



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 209 TO FACILITY OPERATING LICENSE NO. DPR-53
BALTIMORE GAS AND ELECTRIC COMPANY
CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-317

1.0 INTRODUCTION

By letter dated October 20, 1995, the Baltimore Gas and Electric Company (the licensee) submitted a request for changes to the Calvert Cliffs Nuclear Power Plant, Unit No. 1 (CC-1) Technical Specifications (TSs). The proposed one-time amendment would revise the CC-1 TSs by extending certain 18-month instrument surveillance intervals by a maximum of 39 days to March 31, 1996, for Cycle 12.

The instruments which will be affected by the proposed amendment are included in the reactor protective system (RPS), engineered safety features actuation system (ESFAS), power-operated relief valve (PORV) actuation, low temperature overpressure protection (LTOP), remote shutdown panel, post-accident monitoring (PAM), containment sump level and radiation monitoring. The surveillance activities which will be affected are instrument channel calibrations, RPS and ESFAS total bypass function operability verification, RPS and ESFAS time response tests, ESFAS manual trip button channel functional tests and ESFAS automatic actuation logic channel functional tests.

The Commission issued Amendment No. 208 to Facility Operating License No. DPR-53 and Amendment No. 186 to Facility Operating License No. DPR-69 for the CC-1/2, respectively. The amendments permanently extended the surveillance intervals for the instruments described above from 18-months to 24-months after a specified number of the instruments had been replaced. The amendments were effective immediately and to be implemented on CC-2 within 30 days, but not implemented on CC-1 until its restart after the spring 1996 refueling outage. All of the instruments identified for replacement on CC-2 have been replaced, but those identified for replacement on CC-1 have not been replaced, thus, the reason for the later implementation date. The proposed one-time amendment is needed prior to Amendment No. 208 being implemented because of a change in the refueling schedule.

CC-1 was initially scheduled to begin its refueling outage on February 16, 1996, which would have been within the time frame necessary to perform the required 18-month instrument surveillances currently required for the instruments identified above. The licensee has recently rescheduled the refueling outage for CC-1 to start March 15, 1996. This decision was made after consultation with the Pennsylvania-New Jersey-Maryland power pool

relating to projected power needs which was several months after the initial request for the permanent extension which was granted by Amendment Nos. 208 and 186 as discussed above. The revised refueling schedule will allow the maximum use of the available fuel in the CC-1 reactor core and will also allow the unit to operate for an additional time period of about 1 month during a period of potentially high power demand. Performing the required instrument surveillances at power would present an unwarranted personnel safety risk and, in some cases, the surveillances cannot be done during power operation because they would cause a unit trip.

CC-1 has been operating on a 24-month fuel cycle since July 1988 and has been performing the 18-month surveillance activities, described above, during mid-cycle outages. Extending the surveillance interval from 18 months to 24 months, which was granted by Amendment No. 208, will eliminate the need for scheduling mid-cycle outages. This one-time request for the proposed changes is based on guidance provided by the NRC staff in Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-month Fuel Cycle," dated April 2, 1991.

Specifically, the proposed amendment will revise CC-1 TS 4.3.1.1.2, TS 4.3.1.1.3, TS Tables 4.3-1, 4.3.2.1.2, 4.3.2.1.3, 4.3-2, 4.3-3, 4.3-6, 4.3-10, 4.4.3.1.b, 4.4.6.1.b, and 4.4.9.3.1.b by extending the 18-month surveillance intervals on a one-time basis by a maximum of 39 days to March 31, 1996, at which time CC-1 will enter its spring 1996 refueling outage. This proposed one-time amendment will be superseded by Amendment No. 208 which will be implemented prior to the restart of CC-1 from its spring 1996 refueling outage.

2.0 EVALUATION

GL 91-04 provides guidance on how licensees should evaluate effects of 24-month extension on safety of the plant and perform an evaluation to support a conclusion that the effect of such an extension on safety is insignificant. The licensee has performed a detailed engineering review of all instrument loops affected to establish the basis for a 30 month (24 months + 25%) calibration frequency. Using Calvert Cliffs procedures, the analyses were performed to verify that the surveillance interval extensions have a small effect on plant safety and would not invalidate any assumption in the plant licensing basis. The analysis was based on the guidance provided in the following documents: GL 91-04, EPRI document TR-103335, March 1994, "Guidelines for Instrument Calibration Extension/Reduction Programs," ISA-DRP67.04, Part II, Draft Recommended Practice, "Methodologies for the Determination of Setpoints for Nuclear Safety-Related Instrumentation," Draft 10, and ISA-S-67.04-1987, "Standard for Nuclear Safety-Related Instrumentation."

