

September 28, 1998

Mr. Charles H. Cruse, Vice President  
Nuclear Energy Division  
Baltimore Gas and Electric  
1650 Calvert Cliffs Parkway  
Lusby, MD 20657-4702

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE  
CALVERT CLIFFS NUCLEAR POWER PLANT (CCNPP) UNIT NOS. 1 & 2,  
ENVIRONMENTAL REPORT ASSOCIATED WITH LICENSE RENEWAL (TAC  
NOs. MA1524 and MA1525)

Dear Mr. Cruse:

By letter dated April 8, 1998, the Baltimore Gas and Electric Company (BGE) submitted its application for renewal of the CCNPP, Unit 1 and 2 licenses. As part of the application, BGE submitted an environmental report (ER) prepared in accordance with 10 CFR Part 51. The staff is continuing its review of the ER. Based on the review of the information against the requirements in 10 CFR 51.53(c), the staff has identified areas where additional information would support the staff's review. These are contained in the enclosure. The items in the enclosure have been given sequential numbers from the September 9, 1998, request for additional information regarding the Severe Accident Mitigation Alternatives review. This will facilitate tracking all the questions associated with the environmental review.

Please provide a schedule by letter or telephone for submittal of your response within 30 days of receipt of this letter. Additionally, the staff is willing to meet with BGE prior to submittal of the response to provide clarifications of the staff's request for additional information.

Sincerely,  
Original Signed By:  
Claudia M. Craig, Senior Project Manager  
Generic Issues and Environmental  
Projects Branch  
Division of Reactor Program Management  
Office of Nuclear Reactor Regulation

Enclosure: As stated

Docket Nos. 50-317, 50-318

cc: See attached list

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DOCUMENT NAME: g:/cmc1/envrai.wpd \*See previous concurrence

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NAME	CCraig	RArchitzel	TEssig	CGrimes*
DATE	9/23/98	9/28/98	9/26/98	9/24/98

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Baltimore Gas and Electric  
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Sincerely,

A handwritten signature in cursive script that reads "Claudia M. Craig".

Claudia M. Craig, Senior Project Manager  
Generic Issues and Environmental  
Projects Branch  
Division of Reactor Program Management  
Office of Nuclear Reactor Regulation

Enclosure: As stated

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DISTRIBUTION: Ltr to C. Cruse fm C. Craig Dated Sept. 28, 1998

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GMeyer

Request for Additional Information  
Calvert Cliffs Nuclear Power Plant (CCNPP) License Renewal Application  
Environmental Review

**Alternatives:**

17. Chapter 2 of the BGE Environmental Report (ER) focuses on coal and gas as the feasible generating alternatives. Imported power is briefly discussed on page 2-15 of the ER as a feasible alternative. However, BGE noted that imported power would be generated by one of the technologies discussed in Chapter 8 of the Generic Environmental Impact Statement (GEIS) and adopted by reference the GEIS Chapter 8 description of other technologies that would likely generate imported power. Provide any additional information that may supplement or update imported power information specifically for Calvert Cliffs with regard to what percentage of electrical sales would be purchased power and the likely sources of generation. This information may have been generated by other entities such as the State of Maryland or the Public Service Commission.
18. The ER lists BGE conservation program components, including peak clipping programs, load shifting programs, and conservation programs (page 2-18). If these programs have changed since the ER assessment was performed or plan to be changed, identify the changes and provide an update of the assessment of BGE's load management programs.
19. The BGE ER states that the demand-side management program produces an annual peak demand generation reduction of about 700 megawatts, and that it can continue to increase generation savings from demand-side management to about 1,000 megawatts in 2016 (Page 2-18). Provide a discussion (quantitative, if possible) to support this number and the conclusion that demand-side management is not a feasible alternative to CCNPP license renewal.
20. With respect to the option of delaying retirement for power plants in BGE's system (page 2-18), provide the current BGE generating unit retirement plans. Also, provide a discussion supporting the statement, "Without retiring any generating units, BGE will require additional capacity in 2000 or 2001. For this reason, BGE has determined that delayed retirement of other BGE generating units would not be a feasible alternative to CCNPP license renewal."

**Hydrology:**

21. Provide a simplified plant water flow schematic to assist in understanding the relationships between inflows, water processing, plant-related impacts to water, and the associated outfalls. This information will be summarized in Chapter 2 of the Supplemental Environmental Impact Statement (SEIS) as background text on Water Use and Water Quality Issues. The figure should include average flow rates on flow paths. 'Inflows' should include the multiple wells used for plant water (not the non-plant wells, such as at the firing range and Camp Canoy).

22. Provide the monthly average groundwater withdrawals for the past 5 years to allow an adequate understanding of the seasonal variability of groundwater usage. Alternatively, if annual average flows are available and provided instead of monthly flows, explain how use of these flows for drawdown calculations ensure that transient drawdowns at a sub-annual time scale would not result in a significantly greater predicted impact.

