



**Constellation
Nuclear**

**Calvert Cliffs
Nuclear Power Plant**

*A Member of the
Constellation Energy Group*

October 27, 2000

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
Request for Relief from Certain ASME Code Requirements for Inservice
Inspection; Relief Request No. RR-RI-ISI-1

Pursuant to 10 CFR 50.55a(a)(3)(ii), Calvert Cliffs Nuclear Power Plant (CCNPP) hereby proposes alternatives to certain requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code). Specifically, CCNPP requests relief from the ASME Code Section XI requirements stated in Paragraphs IWB-2412 and IWC-2412, as delineated in Tables IWB-2412-1 and IWC-2412-1, regarding the minimum percentage of examinations completed during the first inspection period of our third ten-year inservice inspection (ISI) interval. Compliance with the requirements of Paragraphs IWB-2412 and IWC-2412, as delineated in Tables IWB-2412-1 and IWC-2412-1, would result in hardship without a compensatory quality or safety improvement.

The third ten-year ISI interval for CCNPP Units 1 and 2 commenced on July 1, 1999. Pursuant to 10 CFR 50.55a(g)(4)(ii), the applicable ASME Code Section XI for the third ten-year interval was the 1989 edition. In Reference (a), we submitted proposed alternatives to 10 CFR 50.55a(g)(4)(ii) requesting authorization to use the 1998 edition of the ASME Code Section XI for the third ten-year ISI interval. The submittal included a paragraph-by-paragraph analysis of the proposed Code with that of the 1989 Edition, since the proposed Code had not been endorsed by the Nuclear Regulatory Commission (NRC) in 10 CFR 50.55a.

Due to the timing of our submittal, NRC review was not completed prior to the start of the third ten-year ISI interval. Therefore, we submitted Reference (b) requesting that the third ten-year ISI interval begin allowing continued use of the 1983 edition through summer 1983 addenda of the Code until such time that the NRC staff had completed its review. In Reference (c), the NRC staff authorized continued use of the 1983 edition with the summer 1983 addenda of the ASME Code, as an interim Code until the end of the spring 2001 Unit 2 refueling outage. In Reference (d) the NRC staff authorized use of the 1998 Edition of the ASME Code Section XI for the third ten-year ISI interval. Calvert Cliffs intends to adopt the 1998 Edition of the Code in January 2001. Therefore, this relief request is applicable to both the 1983 edition through summer 1983 addenda, and the 1998 edition of the ASME Code Section XI.

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I. Components for which Relief is Requested

ASME Class 1 and Class 2 Welds, Examination Categories B-F, B-J, C-F-1 and C-F-2.

II. Code Requirements for which Relief is Requested:

ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition, summer 1983 addenda, Division 1, Percentage of Minimum Examinations Completed, for the third inspection interval, required per Paragraphs IWB-2412 and IWC-2412, as delineated in Tables IWB-2412-1 and IWC-2412-1.

ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, Division 1, Percentage of Minimum Examinations Completed, for the third inspection interval, required per Paragraphs IWB-2412 and IWC-2412, as delineated in Tables IWB-2412-1 and IWC-2412-1.

III. Utility Proposed Alternative:

Calvert Cliffs Nuclear Power Plant is currently developing a Class 1 and 2 risk-informed inservice inspection (RI-ISI) program for both Units 1 and 2. We are using the Electric Power Research Institute (EPRI) Topical Report TR-112657, Revision B-A, "Revised Risk-Informed Inservice Inspection Evaluation Procedure," which was previously approved by the NRC. The RI-ISI program at CCNPP will cover Class 1 and 2 piping including ASME Examination Category B-F, B-J, C-F-1 and C-F-2 items. We intend to submit our RI-ISI program in November 2000, and anticipate NRC approval by June 2001.

The NRC has issued Information Notice (INFON) 98-044, "Ten-Year Inservice Inspection (ISI) Program Update for Licensees that Intend to Implement Risk-Informed ISI of Piping." The INFON states, in part, "... the staff will consider authorizing a delay up to 2 years in implementation of the next ten-year ISI program for piping only to allow licensees to develop and obtain approval for their RI-ISI program at the next available opportunity using the staff-approved topical reports." The third interval of the ASME Section XI ISI program commenced on July 1, 1999 for Units 1 and 2. Hence, both Units 1 and 2 are currently in the first period (July 1, 1999 through October 31, 2002) of the third interval. Calvert Cliffs is on a two-year refueling cycle; therefore, due to the timing of the third ten-year interval, Unit 2 has one outage (spring 2001) in the first period, and Unit 1 has two outages (spring 2000 and spring 2002) in the first period. In anticipation of the new RI-ISI program implementation, we did not perform any examinations on the Unit 1 Class 1 and 2 piping welds during the 2000 refueling outage. Consequently, implementation of a delay up to two years to allow us time to develop and obtain approval of our RI-ISI program means that both Units 1 and 2 would not meet the minimum examinations completed percentage requirements of ASME Section XI Tables IWB-2412-1 and IWC-2412-1 for the first period.

