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August 27, 1984

ARTHUR E. LUNDVALL, JR.  
VICE PRESIDENT  
SUPPLY

Director of Nuclear Reactor Regulation  
Attention: Mr. J. R. Miller, Chief  
Operating Reactors Branch #3  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Calvert Cliffs Nuclear Power Plant  
Unit No. 2; Docket No. 50-318  
Request for Modification of June 14, 1984 Order

Gentlemen:

The Baltimore Gas and Electric Company hereby requests relief from the schedular requirements imposed by the Nuclear Regulatory Commission Order dated June 14, 1984, amounting to a period of one year, with regard to providing an operational safety parameter display system (SPDS) at Unit 2.

### BACKGROUND

A schedule for completion of the emergency response capability requirements of Supplement 1 to NUREG-0737 (NRC Generic Letter 82-33) was established for Calvert Cliffs Units 1 and 2 by the subject confirmatory order. This schedule was based on commitments contained in our letters dated April 15, July 22, and November 18, 1983. The dates established for satisfying the requirement for an SPDS were October 1, 1986, for Unit 2 and October 1, 1987, for Unit 1, based on the assumption that installation would occur during the Fall 1985 refueling outage for Unit 2 and the Fall 1986 refueling outage for Unit 1. A one year period was included in the schedule for each unit to allow for system testing and validation, and operator familiarization. As discussed in our April 15 letter, the proposed schedule for Unit 2 was optimistic, considering the extent of plant information system upgrades scheduled to occur concurrently with or just prior to SPDS installation. Recognizing the possibility of encountering problems with the Unit 2 schedule, we stated that a deferral of installation to the subsequent refueling outage might be needed. That possibility was discussed again more recently in our SPDS safety analysis submittal dated June 6, 1984.

It now appears to us that it may be impractical to complete the installation of the Unit 2 SPDS during the Fall 1985 refueling outage. This conclusion is based on an increasingly high potential for delays in the supplier's scheduled delivery date and the complexity of the installation program when viewed in light of the relatively short duration of the Fall 1985 outage.

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To appreciate the scope of activities associated with our SPDS implementation plan, it is important to recall that prior to the issuance of Supplement I to NUREG-0737, we started conceptual engineering for a new plant computer system that will entirely replace the Westinghouse P-250 process computers now serving each unit. The decision to replace the plant computers was based on the fact that their output functions were tasked at full capacity, this resulting primarily from the continual escalation in operator information requirements experienced since the units were licensed for operation in 1974 and 1976. Further control room enhancements, such as those then envisioned from the SPDS concept, were impossible with the existing signal collection, data processing, and display capabilities.

Following your issuance of Supplement I to NUREG-0737, requiring the installation of an SPDS, we expanded the scope of our plant computer replacement program to include provisions to support an SPDS. As a result, our SPDS will be implemented as an integral part of the replacement computer system but utilized by plant operators at separate, strategically placed consoles. Our primary contractor retained a consultant to assist with the development of the SPDS portion of the plant computer software. The SPDS software will be highly customized to Calvert Cliffs in that the plant technical and operations staffs provided significant input during both the conceptual and detailed design stages. Seeking this valuable input, although requiring additional time, is important for ensuring the development of a system that will provide the most meaningful assistance to the plant staff. This involvement accomplished the additional objective of integrating the design of the SPDS displays with the philosophy of functionally based emergency operating procedures, concurrently under development by the operations staff.

As you are aware, we have a separate major project well underway that will greatly increase the number of available input signals to the new plant computers. The Data Acquisition System (DAS) will serve to collect, condition, and disseminate signals from throughout the plant. At this time, the DAS will serve only the replacement computer and will consequently not provide Class 1E signals for safety-related control board display purposes, as reported in our letter dated April 15, 1983.

The DAS, which was designed and fabricated by a separate contractor, is currently in the factory acceptance testing phase and is still scheduled for installation at Unit 2 during the Fall 1985 refueling outage.

Given the relationship of the DAS to the replacement computer, it is obvious that DAS installation and onsite testing must be completed prior to attempting a hookup with the replacement computer. Similarly, final acceptance testing of the replacement computer, including verification of its ability to smoothly interface with the DAS, cannot begin until after hookup is complete. Although great care will be taken to anticipate and avoid problems during this evolution, it is still realistic to expect some delays, especially since this is a complex evolution involving the simultaneous installation and check-out of two separate, complex, and interdependent computer systems.

As presently scheduled, the Fall 1985 outage for Unit 2 is approximately eight weeks in duration. We believe that an attempt to complete this project in that time frame will place the outage schedule at great risk, with the considerable likelihood of a substantial delay in the return to commercial operation. An additional consideration is the possibility of delays in plant computer delivery. We are monitoring the progress of our contractor and estimate that engineering is now two months behind the schedule that was established when we made our commitments regarding SPDS installation. Since there was little margin to accommodate delays in the schedule for Unit 2, it is not

unreasonable to expect that the computer may not be available prior to commencing the Fall 1985 refueling outage.

We propose a deferral of the Unit 2 plant computer replacement until the Spring 1987 refueling outage. This would accommodate an orderly completion of engineering and factory acceptance testing and, since the Spring 1987 outage is scheduled to be 14 weeks in duration, it would also accommodate any reasonable delays encountered during field acceptance testing. Based on a Spring 1987 installation, we propose a revised Unit 2 SPDS operational date of October 1, 1987, to coincide with the date at which the Unit 1 SPDS, to be installed in the fall of 1986, is scheduled to be declared operational. We have determined that a full one-year period for validation and operator familiarization will not be needed for Unit 2 because the two units' systems are identical and the experience gained from having installed the Unit 1 computer in the fall of 1986 will be applicable to Unit 2.

An advantage associated with declaring both systems operable at the same time is that formal operator training for both units can be performed concurrently. This consideration is particularly important since Units 1 and 2 share a common control room.

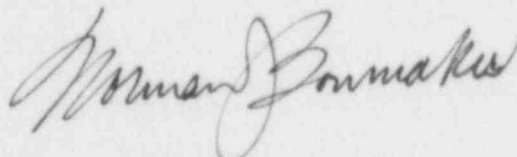
### JUSTIFICATION

We conclude that an October 1, 1987 implementation date for the Unit 2 SPDS, constituting a one-year extension to the deadline set by the June 14, 1984, NRC Order, is justified in that:

- (1) A need has been sufficiently demonstrated;
- (2) The extension will not involve an overall delay in SPDS implementation at Calvert Cliffs;
- (3) The extension will enhance the efficient implementation of emergency response capability upgrades in terms of the SPDS and the new EOPs; and
- (4) The Baltimore Gas and Electric Company is showing initiative in improving operator information systems significantly beyond the minimum acceptance criteria established by the Commission.

If you should have any questions concerning this request, please do not hesitate to contact us.

Very truly yours,



Norman J. Bowmaker  
for A. E. Lundvall, Jr.  
Vice President-Supply

AEL/BSM/vf

cc: D. A. Brune, Esq.  
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