**Ecology:**

23. Provide the current 316(a)/316(b) permit documentation. During the site tour, BGE staff stated a comprehensive report that summarizes all impingement studies related to the plant was being developed and could be provided to the NRC. Please provide a copy of this report for background purposes or a schedule when it will be available.
24. During the site visit, CCNPP staff identified several biocides that have been or will be used. Provide a current listing and description of biocides that are planned or are likely to be used during the renewal period.
25. Under the Endangered Species Act compliance requirement, BGE had initiated informal consultations with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS), and a written reply from NMFS was included in the ER. Provide a copy of the response after it is received from the USFWS or a schedule when it will be available, if possible.
26. Depth measurements of the intake channel taken by the State of Maryland during the site visit indicated an increased in the level of siltation since the channel was constructed. Clarify BGE's intentions with respect to dredging the channel either as part of refurbishment activities or a renewed license. The information should include timing, permits, monitoring requirements, disposal of the dredged material, etc., if available.
27. The power line rights-of-way cross at least one sensitive habitat. Provide a map of the power line showing the locations of the following types of sensitive habitats (if releasable):
- (a) Wildlife sanctuaries, refuges, or preserves,
  - (b) Habitats identified by State or Federal agencies as unique, rare, or of priority for protection,
  - (c) Wetlands, floodplains, or other resources specifically protected by Federal regulations, Executive Orders, or by State regulations,
  - (d) Land areas identified as "critical habitat" for species listed as threatened or endangered by the U.S. Fish and Wildlife Service.

**Socioeconomics:**

28. Page 2-6 of the ER provided CCNPP workforce numbers. During the site visit, updated numbers were identified. To more fully review traffic and water issues in the southern part of Calvert County and the eastern part of St. Mary's County, provide a current residence count of CCNPP employees by county, including counties outside the Tri-County area, if available.

**Rad-Waste Management:**

29. Provide a brief description of any changes that will be made to the radioactive-waste-management and effluent-control systems (gaseous, liquid, and solid waste) for license renewal. Discuss any changes in the sources of rad-waste, their treatment, and storage.
30. Provide a brief description of the transportation of radioactive materials offsite. Discuss the types of radioactive material shipped, the typical number of shipments per year, and any expected increases in shipment during the renewal period. This information will be summarized in the SEIS as background and descriptive text.

**Clarify Statements:**

31. Clarify the following items:
- (a) Under the topic "Groundwater Use," on page 2-3, the quantities of the permitted withdrawal rate as stated within first and last paragraphs are inconsistent. Correct this discrepancy to indicate the current state permit withdrawal rate.
- (b) In Appendix H, page H-7, there is a reference to Table 1 that is not attached. Does this refer to Table 1-1 on page 1-1? If not, supply the appropriate table.

**References Requested:**

32. To facilitate the staff's review, please supply the following references cited in the ER and any updates. Copies of only the cover page and the pages referenced will suffice unless otherwise noted.
- The Calvert Cliffs Nuclear Power Facility Transportation Study (Rummel, Klepper, and Kahl, July 6, 1992) (whole report if small, or relevant pages).
  - Ground Water Supply Investigation for the Calvert Cliffs Nuclear Power Plant near Prince Frederick, Maryland, BGE, January 1969 (whole report if small, or relevant pages).
  - Relevant pages referred to in Reference 120, "Statistical Abstract of the United States, 1994." Economics and Statistics Administration, U.S. Department of Commerce, 1994.

- Relevant pages in Reference 129, "Maryland -The Old Line State," contributed by R.D. Mitchell and E.C. Papenfuse, World Book Encyclopedia, World Book, Inc., 1994.
- Demographic Information for Solomons, Maryland and the Surrounding Area, Calvert County Department of Economic Development, March 26, 1994 (whole report if small, or relevant pages).
- Relevant pages in Reference 131, Fetter, C.W. "Applied Hydrology," Second edition, Macmillan Publishing Company, 1988.
- Relevant pages of Reference 10, "Environmental Assessment for Cope Power Plant," South Carolina Electric and Gas Company, 1991.
- Relevant pages from Reference 14, "Semi-Annual Surface Water Withdrawal Reports," 1987-1994, plus updates for the years since 1994, submitted by BGE to Maryland Department of Natural Resources, Water Resources Administration.
- Relevant pages of References 17 and 18, EPA 904/9-94-002(a), "Final Environmental Impact Statement, Volume I: Tampa Electric Company - Polk Power Station," EPA, June 1994 and "The Beaver Combined Cycle Combustion Turbine Generating Plant," Portland General Electric [undated brochure].
- Relevant pages of Reference 19, "Perryman Power Plant Certification of Public Convenience and Necessity, Environmental Review Document," Volume 2, Baltimore Gas and Electric Company, 1989.

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