The Calvert Cliffs' RI-ISI program is planned for submittal in November 2000, and we anticipate NRC approval by June 2001. It is our intent to complete 100% of the required RI-ISI program inspections for Class 1 and 2 piping during the remaining periods of the third interval. For Unit 2, this means the RI-ISI program examinations will be performed during the second and third periods. For Unit 1, if the RI-ISI program is approved by June 2001, the normal percentage requirements delineated in Tables IWB-2412-1 and IWC-2412-1 for the first period will be met. However, if the approval is after June 2001, we will perform 100% of the examinations in the second and third periods for Unit 1. Due to the uncertainty of the approval date for the RI-ISI program, we request that the approval of this relief request allows us the flexibility to perform all of the RI-ISI Class 1 and 2 piping examinations during the second and third periods for both Units 1 and 2. All other

ASME Section XI Code requirements, augmented examinations, erosion corrosion examinations, inspections required for flaws dispositioned by analysis, system pressure tests, and inspection of components other than piping, will be performed as required.

IV. Safety Committee Review

The proposed relief request has been reviewed by our Plant Operations and Safety Review Committee, and they concluded that compliance with the requirements specified in Paragraphs IWB-2412 and IWC-2412, as delineated in Tables IWB-2412-1 and IWC-2412-1, would result in hardship without a compensatory quality or safety improvement.

Performing the examinations required under the current ASME Section XI rules would result in unnecessary personnel radiation exposure without a compensating increase in the level of quality and safety. Implementation of RI-ISI programs, in accordance with the NRC-approved EPRI topical report, have been shown to maintain or reduce risk while substantially reducing worker radiation exposure. Risk-informed ISI programs focus inspections and inspection methods on locations potentially susceptible to degradation while considering the consequences of any resulting piping failure. This results in a more robust inspection program.

INFON 98-44 states “. . . the use of PRA technology in NRC regulatory activities should be increased to the extent supported by the state of the art in PRA methods and data in a manner that compliments the NRC’s deterministic approach . . . the staff will consider authorizing a delay of up to 2 years in the implementation of the next ten-year ISI program for piping only to allow licensees to develop and obtain approval of their RI-ISI program . . .” During the delay period, CCNPP will continue to perform augmented examinations, erosion corrosion examinations, inspections required for flaws dispositioned analysis, system pressure tests, and inspections of components other than piping to ensure an acceptable level of safety is maintained.

Therefore, pursuant to 10 CFR 50.55a(a)(3)(ii), CCNPP requests relief from the ASME Section XI Code minimum examinations completed percentage requirements specified in Paragraphs IWB-2412 and IWC-2412 as delineated in Tables IWB-2412-1 and IWC-2412-1 for the first inspection period of our third inspection interval. Calvert Cliffs intends to implement the RI-ISI program during the second and third periods such that 100% of the required RI-ISI examinations are completed by the end of the interval. To allow adequate time to finalize the ISI scope for the upcoming Unit 2 spring 2001 refueling outage, Calvert Cliffs requests that the NRC approve this relief request no later than January 19, 2001.

Should you have further questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,



CHC/ALS/dlm

cc: R. S. Fleishman, Esquire
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- REFERENCES:**
- (a) Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated January 29, 1999, Proposed Alternate American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI Edition for Unit Nos. 1 and 2 Third Ten-Year Inservice Inspection Intervals
 - (b) Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated June 16, 1999, Proposed Alternative ASME Code Edition for the Third Ten-Year Inservice Inspection Interval
 - (c) Letter from Ms. M. K. Gamberoni (NRC) to Mr. C. H. Cruse (BGE), dated June 28, 2000, Interim Use of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Section XI, 1993 Edition for the Third 10-Year Inspection Interval – Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 (TAC Nos. MA8723 and MA8724)
 - (d) Letter from Ms. M. K. Gamberoni (NRC) to Mr. C. H. Cruse (BGE), dated April 5, 2000, Safety Evaluation of Proposed Alternate American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Section XI, 1998 Edition for the Third 10-Year Inspection Interval – Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 (TAC Nos. MA4647 and MA4648)