

March 11, 1988

Docket No. 50-318

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

Dear Mr. Tiernan:

DISTRUBTION

Docket File	CVogan
NRC PDR	SMcNeil
Local PDR	LTripp
TMurley/Sniezek	MHartzman
FMiraglia	OGC-WF
CRossi	EJordan
SVarga	JPartlow
BBoger	ACRS(10)
TBarnhart(4)	GPA/PA
ARM/LFMB	

SUBJEC: RELIEF EXTENSION FOR MAIN STEAM PIPING FLAW AT CALVERT CLIFFS UNIT I
(TAC 66454)

Your letter of December 16, 1986 identified that a flaw exists in the base metal of the #12 steam generator main steam line adjacent to and downstream of weld # EB-01-1005-05. This weld is located at the second elbow downstream from the flow restrictor. The existing flaw consists of reduced wall thickness readings as low as 0.86" (minimum required wall thickness is 0.95") in a 1/2 wide strip extending 24" along the circumference of the pipe. As the pipe diameter is 34", the length of this flaw is approximately 22.5% of the pipe's circumference.

On March 26, 1987, in response to your letters of December 16, and 19, 1986, the Commission approved relief, for this flaw only, from the primary stress limit requirements of Article IWB-3610(b) Section XI of the 1983 Edition of the ASME code.

The relief was approved for only one operating cycle, being contingent upon the affected pipe's repair or replacement during the Spring 1988 Unit 1 refueling outage.

On September 30, 1987 you submitted analyses to justify the permanent non-repair or non-replacement of the flawed piping section. This justification was based upon finite element and fracture mechanics analyses provided to demonstrate that this flawed pipe section did, in fact, meet all primary stress limit requirements as provided in USAS B31.1 - 1967, "Power Piping," the original construction code.

Currently, the NRC staff is reviewing these analyses to determine if they adequately justify non-repair or non-replacement of the flawed pipe section. However, an indepth evaluation of the licensee's analyses can not be completed until further detailed information is provided. To require you to repair or replace this piping section, prior to completing our evaluation, would be onerous as this piping section may comply with all associated primary stress limits.

8803180140 880311
PDR ADOCK 05000318
P PDR

Thus, to permit completion of the NRC staff evaluation to determine whether to require piping repair or replacement, the Commission approves the extension of the relief, granted on March 26, 1987, for this flaw from the requirements of IWB-3610(b) until the next planned Unit 1 outage, of fourteen days or more, following the Spring 1988 Unit 1 refueling outage. The staff has determined that the requirements of the Code are impractical and that pursuant to 10 CFR 50.55a(g)(6)(i), the relief continues to be authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility. The basis for the approval of this relief is that 1) the affected pipe retains adequate fracture toughness, 2) a limit load analysis shows sufficient wall thickness remains to prevent yielding, 3) the affected pipe will be repaired or replaced at the next planned outage, of fourteen days or more, following the Spring 1988 Unit 1 refueling outage unless non-repair or non-replacement is approved by the NRC Staff, and 4) the affected pipe is an isolated case.

Our Safety Evaluation dated March 26, 1987 remains in effect.

Sincerely,

Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects, I/II

cc: See next page

*SEE PREVIOUS CONCURRENCE

PDI-1
*CVogan
3/3/88

PDI-1
*SMcNeil:d1g
3/4/88

EMEB
*Marsh
3/4/88

OGC
*Scinto
3/10/88

ROC
PDI-1
RCapra
3/11/88

Thus, to permit completion of the NRC staff evaluation prior to requiring piping repair or replacement, the Commission approves the extension of the relief, granted on March 26, 1987, for this flaw from the requirements of IWB-3610(b) until the next planned Unit 1 outage, of fourteen days or more, following the Spring 1988 Unit 1 refueling outage. The staff has determined that the requirements of the Code are impractical and that pursuant to 50.55a(g)(6)(i), the relief continues to be authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility. The basis for the approval of this relief is that 1) the affected pipe retains adequate fracture toughness, 2) a limit load analysis shows sufficient wall thickness remains to prevent yielding, 3) the affected pipe will be repaired or replaced at the next planned outage, of fourteen days or more, following the Spring 1988 Unit 1 refueling outage, and 4) the affected pipe is an isolated case.

Our Safety Evaluation dated March 26, 1987 remains in effect. ^{the} ~~Unless non-repair or non-replacement is approved by~~ NRC staff

Sincerely,

Robert A. Capra, Director
 Project Directorate I-1
 Division of Reactor Projects, I/II

cc: See next page

PDI-1 CW
 CVogan
 3/3/88

PDI-1 Sam
 SMcNeil:dlg
 3/4/88

EMEB
 Marsh
 3/4/88

w/ mods

with changes
 OGC
 J. Krole
 3/10/88
 JRM

RAC
 PDI-1
 RCapra
 3/1/88

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

Calvert Cliffs Nuclear Power Plant

cc:

Mr. John M. Gott, President
Calvert County Board of
Commissioners
Prince Frederick, Maryland 20768

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

D. A. Brune, Esq.
General Counsel
Baltimore Gas and Electric Company
P. O. Box 1475
Baltimore, Maryland 21203

Jay E. Silberg, Esq.
Shaw, Pittman, Potts and Trowbridge
1800 M Street, NW
Washington, DC 20036

Mr. M. E. Bowman, General Supervisor
Technical Services Engineering
Calvert Cliffs Nuclear Power Plant
MD Rts 2 & 4, P. O. Box 1535
Lusby, Maryland 20657-0073

Resident Inspector
c/o U.S. Nuclear Regulatory Commission
P. O. Box 437
Lusby, Maryland 20657-0073

Bechtel Power Corporation
ATTN: Mr. D. E. Stewart
Calvert Cliffs Project Engineer
15740 Shady Grove Road
Gaithersburg, Maryland 20760

Combustion Engineering, Inc.
ATTN: Mr. W. R. Horlacher, III
Project Manager
P. O. Box 500
1000 Prospect Hill Road
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