

Mr. Charles H. Cruse
Vice President - Nuclear Energy
Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

April 1, 1997

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT
REQUEST SLEEVING OPTION FOR STEAM GENERATOR TUBE REPAIR
(TAC NOS. M94205 AND M94206)

Dear Mr. Cruse:

By letter dated March 6, 1997, Baltimore Gas and Electric Company submitted a response regarding the Sleeving Option for steam generator tubes to allow the use of sleeves designed by ABB/CE. The NRC staff has reviewed your submittal and has determined that additional information is required. The information required is in the Enclosure.

To support your review schedule, it is requested that the required information be provided within 15 days of the receipt of this letter. Should you have any questions, please do not hesitate to contact me at (301) 415-3473.

Sincerely,

/s/

Alexander W. Dromerick, 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/encls: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Baltimore Gas and Electric Company
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A handwritten signature in cursive script, reading "Alexander W. Dromerick", is positioned above the typed name.

Alexander W. Dromerick, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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Mr. Charles H. Cruse
Baltimore Gas & Electric Company

Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 and 2

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REQUEST FOR ADDITIONAL INFORMATION
REGARDING CALVERT CLIFFS TECHNICAL SPECIFICATION
CHANGE TO ALLOW USE OF STEAM GENERATOR
TUBE SLEEVES DESIGNED BY ABB/CE

1. It appears that the sleeve plugging limit, discussed on page 8-9 of CEN 630-P should be 48.7% minus an allowance for NDE uncertainty and flaw growth instead of the presently stated TS wording of 40%. Please clarify what the correct value should be for ABB/CE sleeves and provide appropriate TS wording changes if needed.
2. The staff notes the generic topical provides for post weld heat treatment (PWHT) as an optional item. The staff position is that PWHT enhances service life of the repair by lowering residual stress. This should result in increased time to crack initiation and possibly lower crack growth rates. What is the licensee's intention with respect to PWHT and basis for acceptability if the PWHT is not performed? Please provide data as necessary to support your bases.
3. The staff believes that the inspection and expansion criteria in the EPRI steam generator tube examination guidelines should be satisfied, as a minimum, for all sleeved tubes. Please provide appropriate wording in the TS reflecting this criteria. For reference, a previously adopted table incorporated in the TS of another licensee is attached.

ENCLOSURE

TABLE 4.4-3
STEAM GENERATOR REPAIRED TUBE INSPECTION

1ST SAMPLE INSPECTION			2ND SAMPLE INSPECTION	
Sample Size	Result	Action Required	Result	Action Required
A minimum of 20% of repaired tubes (1) (2)	C-1	None	N.A.	N.A.
	C-2	Plug defective repaired tubes and inspect 100% of the repaired tubes in this S.G.	C-1	None
			C-2	Plug defective repaired tubes
			C-3	Perform action for C-3 result of first sample
	C-3	Inspect all repaired tubes in this S.G., plug defective tubes and inspect 20% of the repaired tubes in each other S.G. Notification to NRC pursuant to §50.72 (b)(2) of 10 CFR Part 50	All other S.G.s are C-1	None
			Some S.G.s are C-2 but no additional S.G.s are C-3	Perform action for C-2 result of first sample
			Additional S.G. is C-3	Inspect all repaired tubes in each S.G. and plug defective tubes. Notification to NRC pursuant to §50.72 (b)(2) of 10 CFR Part 50

(1) Each repair method is considered a separate population for determination of scope expansion.

(2) The inspection of repaired tubes may be performed on tubes from 1 to 4 steam generators based on outage plans.