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June 8, 1994

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
License Amendment Request; Extension of Alternate Offsite Power Circuit
Manual Transfer Surveillances from 18 to 24 Months

REFERENCE: (a) NRC Generic Letter 91-04, Changes in Technical Specification
Surveillance Intervals to Accommodate a 24-Month Fuel Cycle, dated
April 2, 1991

Pursuant to 10 CFR 50.90, the Baltimore Gas and Electric Company hereby requests an Amendment to Operating Licenses Nos. DPR-53 and DPR-69 by the incorporation of the changes described below to the Technical Specifications for Calvert Cliffs Unit Nos. 1 and 2.

DESCRIPTION

The proposed amendment would revise the Calvert Cliffs Nuclear Power Plant Units 1 and 2 Technical Specification 4.8.1.1.1.b to extend the alternate offsite power circuit surveillance frequency from 18 to 24 months. Calvert Cliffs has been operating on a 24-month fuel cycle since July 1987 (Unit 2), and July 1988 (Unit 1), performing some Technical Specification surveillances, such as the one described here, during mid-cycle outages. This request is one of a series of proposed license amendments that would eliminate the need for mid-cycle surveillance outages by extending 18-month frequency surveillances to refueling interval (nominally 24 months).

BACKGROUND

Normal offsite power is supplied to Calvert Cliffs through three 500 kV transmission lines. There is also a supplemental 69 kV offsite power source which provides 13 kV power via a 69/13 kV substation. The purpose of the 69 kV Southern Maryland Electric Cooperative (SMECO) power source is to act as an independent energy source for safe shutdown of the plant and to provide the ability to maintain a safe shutdown condition if no 500 kV line is available. If all three 500 kV power sources are lost, the 69 kV line can be transferred to any two 4 kV Engineered Safety Features Actuation System (ESFAS) busses, one for each unit. Additionally, if there was a complete loss of offsite power, three safety-related Emergency Diesel Generators (EDGs) could provide power for all analyzed accidents.

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The 69 kV power source consists of a single buried cable from an onsite SMECO substation to 13 kV service Bus No. 23 via a manual breaker. When the 69 kV line is used as one of the independent offsite circuits, 13 kV service Bus No. 23 and either 13 kV service Bus Nos. 11 or 21 will be energized. The 69 kV system has a capacity of 5000 kW, and electrical indication is provided in the Control Room for bus voltage, current and power usage.

The 18-month interval surveillance demonstrates operability of the 69 kV line by shutting a manual breaker between the 69 kV line and 13 kV Bus No. 23 and shutting remotely operated breakers between the 13 kV and 4 kV busses to manually transfer unit power supply from the normal circuit to the alternate circuit.

REQUESTED CHANGE

Revise Technical Specification 4.8.1.1.b as shown on the marked-up pages attached to this transmittal, increasing the surveillance interval from 18 months to refueling interval (nominally 24 months).

SAFETY ANALYSIS

The purpose of the 69 kV SMECO power source is to act as an independent energy source for safe shutdown of the plant and to provide the ability to maintain a safe shutdown condition if no 500 kV line is available. Upon loss of all three 500 kV power sources, the 69 kV line can be transferred to any two 4 kV ESFAS busses, one for each unit. The 69 kV line is also routinely used during scheduled outages, and the remotely operated breakers are used during normal plant operations.

Reference (a) states that for cases where 18 month surveillances do not involve calibration of instruments that perform safety functions, licensees should evaluate the effect on safety of the change in surveillance intervals which supports a conclusion that the effect on safety is small. Licensees should confirm that historical maintenance and surveillance data do not invalidate this conclusion. Since 1983, the 18-month interval surveillance which manually transfers offsite power supply from the normal 500 kV to the alternate 69 kV circuit has been performed 10 times. One surveillance identified an equipment problem associated with the manual breaker closure mechanism, which was corrected.

As stated above, the manual and remotely-operated breaker are routinely exercised. Based on the surveillance history provided and the routine use of the tested equipment, we conclude that the requested surveillance extension will not affect our ability to detect degradation in the 69 kV SMECO system, and does not invalidate any assumptions in the plant licensing basis.

DETERMINATION OF SIGNIFICANT HAZARDS

The proposed change has been evaluated against the standards in 10 CFR 50.92 and has been determined to not involve a significant hazards consideration, in that operation of the facility in accordance with the proposed amendments:

1. *Would not involve a significant increase in the probability or consequences of an accident previously evaluated.*

The purpose of the 69 kV Southern Maryland Electric Cooperative (SMECO) power source is to act as an independent energy source for achieving and maintaining safe shutdown of the plant if the 500 kV system is not available. Failure of the 69 kV SMECO system is not an initiator for any existing accident. Therefore, the proposed change does not involve an increase in the probability of an accident.

The 69 kV SMECO system could be used to mitigate the consequences of accidents involving a loss of primary offsite power. However, the accident analyses assume that if the 500 kV circuits were not available, the Emergency Diesel Generators would be used to provide power to maintain the plant in a safe shutdown condition. A historical review of surveillance test results indicates the system has experienced only one significant failure in the last ten years. In addition, the system is routinely used.

However, the SMECO system is not assumed to function in our accident analysis, so this change will result in no significant increase in the consequences of accidents previously evaluated. Therefore, the proposed Technical Specification change does not increase the probability or consequences of an accident previously evaluated.

2. *Would not create the possibility of a new or different type of accident from any accident previously evaluated?*

This requested increase in the interval for a 69 kV SMECO surveillance from 18 to 24 months does not involve a significant change in the design or operation of the plant. No hardware is being added to the plant as part of the proposed change. The proposed change will not introduce any new accident initiators. Therefore, the proposed change would not create the possibility of a new or different type of accident from any accident previously evaluated.

3. *Does operation of the facility in accordance with the proposed amendment involve a significant reduction in a margin of safety?*

The 69 kV SMECO system provides a margin of safety by providing an alternate offsite electrical power source. The proposed change does not affect the operation or design of the 69 kV SMECO system. Historical surveillance data and routine use indicates that the reduction in surveillance frequency will not adversely affect our ability to detect degradation in the system. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

SCHEDULE

This change is requested to be approved and issued by December 1, 1994. However, issuance of this amendment is not currently identified as having an impact on outage completion or continued plant operation.

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Document Control Desk

June 8, 1994

Page 5

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ATTACHMENT (1)

UNIT 1
TECHNICAL SPECIFICATION
MARKED-UP PAGE

3/4 8-4