving activities were as follows:

- Failure to ensure the diver would not be able to gain

unauthorized or inadvertent access to areas where radiation levels could be 500 rads or more in an hour. NRC radiation dose limits are 5 rems per year. (A rem is a measure of radiation exposure. The average American is exposed to 300 millirem of radiation from natural sources each year. The values of "rem" and "rad" are numerically equal. A "millirem" is one-thousandth of a rem.)

- Failure to provide adequate instructions to the diver as to the nature and location of very high radiation fields and the authorized work tasks.
- Failure to perform adequate surveys during and after the diver entered an area of spent fuel pool that had not been previously surveyed.

Preliminary calculations performed by BG&E staff indicated the diver's right knuckles may have entered radiation fields of 155 to 310 rem per hour and his right arm may have entered radiation fields ranging from 45 to 90 rem per hour. Dose calculations show the diver received 270 millirem to the whole body, and 885 millirem to the extremities. Regulatory dose limits are 5 rem and 50 rems respectively. Subsequent dose assessments indicated that no exposure in excess of NRC limits likely took place.

"Although subsequent detailed dose assessments for the diver indicated that no apparent radiation exposure in excess of NRC limits likely occurred, this was nonetheless a significant event given the serious consequences that could result from the diver being in close proximity to irradiated (spent) fuel," NRC Region I Administrator Hubert J. Miller wrote in a letter to BG&E. "Weaknesses in the establishment and implementation of the type of radiological controls necessary to assure safety in the vicinity of very high radiation areas resulted in a substantial potential for an exposure in excess of regulatory limits at the facility."

The NRC believes the event constituted a breakdown in controls that were to be provided for diving work, Mr. Miller continued. Significant deficiencies in communications, coordination, and management oversight and decision-making existed, he said.

The violations pertaining to the other inadequate radiological controls for which no fines were proposed include: a failure to prevent access to areas inside the Unit 2 containment building exhibiting radiation levels greater than 1,000 millirems at 30 centimeters; failure to post a caution sign and require radiation detection devices for workers entering high

radiation areas; and a reviewing supervisor's failure to forward to the plant's Issues Assessment Group reports written regarding a high radiation area access control concern and a safety concern associated with Unit 2 containment emergency airlocks.

The refueling activity violations include inadequate actions to preclude the numerous and repeated problems with refueling equipment that occurred during the defueling of Unit 2 in March; and the commencement of Unit 2 refueling activities on April 23 without properly aligning for operation the spent fuel pool area ventilation system charcoal filters.

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

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