



Docket File

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

September 6, 1995

Mr. Robert E. Denton
Vice President - Nuclear Energy
Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

SUBJECT: GENERIC LETTER 95-03, "CIRCUMFERENTIAL CRACKING OF STEAM
GENERATOR TUBES," - CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT
NO. 1 (TAC NO. M92229) AND UNIT NO. 2 (TAC NO. M92230)

Dear Mr. Denton:

By letter dated June 27, 1995, Baltimore Gas and Electric Company (BGE) responded to the referenced Generic Letter (GL 95-03). GL 95-03 requested addresses to evaluate recent operating experience related to circumferential cracking, justify continued operation until the next scheduled steam generator (SG) tube inspections, and to develop plans for the next SG tube inspections.

The NRC staff has reviewed BGE's responses and has identified areas for which additional information and/or clarification is needed. The enclosure to this letter identifies the information needed for the NRC staff to complete its review. Please provide the requested information within 30 days of receipt of this letter.

This request is within the original reporting burden of 350 hours covered by the Office of Management and Budget clearance number 3150-0011, which expires July 31, 1997.

Sincerely,

Daniel G. McDonald, Jr., Senior Project Manager
Project Directorate I-1
Division Of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-317
and 50-318

Enclosure: Request for Additional
information

cc w/encl: See next page

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Mr. Robert E. Denton
Calvert Cliffs Nuclear Power Plant

Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 and 2

cc:

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REQUEST FOR ADDITIONAL INFORMATION BY
THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATING TO BALTIMORE GAS AND ELECTRIC COMPANY'S
RESPONSE TO GENERIC LETTER 95-03
CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2
TAC NOS. M92229 AND M92230

1. The following areas have been identified as being susceptible to circumferential cracking:
 - a. Expansion transition circumferential cracking
 - b. Small radius U-bend circumferential cracking
 - c. Dented location (including dented TSP) circumferential cracking
 - d. Sleeve joint circumferential cracking

In your response, area b was not specifically addressed although it was indicated that circumferential cracking has also been observed in the U-bend region of a retired Combustion Engineering steam generator. In addition, recirculating steam generators designed by another vendor have experienced circumferential cracking in the U-bend portion of tubes with small radius U-bends. Please submit the information requested in Generic Letter (GL) 95-03 per the guidance contained in the GL for this area (and any other area susceptible to circumferential cracking). The staff realizes that some of the above areas may not have been addressed since they may not be applicable to your plant; however, the staff requests that you clarify this (e.g., no sleeves are installed; therefore, the plant is not susceptible to sleeve joint circumferential cracking).

In your response, it was indicated that dented locations (specifically dented support plate locations) are susceptible to circumferential cracking and that some of these locations were examined during the prior inspection outage. Discuss the criteria used for determining which dents were examined. If a voltage threshold was used for determining the threshold for examining dents, provide the calibration procedure used (e.g., 4.0 volts on 4-20% through-wall ASME holes at 550/130 mix). In addition, clarify the past inspection scope and your future inspection plans for dented locations.

2. It was indicated that several tubes were removed for destructive analysis during the previous steam generator tube inspection outage at Unit 2 and that laboratory analysis and destructive examination to evaluate the performance of the in-field inspection were in progress with the results anticipated to be available late in the summer. In addition, it was indicated that a qualitative comparison of the Calvert Cliffs non-

Enclosure

destructive examination results with similar results from tubes that have been examined metallurgically or in-situ pressure tested indicated that the Calvert Cliff's defects were not of sufficient size to become structurally significant or exceed Regulatory Guide 1.121 criteria. If available, please summarize the destructive examination results indicating whether or not these results support your conclusions.

September 6, 1995

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Original signed by:

Daniel G. McDonald, Jr., Senior Project Manager
Project Directorate I-1
Division Of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-317
and 50-318

Enclosure: Request for Additional
information

cc w/encl: See next page

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