

May 5, 2000

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
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Washington, DC 20555-0001

Gentlemen:

ULNRC-04242



**DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
UNION ELECTRIC CO.
REFUEL 10
REQUEST FOR RELIEF ISI-19 AND ISI-20**

In accordance with 10CFR50.55a(g)(5)(iii), Callaway is requesting relief from the requirements of the 1989 Edition of ASME Section XI, as detailed in attached Relief Requests ISI-19 and ISI-20. These Relief Requests detail the examination limitations encountered during Callaway Refuel 10.

Please contact Mr. D. Shafer at (314) 554-3104 or Mr. B. L. Montgomery at (573) 676-8539 if you have any questions.

Very truly yours,

A handwritten signature in cursive script, appearing to read "A. C. Passwater".

A. C. Passwater
Manager-Corporate Nuclear Services

ACP/jdg

Attachment (3 pages)

cc: U. S. Nuclear Regulatory Commission (Original and 1 copy)

Attn: Document Control Desk

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CALLAWAY ISI RELIEF REQUEST ISI-19

System: Reactor Coolant System (BB)

Examination Category: B-F
Item Number: B5.40

Component Description: 2-TBB03-3-C-W is a Pressurizer Safety Nozzle to Safe-end Weld.
2-TBB03-4-W is a Pressurizer Relief Nozzle to Safe-end Weld.

Code Requirement: ASME Section XI, 1989 Edition, Table IWB-2500-1, Examination Category B-F, Item Number B5.40 (figure IWB-2500-8) requires 100% volumetric examination of the inner 1/3 thickness of weld metal plus the inner 1/3 of adjacent base metal for a distance of 1/4" beyond the edge of the weld crown.

Areas for Relief: A composite coverage of 53.7% of the required weld volume was achieved for weld 2-TBB03-3-C-W and 53.8% of the required weld volume for 2-TBB03-4-W. 100% coverage was achieved for the surface examination (PT).

Description of coverage limitations: Scanning of the subject welds is limited due to the geometry of the safe end joint and metallurgical obstruction due to Inconel buttering.

Achieved Coverage:

<u>2-TBB03-3-C-W</u>	
Parallel Scan in Two Directions	58.7%
Axial Scan from upstream side	38.0%
Axial Scan from downstream side	59.5%
Composite coverage	53.7%

<u>2-TBB03-4-W</u>	
Parallel Scan in Two Directions	67.3%
Axial Scan from upstream side	33.4%
Axial Scan from downstream side	47.3%
Composite coverage	53.8%

**CALLAWAY ISI
RELIEF REQUEST ISI-19**
(cont'd)

**Description of coverage
limitations (continued):**

Comments(common to both weld exams):

1. The parallel scan (both clockwise and counter-clockwise) was obstructed due to the contour of the nozzle that caused liftoff of the transducer for a portion of the required exam volume.
2. The Axial scan from the upstream side was obstructed due to the flaring of the nozzle (safety nozzle to top head weld) as it enters the Pressurizer.
3. The Axial scan from the downstream side was obstructed due to the same contour cited in the parallel scan comment above.
4. Coverage is essentially the same as that cited in PSI relief request (SLNRC 84-0061, 4/9/84, Attachment E) and Interval 1 Request for Relief D (SLNRC-84-036, 2/24/84 and ULNRC-1457, dated 3/3/87 and approved by NRC letter dated 12/14/88); with the exception that no credit is now being taken for that part of the Parallel Scan (both directions) that is obscured by liftoff due to component configuration.
5. A 60° L-wave scan was performed on the nozzle side of the weld to compensate for beam redirection due to the Inconel buttering. The estimated coverage is conservatively based on this nominal 60° angle. With beam redirection, the actual examination angle is estimated to be closer to 45° and thus yields a greater weld volume examined than was credited. In addition, sound skewed into the required weld volume from the base metal was not credited for the circumferential exam, however skewing was performed. This also resulted in a conservative estimation of coverage.

Basis for Relief:

Based on the fact that no indications were detected, the weld integrity has been assured. It is impractical to achieve any additional weld coverage at this time, therefore relief is requested pursuant to 10CFR50.55a(g)(5)(iii)

Alternate Testing:

None. The maximum possible volume was examined as practical. The extent of this ultrasonic examination, the liquid penetrant surface examination, the Section XI VT-2 (visual) examination for leakage performed once every refueling outage, and the reactor coolant leakage detection system verify weld integrity.

CALLAWAY ISI RELIEF REQUEST ISI-20

System: Reactor Coolant System (BB)

Examination Category: B-B

Item Number: B2.40

Component Description: 2-EBB01B-SEAM-1-W is a Bottom Head to Tube Sheet vessel weld on the B Steam Generator.
2-EBB01C-SEAM-1-W is a Bottom Head to Tube Sheet vessel weld on the C Steam Generator.

Code Requirement: ASME Section XI, 1989 Edition, Table IWB-2500-1, Examination Category B-B, Item Number B2.40 (figure IWB-2500-6) requires 100% volumetric examination of the weld metal plus the adjacent base metal for a distance of 1/2" vessel thickness beyond the edge of the weld crown.

Areas for Relief: A composite coverage of 77.5% of the required weld volume was achieved for weld 2-EBB01B-SEAM-1-W and 2-EBB01C-SEAM-1-W.

Description of coverage limitations: Scanning of the subject welds is limited due to four permanent support lugs on each Steam Generator.

Achieved Coverage:

	<u>2-EBB01B-SEAM-1-W</u>	
Parallel Scan		77.5%
Axial Scan		77.5%
Composite coverage		77.5%
	<u>2-EBB01C-SEAM-1-W</u>	
Parallel Scan		77.5%
Axial Scan		77.5%
Composite coverage		77.5%

Coverage is essentially the same as that cited in Interval 1 Request for Relief O (Reference ULNRC-2428, 6/28/91 and NRC approval letter dated 10/3/91); with the exception that credit is now being taken for utilizing two angle beams that eliminated the loss of coverage due to the tube sheet and Code Data Plate interference. This is per ASME Section V, Article 4, paragraph T-441.3.2.6 (1989 Edition).

Basis for Relief: Based on the fact that no indications were detected, the weld integrity has been assured. It is impractical to achieve any additional weld coverage at this time, therefore relief is requested pursuant to 10CFR50.55a(g)(5)(iii)

Alternate Testing: None. The maximum possible volume was examined as practical. The extent of this ultrasonic examination, the Section XI VT-2 (visual) examination for leakage performed once every refueling outage, and the reactor coolant leakage detection system verify weld integrity.