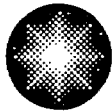


George Vanderheyden
Vice President
Calvert Cliffs Nuclear Power Plant
Constellation Generation Group, LLC

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Lusby, Maryland 20657
410.495.4455
410.495.3500 Fax



Constellation Energy

October 25, 2004

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
Response to NRC Generic Letter 2004-01, "Requirements for Steam Generator
Tube Inspections"

REFERENCE: (a) NRC Generic Letter 2004-01: Requirements for Steam Generator Tube
Inspections, dated August 30, 2004

The purpose of this letter is to forward Calvert Cliffs Nuclear Power Plant, Inc.'s response to the Nuclear Regulatory Commission (NRC) Generic Letter 2004-01 (Reference a). The Generic Letter was issued to:

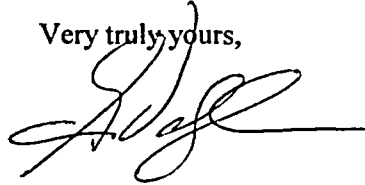
- 1) advise addressees that the NRC's interpretation of the Technical Specification (TS) requirements in conjunction with 10 CFR Part 50, Appendix B, raises questions as to whether certain licensee steam generator (SG) tube inspection practices ensure compliance with these requirements,
- 2) request that addressees submit a description of the tube inspections performed at their plants, including an assessment of whether these inspections ensure compliance with the TS requirements in conjunction with 10 CFR Part 50, Appendix B,
- 3) request that addressees who conclude they are not in compliance with the SG tube inspection requirements contained in their TS in conjunction with 10 CFR Part 50, Appendix B, propose plans for coming into compliance with these requirements, and
- 4) request that addressees submit a tube structural and leakage integrity safety assessment that addresses any differences between their practices and the NRC's position regarding the requirements of the TS in conjunction with 10 CFR Part 50, Appendix B.

The NRC requests that specific information be provided within 60 days of the date of the Generic Letter. Attachment (1) contains Calvert Cliffs Nuclear Power Plant's response to the requested information.

AHS

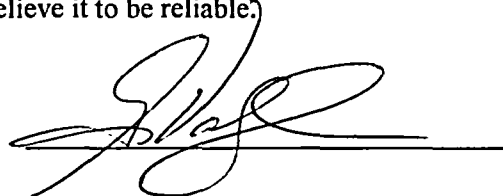
Should you have questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,



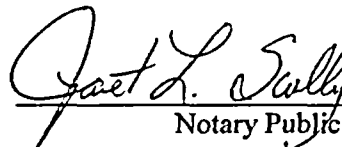
STATE OF MARYLAND :
 : TO WIT:
COUNTY OF CALVERT :

I, George Vanderheyden, being duly sworn, state that I am Vice President - Calvert Cliffs Nuclear Power Plant, Inc. (CCNPP), and that I am duly authorized to execute and file this response on behalf of CCNPP. To the best of my knowledge and belief, the statements contained in this document are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by other CCNPP employees and/or consultants. Such information has been reviewed in accordance with company practice and I believe it to be reliable.)



Subscribed and sworn before me, a Notary Public in and for the State of Maryland and County of St. Mary's, this 25th day of October, 2004.

WITNESS my Hand and Notarial Seal:


Notary Public

My Commission Expires:

March 25, 2007
Date

GV/GT/bjd

Attachment: (1) Response to NRC Generic Letter 2004-01

cc: J. Petro, Esquire
J. E. Silberg, Esquire
R. V. Guzman, NRC

S. J. Collins, NRC
Resident Inspector, NRC
R. I. McLean, DNR

ATTACHMENT (1)

RESPONSE TO NRC GENERIC LETTER 2004-01

ATTACHMENT (1)
RESPONSE TO NRC GENERIC LETTER 2004-01

The Nuclear Regulatory Commission (NRC) Generic Letter 2004-01 (Reference 1) requests addressees to provide the following information within 60 days of the date of the generic letter.

Requested Information (1)

Addressees should provide a description of the SG [steam generator] tube inspections performed at their plant during the last inspection. In addition, if they are not using SG tube inspection methods whose capabilities are consistent with the NRC's position, addressees should provide an assessment of how the tube inspections performed at their plant meet the inspection requirements of the TS [Technical Specification] in conjunction with Criteria IX and XI of 10 CFR Part 50, Appendix B, and corrective action taken in accordance with Appendix B, Criterion XVI. This assessment should also address whether the tube inspection practices are capable of detecting flaws of any type that may potentially be present along the length of the tube required to be inspected and that may exceed the applicable tube repair criteria.

