



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 4, 2013

Mr. George H. Gellrich, Vice President
Calvert Cliffs Nuclear Power Plant, LLC
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2 - REQUEST FOR
ADDITIONAL INFORMATION REGARDING RELIEF REQUEST RR-ISI-04-07A,
"DISSIMILAR METAL BUTT WELDS BASELINE EXAMINATIONS" (TAC NO.
ME8871)

Dear Mr. Gellrich:

By letter dated June 7, 2012, as supplemented by letter dated January 10, 2013, Calvert Cliffs Nuclear Power Plant, LLC submitted relief request RR-ISI-04-07A for authorization of proposed alternative to the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (Code) Case N-770-1 for Calvert Cliffs Nuclear Power Plant, Unit No. 2.

The Nuclear Regulatory Commission staff is reviewing the submittal and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). The NRC staff is requesting a response to the RAI within 30 days of receipt.

If you have any questions regarding this issue, please contact me at (301) 415-1016.

Sincerely,

A handwritten signature in black ink, appearing to be "Nadiyah S. Morgan", written over a horizontal line.

Nadiyah S. Morgan, Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-318

Enclosure:
RAI

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION
REGARDING RELIEF REQUEST RR-ISI-04-07A
CALVERT CLIFFS NUCLEAR POWER PLANT, LLC.
CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2
DOCKET NO. 50-318

By letter dated June 7, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12164A372), as supplemented by letter dated January 10, 2013 (ADAMS Accession No. ML13015A007), Calvert Cliffs Nuclear Power Plant, LLC, the licensee, submitted relief request RR-ISI-04-07A for authorization of proposed alternative to the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) Case N-770-1 for Calvert Cliffs Nuclear Power Plant, Unit No. 2.

On January 23, 2013, the Nuclear Regulatory Commission (NRC) staff took conducted conference call with the licensee to discuss the licensee's response to the NRC staff's request for additional information (RAI). Open items discussed included determination of the maximum hypothetical flaw size possible in the unexamined region of weld 30RC-21B-10, determination of a maximum assumed flaw repair depth to be used in weld residual stress (WRS) calculations, and evaluation of service lifetime of the largest hypothetical flaw in weld 30RC-21B-10. As the result of the licensee's RAI response and the discussion during the conference call, the NRC staff requests additional information. The NRC staff is performing further work to determine the ability of the previous ultrasonic examination to detect the maximum flaw size proposed by the licensee and, depending on the result of this evaluation, another RAI may be necessary. The NRC staff requests the following additional information:

1. Please provide the documentation produced during weld fabrication that indicates there were no flaw repairs in excess of 10 percent through-wall depth on weld 30RC-21B-10.
2. In the licensee's response to the NRC staff's RAI question 4, concerning determination of service lifetime, the licensee cites the results presented in Figures 6-17 through 6-20 of WCAP-17128-NP and Figures 5-2 and 5-3 of MRP-349 to support a service period of 10 years. Figures 6-17 through 6-20 of WCAP-17128-NP present service lifetime data only up to a period of 48 months, thus cannot be used to support the 10-year service lifetime. Figure 5-2 of MRP-349 is for a weld without WRS, thus is not applicable. Figure 5-3 of MRP-349 presents flaw tolerance curves for lifetimes up to 120 months for welds with WRS. However, the NRC staff was unable to find sufficient supporting information concerning the assumed weld repair depth, WRS, weld geometry, and loading conditions, either in MRP-349 or the documents referenced therein, to evaluate the calculations performed.

Enclosure

The NRC staff finds that the available technical information is currently insufficient to support acceptance of the baseline examination for up to 7 years. In order to permit the NRC staff to independently confirm the proposed service lifetime, please provide either a complete lifetime calculation for weld 30RC-21B-10 for the NRC staff review or the pertinent data supporting Figure 5-3 of MRP-349, including specific references and their associated page numbers, for the following:

- a. Depth of weld repair used for the WRS calculations
- b. WRS data, either in graphical or tabular form, or as 4th order polynomial coefficients
- c. Pipe inside diameter
- d. Pipe wall thickness
- e. Total axial stress at the weld location, including contribution of pressure, temperature and external loading
- f. Global bending stress at the weld location
- g. If the stress effect of the safe end stainless steel closure weld is credited for the existing nozzle to weld stress state, state the length of the safe end and provide details of its stress effect
- h. Calculated growth with time of the largest assumed initial flaw (if available)

February 4, 2013

Mr. George H. Gellrich, Vice President
Calvert Cliffs Nuclear Power Plant, LLC
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2 - REQUEST FOR
ADDITIONAL INFORMATION REGARDING RELIEF REQUEST RR-ISI-04-07A,
"DISSIMILAR METAL BUTT WELDS BASELINE EXAMINATIONS" (TAC NO.
ME8871)

Dear Mr. Gellrich:

By letter dated June 7, 2012, as supplemented by letter dated January 10, 2013, Calvert Cliffs Nuclear Power Plant, LLC submitted relief request RR-ISI-04-07A for authorization of proposed alternative to the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (Code) Case N-770-1 for Calvert Cliffs Nuclear Power Plant, Unit No. 2.

The Nuclear Regulatory Commission staff is reviewing the submittal and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). The NRC staff is requesting a response to the RAI within 30 days of receipt.

If you have any questions regarding this issue, please contact me at (301) 415-1016.

Sincerely,

/RA/

Nadiyah S. Morgan, Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-318

Enclosure:
RAI

cc w/encl: Distribution via Listserv

DISTRIBUTION:

PUBLIC	RidsNrrDorlLpl1-1	RidsNrrPMCalvertCliffs
LPL1-1 R/F	RidsNrrLAKGoldstein	RidsAcrcsAcnw_MailCenter
RidsNrrDorIDpr	RidsRgn1MailCenter	JWallace, NRR
RidsOGCMailCenter	RidsNrrDeEpnb	JCollins, NRR

ADAMS ACCESSION NO: ML13031A384

***See dated memo**

OFFICE	LPLI-1/PM	LPLI-1/LA	DE/EPNB	LPLI-1/BC
NAME	NMorgan	KGoldstein	TLupold	GWilson
DATE	02/04/2013	02/01/2013	01/30/2013*	02/04/2013

OFFICIAL RECORDS COPY