

May 25, 1988

Docket Nos. 50-317
and 50-318

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Mr. J. A. Tiernan
Vice President-Nuclear Energy
Baltimore Gas and Electric Company
P.O. Box 1475
Baltimore, Maryland 21203

Dear Mr. Tiernan:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - PROPOSED SECOND 10-YEAR
INSERVICE INSPECTION PROGRAM (TACS 67094 and 67095)

We have determined that additional information is necessary to facilitate our review of your proposed inservice inspection (ISI) program plan as provided in your January 14, 1988 submittal. The request for additional information is enclosed.

Please respond within 60 days of the date of issuance of this letter. If you are unable to respond within this period please notify us of your intended schedule within 35 days of this letter's issuance.

This request for information affects fewer than 10 respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

Original signature

Scott Alexander McNeil, Project Manager
Project Directorate I-1
Division of Reactor Projects, I/II

Enclosure:
As stated

cc: see next page

PDI-1
CVogan
5/25/88

PDI-1 *Sam*
SMcNeil:djg
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ROC
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RCapra
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PDR

Mr. J. A. Tiernan
Baltimore Gas & Electric Company

Calvert Cliffs Nuclear Power Plant

cc:

Mr. John M. Gott, President
Calvert County Board of
Commissioners
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Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
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ATTN: Mr. W. R. Horlacher, III
Project Manager
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Windsor, Connecticut 06095-0500

Department of Natural Resources
Energy Administration, Power Plant
Siting Program
ATTN: Mr. T. Magette
Tawes State Office Building
Annapolis, Maryland 21204

REQUEST FOR ADDITIONAL INFORMATION
INSERVICE INSPECTION PROGRAM PLAN
SECOND TEN-YEAR INTERVAL
BALTIMORE GAS AND ELECTRIC COMPANY,
CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2
DOCKET NOS. 50-317 AND 50-318

1. Scope/Status of Review

Throughout the service life of a water-cooled nuclear power facility, 10 CFR 50.55a(g)(4) requires that components (including supports) which are classified as American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Class 1, 2, or 3 meet the requirements, except design and access provisions and preservice examination requirements, set forth in the ASME Code Section XI, to the extent practical within the limitations of design, geometry, and materials of construction of the components. 10 CFR 50.55a(g)(4) also requires that inservice examinations of components and system pressure tests conducted during successive 120-month inspection intervals shall comply with the requirements in the latest edition and addenda of the Code incorporated by reference in 10 CFR 50.55a(b) on the date 12 months prior to the start of the 120-month inspection interval, subject to the limitations and modifications listed therein. The components (including supports) may meet requirements set forth in subsequent editions and addenda of this Code which are incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein. Based on the start date of April 1, 1987 for the second 10-year interval, the Inservice Inspection (ISI) Program Plan has been prepared to meet the requirements of the 1983 Edition, Summer 1983 Addenda (83S83) of the ASME Code Section XI except that the extent of examination for Code Class 1 piping welds has been determined by the 1974 Edition through Summer 1975 Addenda (74S75) and the extent of examination for Code Class 2 piping welds has been determined by ASME Code Case N-408, "Alternative Rules for Examination of Class 2 Piping."

As required by 10 CFR 50.55a(g)(5), if the licensee determines that certain Code examination requirements are impractical and relief is requested, the licensee shall submit information to the Nuclear Regulatory Commission (NRC) to support the determination.

The staff has reviewed the available information in the Calvert Cliffs Nuclear Power Plant, Units 1 and 2, Second 10-Year Interval ISI Program Plan, submitted January 14, 1988, and the requests for relief from the ASME Code Section XI requirements which the licensee has determined to be impractical.

2. Additional Information/Clarification Required

Based on the above review, the staff has concluded that the following information and/or clarification is required in order to complete the review of the ISI Program Plan:

- A. Provide the staff with the Boundary Diagrams which define the ASME Code Class 1, 2, and 3 boundaries for the Units 1 and 2 in the ISI Program Plan.
- B. Provide isometric and/or component drawings showing the welds, components, and supports which Section XI of the ASME Code requires to be examined during the second 10-year interval.
- C. Provide the staff with an itemized listing of the welds/components subject to examination during the second 10-year interval. The requested listing, along with the isometric drawings, will permit the staff to determine if the extent of ISI examinations meets the applicable Code requirements.
- D. Provide a list of the ultrasonic calibration standards being used during the second 10-year interval at both Units 1 and 2. This list should include the calibration standard identifications, material specifications, and sizes.
- E. Provide a list of the nondestructive examination procedures that are being used during the second inspection interval, including identifications, titles, and general descriptions of the components to which each procedure is applicable.
- F. Augmented examinations have been established by the NRC when added assurance of structural reliability is deemed necessary. Examples of documents which require augmented examinations are:
 - (1) High Energy Fluid Systems, Protection Against Postulated Piping Failures In Fluid System Outside Containment, Branch Technical Position ASB 3-1; and
 - (2) Regulatory Guide 1.150, Ultrasonic Testing of Reactor Vessel Welds During Preservice and Inservice Examinations.

Address the degree of compliance with these and any other augmented examinations which may have been incorporated in the Calvert Cliffs Nuclear Power Plant, Units 1 and 2, Second 10-Year Interval Inservice Inspection Program Plan.

- G. Request for Relief No. 1: Relief is requested from performing the ASME Code-required surface examination of the reactor pressure vessel nozzle-to-pipe transition welds. The licensee has proposed performing 45-degree shear-wave ultrasonic examination of the outside surface using mechanized ultrasonic techniques from the inside of the pipe. The licensee reports that this method of examination has been qualified for the detection of unacceptable outside surface flaws through the use of a mock-up with induced cracks ranging from 1/2 the maximum to the maximum allowable Code flaw depth.

The proposal could be considered acceptable provided that the remote volumetric examination includes the entire weld volume and heat-affected zone instead of only the inner one-third of the weld as required by the Code. Provide a discussion of this condition.

- H. Request for Relief No. 4: Relief is requested from performing the Code-required hydrostatic pressure test of the Class 2 piping from the High Pressure Safety Injection (HPSI), Auxiliary HPSI, and Low Pressure Safety Injection MOVs to the Reactor Coolant System. It is proposed that, in lieu of the Code requirement, hydrostatic pressure testing be performed to the Class 1 hydrostatic pressure requirement for some of the piping. For the portions of piping that cannot be hydrostatically pressure tested, it is proposed that a leakage test be performed each refueling cycle in accordance with the Technical Specifications.

Discuss the impact of making temporary modifications to the systems which would permit pressurizing the Class 2 piping to the Code-required test pressure.

- I. With regard to examination of component supports, provide an estimate of the sample size versus the entire population, separated by Code class.