In its submittal dated June 6, 1995, in support of Amendment Nos. 208 and 186 which were issued on October 19, 1995, the licensee provided a summary of the results of analyses for each of the affected instrument loops. The evaluation results indicated that the proposed extension did not require any setpoint

changes and that the plant parameter indications are still acceptable, taking into consideration the effects of drift over a 30-month period, for safe plant operation and having the necessary information to effect a safe shutdown of an operating unit.

In GL 91-04, the NRC staff discussed seven issues pertaining to increasing the interval for instrument surveillances and identified specific actions that licensees should take to address each of these issues. The NRC staff evaluated the licensee's submittal to verify that it adequately addressed all of the issues identified in the GL necessary to provide an acceptable basis for increasing the calibration interval for instruments that are used to perform safety-related functions.

The NRC staff reviewed the information provided by the licensees and determined that it supported the requested extension in the surveillance interval and issued Amendment Nos. 208 and 186 as previously noted.

The licensee's October 20, 1995, submittal which requests a one-time extension of the instrument surveillance intervals by a maximum of 39 days provided the same basis for the one-time extension for all the specified instruments except those that are scheduled for replacement during the upcoming spring 1996 refueling outage.

The NRC staff has previously determined that the licensee has adequately addressed all of the applicable provisions identified in GL 91-04 for all of the instrument loops whose instruments are not scheduled for replacement. Therefore, the NRC staff has concluded that the requested one-time extension of a maximum of 39 days is also acceptable for the following: TSs 4.3.2.1.2, 4.4.3.1.b, 4.4.9.3.1.b; TS Table 4.3-1, Items 2b, 3, 4, 5, 7, 9a, and 9b; TS Table 4.3-2, Items 1c, 4b, 7a, 7b, and 9b; TS Table 4.3-6, Item 3; and TS Table 4.3-10, Items 3 and 9.

The instrument scheduled for replacement during the upcoming CC-1 spring 1996 refueling outage provide inputs for steam generator (SG) pressure, SG level, remote shutdown panel, pressurizer pressure, pressurizer level, and containment water level (wide range). The licensee indicates that the operating characteristics and history are well known for these instruments. The routine monitoring program at CC-1 consists of channel calibrations, channel checks, and/or channel functional checks to provide reliable indication of instrument operation. The licensee further indicates that the routine monitoring program has identified improperly operating instruments. Corrective actions are initiated when instrument parameter(s) are found to be out of the specified acceptance criteria.

The licensee indicated that its existing monitoring program has in the past and, for the requested short one-time extension, will identify improper operation and that appropriate action will be initiated to address problems associated with drift that could potentially cause plant parameters to exceed accident analyses assumptions.

Although these instruments have performed in an acceptable manner, the licensee is replacing them with improved designs to assure even more reliable operation for the increased surveillance interval to support 24-month refueling outages.

The NRC staff has determined that there is reasonable assurance that the licensee's monitoring and corrective action programs, as discussed above, are adequate to detect and correct any instrument loop problem. This determination is based on the acceptable performance of these instruments in the past and the requested short one-time extension interval of a maximum of 39 days. Therefore, the NRC staff has concluded that the requested one-time extension of a maximum of 39 days is also acceptable for the following: TSs 4.3.1.1.2 and 4.3.2.1.2; TS Table 4.3-1, Item 6, 7, and 9b; TS Table 4.3-2, Items 4b and 9b; TS Table 4.3-6, Items 4, 5, 6, and 7; TS Table 4.3-10, Items 4, 5, 6, 7, 9, and 13.

3.0 SUMMARY

Based upon the above review, the NRC staff finds that the proposed one-time surveillance extension for a maximum of 39 days up to March 31, 1996, is acceptable. TS 4.3.1.1.2, TS 4.3.1.1.3, and TS Tables 4.3-1, 4.3.2.1.2, 4.3.2.1.3, 4.3-2, 4.3-3, 4.3-6, 4.3-10, 4.4.3.1.b, 4.4.6.1.b, and 4.4.9.3.1.b will be revised by adding footnotes indicating that the Cycle 12 surveillances are required by March 31, 1996, and that this requirement will be superseded when Amendment No. 208 is implemented prior to the restart of Unit No. 1 from the spring 1996 refueling outage.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (60 FR 58396). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: December 28, 1995