



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 8, 1990

Docket Nos. 50-317
and 50-318

Mr. G. C. Creel
Vice President - Nuclear Energy
Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
MD Rts 2 & 4
Lusby, Maryland 20657

Dear Mr. Creel:

SUBJECT: ENVIRONMENTAL ASSESSMENT OF TECHNICAL EXEMPTION REQUEST RELATING TO 10 CFR PART 50, APPENDIX R, REQUIREMENTS FOR THE CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2, TAC NOS. 76127 (UNIT 1) AND 76128 (UNIT 2)

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant Impact" for your information. This assessment relates to your request dated June 29, 1990.

You requested an exemption from the requirements of 10 CFR Part 50, Appendix R, Section III.J, "Emergency Lighting." The specific request is for an exemption from the requirement to install fixed 8-hour emergency lighting in both Unit 1 and Unit 2 containments. In your Licensee Event Report (LER) 50-317/89-09, you reported several deficiencies in the existing post-fire alternative safe shutdown procedure (AOP-9). The revisions to AOP-9 to correct the identified deficiencies resulted in additional areas inside Unit 1 and Unit 2 containments requiring emergency lighting to allow operators to access necessary equipment post-fire per AOP-9, thus additional emergency lighting is required.

Your alternate proposal would provide portable handlights of the rechargeable type with an 8-hour rating. The portable handlights will be kept in a charging unit and available for exclusive use of the operations staff during

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Mr. G. C. Creel

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an emergency condition. The portable handlights will be staged at the entrance of the containments of each unit.

The environmental assessment has been forwarded to the Office of Federal Register for publication.

Sincerely,

original signed by

Daniel G. McDonald, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
Environmental Assessment
cc w/enclosure:
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Mr. G. C. Creel
Baltimore Gas & Electric Company

Calvert Cliffs Nuclear Power Plant

cc:

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UNITED STATES NUCLEAR REGULATORY COMMISSION
BALTIMORE GAS AND ELECTRIC COMPANY
DOCKET NOS. 50-317 AND 50-318
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from certain requirements of 10 CFR Part 50, Appendix R, Section III.J, "Emergency Lighting," to the Baltimore Gas and Electric Company (BG&E/licensee) for the Calvert Cliffs Nuclear Power Plant, Units 1 and 2, located at the licensee's site in Calvert County, Maryland.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The licensee would be exempted from the requirements of 10 CFR Part 50, Appendix R, Section III.J, to the extent that 8-hour portable handlights, kept in a charged state, would be available for exclusive use of the operations staff during a post-fire emergency in lieu of permanently installed 8-hour emergency lighting in specified areas within Unit 1 and Unit 2 containments.

The Need for the Proposed Action:

The proposed exemption is needed as the result of the licensee's investigation of the deficiencies identified in its Licensee Event Report (LER) 50-317/89-09. Several deficiencies were noted in the existing post-fire alternative safe shutdown procedure (AOP-9), resulting in additional areas being identified, inside the containments of both units, which require emergency lighting to allow operators to access necessary equipment for safely shutting

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down the units subsequent to a fire in accordance with the revised AOP-9. Specifically, it is necessary to operate auxiliary spray valves, loop charging isolation valves, safety injection tank isolation valves, and shutdown cooling return isolation valves. The actions occur at various times during post-fire shutdown activities with the first containment entry occurring approximately 4 hours after the initiation of the event. In order to comply with the Section III.J requirement, emergency lighting would need to be installed to illuminate both the valves and the access paths to them.

The licensee has proposed providing portable handlights for use in containment but which would be staged outside of the containments. Specifically, the portable handlights will be of the rechargeable type with an 8-hour duration. The portable handlights will be kept in recharging units, and subjected to a constant charge. Access to the portable handlights will be physically and administratively limited to operations personnel for emergency use. The portable handlights will be tested on the same frequency as the other emergency lights at the facility.

Environmental Impacts of the Proposed Action:

The proposed exemption will provide a degree of fire protection that is equivalent to that required by Appendix R for the affected areas of the plant such that there is no increase in the risk of fires at this facility. Consequently, the probability of fires has not been increased and the post-fire radiological releases will not be greater than previously determined, nor does the proposed exemption otherwise affect radiological plant effluents. Therefore, the Commission concludes that there are no significant radiological environmental impacts associated with this proposed exemption.

With regard to potential non-radiological impacts, the proposed exemption involves features located entirely within the restricted area as defined in 10 CFR Part 20. They do not affect non-radiological plant effluents and have no other environmental impact. Therefore, the Commission concludes that there are no significant non-radiological environmental impacts associated with the proposed exemption.

Alternatives to the Proposed Action:

Since the Commission has concluded there are no measurable environmental impacts associated with the proposed exemption, any alternatives with equal or greater environmental impact need not be evaluated. The principal alternative to the exemption would be to require rigid compliance with the applicable portions of Section III.J of the Appendix R requirements. Such action would not enhance the protection of the environment. Installation of fixed emergency lighting in the containment is not consistent with the goals of reducing radiation exposure, ALARA, in terms of installation, surveillance, and maintenance. The increased level of exposure and generated waste is not justified when a more reliable option clearly exists.

This action involves no use of resources not previously considered in the Final Environmental Statement for the Calvert Cliffs Nuclear Power Plant, Units 1 and 2, dated April, 1973.

FINDING OF NO SIGNIFICANT IMPACT

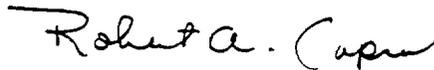
The Commission has determined not to prepare an environmental impact statement for the proposed exemption.

Based upon the foregoing environmental assessment, the staff concludes that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this proposed action, see the licensee's letter dated June 29, 1990. This letter is available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C., and at the Calvert County Library, Prince Frederick, Maryland.

Dated in Rockville, Maryland, this 8th day of August 1990.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation