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February 10, 2006

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
ASME Section XI Relief Request Addendum To Specify Process Temperature
Monitoring Techniques for Repair and Examination of Unacceptable Indications
in Welded Nozzles

REFERENCES:

- (a) Letter from Mr. J. A. Spina (CCNPP) to Document Control Desk (NRC), dated January 18, 2006, ASME Section XI Relief Request to Use Weld Overlay and Associated Alternative Techniques
- (b) Letter from Ms. M. Gamberoni (NRC) to Mr. C. H. Cruse (BGE), dated April 5, 2000, Safety Evaluation of Proposed Alternate American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Section XI, 1998 Edition for the Third 10-Year Inspection Interval – Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 (TAC Nos. MA4647 and MA4648)

Calvert Cliffs Nuclear Power Plant (CCNPP) requested relief in a letter dated January 18, 2006 (Reference a), pursuant to 10 CFR 50.55a(a)(3)(i), and proposed alternatives to the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) requirements concerning repair/replacement activities for pressure retaining welds subject to Article IWA-4000 in Section XI for the Third Ten-Year Inservice Inspection interval. Based upon discussion with the U.S. Nuclear Regulatory Commission (NRC) staff on January 30, 2006, CCNPP amends the original relief request (Reference a) with the attached addendum.

Nuclear Regulatory Commission approved Code Cases N-504-2 and N-638-1 contain the requirements for structural weld overlay repair activities and temperbead welding technique. The ASME approved Code Cases N-504-2 and N-638-1 are listed as acceptable for use in NRC Regulatory Guide 1.147, Revision 14, with conditions. Calvert Cliffs Nuclear Power Plant requested relief (Reference a) from specific requirements on January 18, 2006. Although these Code Cases do not specify the method used to monitor process temperatures, ASME Code Section XI, Article 4000 contains requirements which, if employed at CCNPP, would impose a hardship without real benefit.

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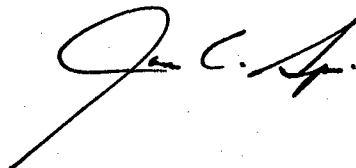
In lieu of weld-attached thermocouples and recording instruments as required under ASME Code Section XI IWA-4610(a), we propose to monitor the process temperatures with contact pyrometer(s) and provide a manual record of the process temperatures. Details of this request are provided in Attachment (1).

SCHEDULE

The structural weld overlay is intended as a contingency repair for any flaws identified during examination of dissimilar metal welds in the upcoming Calvert Cliffs Unit 1 Spring 2006 refueling outage (scheduled to begin in late February 2006) and the remainder of the third ten-year inservice inspection interval for Units 1 and 2. We request that the NRC review and approve our proposed alternative for use during this outage and subsequent third interval outages.

Should you have questions regarding this matter, please contact Mr. L. S. Larragoite at (410) 495-4922.

Very truly yours,



JAS/MJY/bjd

Attachment: (1) Relief Request Addendum To Specify Process Temperature Monitoring Techniques for Repair and Examination of Unacceptable Indications in Welded Nozzles

cc: P. D. Milano, NRC
S. J. Collins, NRC

Resident Inspector, NRC
R. I. McLean, DNR

ATTACHMENT (1)

**RELIEF REQUEST ADDENDUM TO SPECIFY PROCESS
TEMPERATURE MONITORING TECHNIQUES FOR REPAIR AND
EXAMINATION OF UNACCEPTABLE INDICATIONS IN WELDED
NOZZLES**

ATTACHMENT (1)

RELIEF REQUEST ADDENDUM TO SPECIFY PROCESS TEMPERATURE MONITORING TECHNIQUES FOR REPAIR AND EXAMINATION OF UNACCEPTABLE INDICATIONS IN WELDED NOZZLES

COMPONENTS FOR WHICH RELIEF IS REQUESTED:

Class 1 dissimilar metal welds, with unacceptable indications attributed to primary water stress corrosion cracking (PWSCC) in existing Alloy 82/182 welds. These welds may include:

UNIT 1 DM WELD POPULATION					
Designator/ID	Weld Material	Nozzle Size	Location	Function	Base Material
102300/30-RC-11A-W7	182/82	30"	11A RCP Inlet	RCS Loop	A516-70/A351-CF8M
102450/30-RC-11A-W10	182/82	30"	11A RCP Outlet	RCS Loop	A516-70/A351-CF8M
104550/30-RC-11B-W7	182/82	30"	11B RCP Inlet	RCS Loop	A516-70/A351-CF8M
104700/30-RC-11B-W10	182/82	30"	11B RCP Outlet	RCS Loop	A516-70/A351-CF8M
107450/30-RC-12A-W7	182/82	30"	12A RCP Inlet	RCS Loop	A516-70/A351-CF8M
107600/30-RC-12A-W10	182/82	30"	12A RCP Outlet	RCS Loop	A516-70/A351-CF8M
109600/30-RC-12B-W7	182/82	30"	12B RCP Inlet	RCS Loop	A516-70/A351-CF8M
109750/30-RC-12B-W10	182/82	30"	12B RCP Outlet	RCS Loop	A516-70/A351-CF8M
110450/12-PSL-W1	182/82	12"	Bottom Head of PZR	PZR Surge	SA508-C12/ SA351-CF8M
111100/12-PSL-W13	182/82	12"	Top of 11 Hot Leg	PZR Surge	A105-GrII/ A351-CF8M
113150/12-SC-1004-W1	182/82	12"	Bottom of 12 Hot Leg	Shutdown Cooling	A105-GrII/ A351-CF8M
114350/12-SI-1009-W16	182/82	12"	Top of 11A Cold Leg	Safety Injection	A182-F-1/ A351-CF8M
115200/12-SI-1010-W14	182/82	12"	Top of 11B Cold Leg	Safety Injection	A182-F-1/ A351-CF8M
116000/12-SI-1011-W13	182/82	12"	Top of 12A Cold Leg	Safety Injection	A182-F-1/ A351-CF8M
116750/12-SI-1012-W13	182/82	12"	Top of 12B Cold Leg	Safety Injection	A182-F-1/ A351-CF8M
118500/4-PS-1003-W6	182/82	4"	Top Head of PZR	PZR Spray	SA508-C12/SA-182-F316
118550/3-PS-1001-W1	182/82	3"	Top of 11A Cold Leg	PZR Spray	A105-GrII/A-182-TP316
120350/3-PS-1002-W1	182/82	3"	Top of 11B Cold Leg	PZR Spray	A105-GrII/A-182-TP316
123100/4-SR-1005-W1	182/82	4"	Top of PZR	PZR Relief	SA508-C12/SA-182-F316
123450/4-SR-1006-W1	182/82	4"	Top of PZR	PZR Relief	SA508-C12/SA-182-F316
125050/2-LD-1004-W1	182/82	2"	Bottom of 12A Cold Leg	Letdown/Drain	A105-GrII/A-182-TP316
128900/2-CV-1004-W19	182/82	2"	12B Cold Leg	Charging Inlet	A105-GrII/A-182-TP316
130450/2-CV-1005-W29	182/82	2"	11A Cold Leg	Charging Inlet	A105-GrII/A-182-TP316
131200/2-DR-1003-W1	182/82	2"	Bottom of 11A Cold Leg	Loop Drain	A105-GrII/A-182-TP316
131500/2-DR-1004-W1	182/82	2"	Bottom of 11B Cold Leg	Loop Drain	A105-GrII/A-182-TP316
132150/2-DR-1006-W1	182/82	2"	Bottom of 12B Cold Leg	Loop Drain	A105-GrII/A-182-TP316

ATTACHMENT (1)

RELIEF REQUEST ADDENDUM TO SPECIFY PROCESS TEMPERATURE MONITORING TECHNIQUES FOR REPAIR AND EXAMINATION OF UNACCEPTABLE INDICATIONS IN WELDED NOZZLES

UNIT 1 DM WELD POPULATION					
Designator/ID	Weld Material	Nozzle Size	Location	Function	Base Material
132450/2-DR-1007-W1	182/82	2"	Bottom of 11 Hot Leg	Loop Drain	A105-GrII/A-182-TP316