CCNPP Response

Steam generator tube inspections performed at Calvert Cliffs are consistent with the NRC's position regarding tube inspections.

Calvert Cliffs Units 1 and 2 are both two loop pressurized water reactors and contain Babcock & Wilcox Replacement Steam Generators. Each steam generator contains 8471 thermally treated Inconel 690 U-tubes. The tubes have an outside diameter of 0.750-inches with a wall thickness of 0.042-inches. In addition, rows 1 through 18 had the U-bend area stress relieved after bending. The tubes are expanded over the full depth of the tubesheet, complete from the primary to the secondary face, and are flush seal welded at the primary face. The secondary side support structures include seven lattice grids and twelve fan bar U-bend restraints. All secondary side supports are constructed of 410S stainless steel.

Calvert Cliffs replaced the steam generators on Unit 1 in the spring of 2002 and on Unit 2 in the spring of 2003. The Unit 1 steam generators had operated for approximately 1.76 effective full power years, as of April 2004. The first inservice inspection on the Unit 1 steam generators was conducted in April 2004. The Unit 2 steam generators are currently operating in the first cycle following replacement and are scheduled for inspection in the spring of 2005.

Calvert Cliffs performed the first inservice tube inspections on the Unit 1 steam generators in April 2004 during the regularly scheduled refueling outage. For both steam generators, the following tube inspections were performed:

- 100% full-length bobbin coil inspection (all rows)
- Plus-point probe inspection of all bobbin coil non-quantifiable indications (i.e., "I" codes)

Calvert Cliffs uses tube inspection methods that are capable of detecting flaw types that may be present. Prior to each inspection, a degradation assessment, which includes operating experience, is performed to identify degradation mechanisms that may be present. A technique validation assessment is then performed to verify that the eddy current techniques are capable of detecting those flaw types identified in the degradation assessment. The relevant damage mechanisms in the degradation assessment were lattice grid wear, fan bar wear, foreign objects and any wear associated with the objects, and tube-to-tube contact. The technique assessment verified that qualified inspection techniques were used to inspect for the relevant damage mechanisms.

ATTACHMENT (1)
RESPONSE TO NRC GENERIC LETTER 2004-01

Requested Information (2)

If addressees conclude that full compliance with the TS in conjunction with Criteria IX, XI and XVI of 10 CFR Part 50, Appendix B, requires corrective action, they should discuss their proposed corrective actions (e.g., changing inspection practices consistent with the NRC's position or submitting a TS amendment request with the associated safety basis for limiting the inspections) to achieve full compliance. If addressees choose to change their TS, the staff has included in the Attachment suggested changes to the TS definitions for a tube inspection and for plugging limits to show what may be acceptable to the staff in cases where the tubes are expanded for the full depth of the tube sheet and where the extent of the inspection in the tube sheet region is limited.

CCNPP Response

Calvert Cliffs' steam generator tube inspections are in full compliance with Technical Specifications in conjunction with Criteria IX, XI, and XVI of 10 CFR Part 50, Appendix B. Therefore, this item is not applicable and no corrective actions are required.

Requested Information (3)

For plants where SG tube inspections have not been or are not being performed consistent with the NRC's position on the requirements in the TS in conjunction with Criteria IX, XI, and XVI of 10 CFR Part 50, Appendix B, the licensee should submit a safety assessment (i.e., a justification for continued operation based on maintaining tube structural and leakage integrity) that addresses any differences between the licensee's inspection practices and those called for by the NRC's position. Safety assessments should be submitted for all areas of the tube required to be inspected by the TS, where flaws have the potential to exist and inspection techniques capable of detecting these flaws are not being used, and should include the basis for not employing such inspection techniques. The assessment should include an evaluation of (1) whether the inspection practices rely on an acceptance standard (e.g., cracks located at least a minimum distance of x below the top of tube sheet, even if these cracks cause complete severance of the tube) which is different from the TS acceptance standards (i.e., the tube plugging limits or repair criteria), and (2) whether the safety assessment constitutes a change to the "method of evaluation" (as defined in 10 CFR 50.59) for establishing the structural and leakage integrity of the joint. If the safety assessment constitutes a change to the method of evaluation under 10 CFR 50.59, the licensee should determine whether a license amendment is necessary pursuant to that regulation.

CCNPP Response

Calvert Cliffs' steam generator tube inspections are being performed consistent with the NRC's position on the requirements in the Technical Specifications in conjunction with Criteria IX, XI, and XVI of 10 CFR Part 50, Appendix B. Therefore, this item is not applicable and no safety assessment is required.

REFERENCE

1. NRC Generic Letter 2004-01: Requirements for Steam Generator Tube Inspections, dated August 30, 2004