



1650 CALVERT CLIFFS PARKWAY • LUSBY, MARYLAND 20657-4702

GEORGE C. CREEL
VICE PRESIDENT
NUCLEAR ENERGY
(410) 260-4455

June 24, 1992

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
Pressurized Thermal Shock Rule, Supplemental Response to NRC Request
for Additional Information, dated March 31, 1992 (TAC Nos. M82504
and M82505)

REFERENCES: (a) Letter from Mr. G. C. Creel (BG&E) to NRC Document Control
Desk, dated May 22, 1992, Response to NRC Request for Additional
Information
(b) Letter from Mr. D. G. McDonald, Jr. (NRC) to Mr. G. C. Creel
(BG&E), dated March 31, 1992, Request for Additional Information
(c) Letter from Mr. G. C. Creel (BG&E) to NRC Document Control
Desk, dated December 13, 1991, Response to the 1991 Pressurized
Thermal Shock Rule

Gentlemen:

During a telephone conference call on June 16, 1992, Mr. B. J. Elliot (NRC) requested that we respond to Question No. 2 of Reference (b) as it pertains to plate materials in the Unit 1 and 2 reactor vessels. Accordingly, the requested information is provided in Attachment (1), and supplements Reference (a).

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

Very truly yours,

AOA
11

GCC/BSM/bsm/dlm

Attachment: (1) Surveillance Test Results for Reactor Vessel Plate Materials, Units 1 & 2

9207060003 920624
PDR ADOCK 05000317
PDR

020

Document Control Desk

June 24, 1992

Page 2

cc: D. A. Brune, Esquire
J. E. Silberg, Esquire
R. A. Capra, NRC
D. G. McDonald, Jr., NRC
B. J. Elliot, NRC
T. T. Martin, NRC
P. R. Wilson, NRC
R. I. McLean, DNR
J. H. Walter, PSC

ATTACHMENT (1)

SURVEILLANCE TEST RESULTS FOR REACTOR VESSEL PLATE MATERIALS, UNITS 1 & 2

We reviewed measured RT_{NDT} shift results for plates in the Calvert Cliffs Reactor Vessel Surveillance Program (Table 1). These test results indicate the values of ΔRT_{PTS} calculated using the methodology specified in the PTS Rule bound the surveillance measurements.

TABLE (1)
SURVEILLANCE TEST RESULTS

	Surveillance Plate	Cu%	Ni%	Chemistry Factor	Fluence $\times 10^{19} \text{ n/cm}^2$	Measured Shift (@ 30 ft.-lbs) ($^{\circ}\text{F}$)	Predicted Shift (PTS Rule) ($^{\circ}\text{F}$)
Calvert Cliffs 1	D7206-3 _a	.12 _c	.64 _c	84	.61 _d	60 _d	72
	HSST 01 MY _a (Reference Plate)	.18 _f	.66 _f	136	.61 _d	88 _d	117
Calvert Cliffs 2	D8907-2 _b	.14 _c	.66 _c	102	.806 _e	84 _e	96
	HSST 01 MY _b (Reference Plate)	.18 _f	.66 _f	136	.806 _e	128 _e	128

REFERENCES

- a) "Summary Report on Manufacture of Test Specimens and Assembly of Capsules for Irradiation Surveillance of Calvert Cliffs Unit #1 Reactor Vessel Materials," Combustion Engineering, CENPD-34, February 1972
- b) "Summary Report on Manufacture of Test Specimens and Assembly of Capsules for Irradiation Surveillance of Calvert Cliffs Unit #1 Reactor Vessel Materials," Combustion Engineering, CENPD-48, August 1972
- c) Creel, G.C., letter dated December 13, 1991, "Response to the 1991 Pressurized Thermal Shock Rule"
- d) Perrin, J.S., E.O. Fromm, D.R. Farmelo, R.S. Denning, and R.G. Jung, "Calvert Cliffs Unit #1 Nuclear Plant Reactor Pressure Vessel Surveillance Program Capsule 263," Battelle Columbus Laboratories, December 1980
- e) Norris, E.B., "Reactor Vessel Material Surveillance Program for Calvert Cliffs Unit #2 Analysis of 263° Capsule," SwRI-7524, September 1985
- f) NUREG/CR-4947, "Analysis of the A302B and A533B Standard Reference Materials in Surveillance Capsules of Commercial Power Reactors," F.W. Stallman, January 1988