UNIT 2 DM WELD POPULATION					
Designator/ID	Weld Material	Nozzle Size	Location	Function	Base Material
109280/30-RC-21A-W7	182/82	30"	21A RCP Inlet	RCS Loop	A516-70/A351-CF8M
109310/30-RC-21A-W10	182/82	30"	21A RCP Outlet	RCS Loop	A516-70/A351-CF8M
110280/30-RC-21B-W7	182/82	30"	21B RCP Inlet	RCS Loop	A516-70/A351-CF8M
110310/30-RC-21B-W10	182/82	30"	21B RCP Outlet	RCS Loop	A516-70/A351-CF8M
111280/30-RC-22A-W7	182/82	30"	22A RCP Inlet	RCS Loop	A516-70/A351-CF8M
111310/30-RC-22A-W10	182/82	30"	22A RCP Outlet	RCS Loop	A516-70/A351-CF8M
112280/30-RC-22B-W7	182/82	30"	22B RCP Inlet	RCS Loop	A516-70/A351-CF8M
112310/30-RC-22B-W10	182/82	30"	22B RCP Outlet	RCS Loop	A516-70/A351-CF8M
113010/12-PSL-W1	182/82	12"	Bottom Head of PZR	PZR Surge	SA508-CI2/ SA351-CF8M
113130/12-PSL-W13	182/82	12"	Top of 21 Hot Leg	PZR Surge	A105-GrII/ A351-CF8M
114900/12-SC-2004-W1	182/82	12"	Bottom of 22 Hot Leg	Shutdown Cooling	A105-GrII/ A351-CF8M
115140/12-SI-2009-W15	182/82	12"	Top of 21B Cold Leg	Safety Injection	A182-F-1/ A351-CF8M
116190/12-SI-2010-W13	182/82	12"	Top of 21A Cold Leg	Safety Injection	A182-F-1/ A351-CF8M
117120/12-SI-2011-W13	182/82	12"	Top of 22B Cold Leg	Safety Injection	A182-F-1/ A351-CF8M
118120/12-SI-2012-W13	182/82	12"	Top of 22A Cold Leg	Safety Injection	A182-F-1/ A351-CF8M
136090/4-PS-2003-W8	182/82	4"	Top Head of PZR	PZR Spray	SA508-CI2/SA-182-F316
137010/3-PS-2001-W1	182/82	3"	Top of 21A Cold Leg	PZR Spray	A105-GrII/A-182-TP316
138010/3-PS-2002-W1	182/82	3"	Top of 21B Cold Leg	PZR Spray	A105-GrII/A-182-TP316
141000/4-SR-2005-W1	182/82	4"	Top of PZR	PZR Relief	SA508-CI2/SA-182-F316
142000/4-SR-2006-W1	182/82	4"	Top of PZR	PZR Relief	SA508-CI2/SA-182-F316
152440/2-CV-2005-W30	182/82	2"	21A Cold Leg	Charging Inlet	A105-GrII/A-182-TP316
156530/2-CV-2021-W34	182/82	2"	22B Cold Leg	Charging Inlet	A105-GrII/A-182-TP316
157010/2-DR-2003-W1	182/82	2"	Bottom of 21A Cold Leg	Loop Drain	A105-GrII/A-182-TP316
158010/2-DR-2004-W1	182/82	2"	Bottom of 21B Cold Leg	Loop Drain	A105-GrII/A-182-TP316
160010/2-DR-2006-W1	182/82	2"	Bottom of 22B Cold Leg	Loop Drain	A105-GrII/A-182-TP316

ATTACHMENT (1)

RELIEF REQUEST ADDENDUM TO SPECIFY PROCESS TEMPERATURE MONITORING TECHNIQUES FOR REPAIR AND EXAMINATION OF UNACCEPTABLE INDICATIONS IN WELDED NOZZLES

CODE REQUIREMENTS FOR WHICH RELIEF IS REQUESTED

The 1998 Edition, no Addenda, of American Society of Mechanical Engineers (ASME) Section XI, Article IWA-4000. The Third Ten-Year Inservice Inspection Program Plan for Calvert Cliffs Units 1 and 2 meets the requirements of the 1998 Edition, no Addenda, of Section XI of the ASME Code (except for Subsections IWE and IWL), as approved by NRC letter (Reference b).

PROPOSED ALTERNATIVE AND SUPPORTING INFORMATION

American Society of Mechanical Engineers Code Section XI, IWA-4610(a) states, "Thermocouples and recording instruments shall be used to monitor the process temperatures. Their attachment and removal shall be in accordance with Section III."

In lieu of weld-attached thermocouples and recording instruments as required under ASME Code Section XI IWA-4610(a), Calvert Cliffs Nuclear Power Plant proposes to monitor the process temperatures with contact pyrometers and provide a manual record of the process temperatures. This method will provide an acceptable alternative because the calibrated contact pyrometers will provide an accurate record while reducing the radiation exposure necessary to install, remove, and perform non-destructive examinations on the welded areas.

CONCLUSION

Calvert Cliffs believes the proposed alternative to ASME Code Section XI, IWA-4610(a), as described in this request, provides an acceptable level of quality and safety.