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CP-201000890
Log # TXX-10092

Ref. # 10 CFR 50.55a(g)(5)(iii)

December 15, 2010

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT
DOCKET NO. 50-445
RELIEF REQUEST NO. C-7 FOR THE UNIT 1 SECOND 10 YEAR ISI INTERVAL FROM 10 CFR 50.55a INSPECTION REQUIREMENTS DUE TO PHYSICAL INTERFERENCES
(SECOND INTERVAL START DATE: AUGUST 13, 2000)

Dear Sir or Madam:

Pursuant to 10 CFR 50.55a(g)(5)(iii), Luminant Generation Company, LLC (Luminant Power) is submitting Relief Request C-7 (see attachment) for Comanche Peak Unit 1 for the second ten year inservice inspection interval. Luminant Power has determined that certain inspection requirements of ASME Section XI are impractical due to physical interferences.

The geometry of the containment spray heat exchanger makes the Code required examination coverage requirements impractical. Ultrasonic Testing (UT) of the subject weld was performed during the second interval to the maximum extent practical based on design configuration restrictions. Pressure test VT-2 visual examinations were also performed with no evidence of leakage identified for the subject component. No undue risk to the public health and safety is presented by this request.

This communication contains no new licensing basis commitments regarding Comanche Peak Unit 1. Should you have any questions, please contact Mr. Jack Hicks at (254)897-6725.

Sincerely,

Luminant Generation Company LLC

Rafael Flores

By: Fred W. Madden
Fred W. Madden
Director, Oversight & Regulatory Affairs

A047
NRR

Attachments - 1. Relief Request C-7 for Unit 1 Relief Request for Weld Examination Coverage for the Containment Spray Heat Exchanger
2. Drawing and Inspection Sheets for the Containment Spray Heat Exchanger

c - E. E. Collins, Region IV
B. K. Singal, NRR
Resident Inspectors, Comanche Peak
Brian Welch, ANII, Comanche Peak
Anthony Jones, TDLR

10CFR 50.55a Request Number C-7
Relief Requested
In Accordance with 10CFR50.55a(g)(5)(iii)
- Inservice Inspection Impracticality -

1. **ASME Code Component Affected:**

Class 2 Containment Spray Heat Exchanger (CP1-CTAHCS-02) Shell Circumferential Weld

Code Cat / Item No.	Description	Weld No.
C-A / C1.10	CT HX 1-02 Shell to Flange Weld	TBX-2-1180-2

2. **Applicable Code Edition and Addenda:**

The applicable ASME Boiler and Pressure Vessel Code (hereafter referred to as the "Code") edition and addenda is ASME Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," 1998 Edition through 2000 Addenda.

3. **Applicable Code Requirement:**

ASME Section XI, Figure IWC-2500-1(a) 1998 Edition through 2000 Addenda, requires a minimum volumetric examination of the weld volume extending ½" into the base metal on the vessel and flange sides for the circumferential weld (Code Item C1.10).

Comanche Peak Nuclear Power Plant (CPNPP) second ten-year interval Inservice Inspection Program Plan also implements Code Case N-460, which is endorsed by the NRC in revision 15 of Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability ASME Section XI, Division 1." Code Case N-460 states, in part, when the entire examination volume or area cannot be examined due to interference by another component or part geometry, a reduction in examination coverage on any Class 1 or Class 2 weld may be accepted, provided the reduction coverage for that weld is less than 10 percent.

NRC Information Notice (IN) 98-42, "Implementation of 10CFR50.55a(g) Inservice Inspection Requirements," termed a reduction in coverage of less than 10 percent to be "essentially 100 percent." IN 98-42 states, in part, "The NRC has adopted and further refined the definition of "essentially 100 percent" to mean "greater than 90 percent"...has been applied to all examinations of welds or other areas required by ASME Section XI."

10CFR50.55a Request Number C-7

4. Impracticality of Compliance:

The examination of the subject component weld is limited by the configuration of the flange design and the proximity of two welded support plates on the shell side of the heat exchanger. As shown on the Attachment 2, the proximity of the welded supports and the flange configuration limit the parallel scans (circumferential). Perpendicular (axial) scans are limited mainly by the welded supports on the shell side of the weld. This yields a composite coverage of 41.47% of the required examination volume. The examinations were conducted in accordance with procedure TX-ISI-214,"Ultrasonic Examination Procedure for Welds in Piping Systems and Vessels." Angle beams (45° shear and 70° longitudinal) scans were used to achieve the weld volume obtained.

5. Burden caused by Compliance:

The design configuration restrictions of the of the subject component makes the Code required examination coverage requirements for the weld volume impractical. Plant modifications or replacements of components designed to allow for complete coverage would be needed to meet the Code requirements. This would cause considerable burden to CPNPP.

6. Proposed Alternative and Basis for Use:

Proposed Alternative:

The following alternatives are proposed in lieu of the required examination coverage of essentially 100 percent:

1. Ultrasonic testing (UT) of the subject component weld was performed to the maximum extent practical during the second ten-year interval.

2. Pressure test VT-2 visual examinations were performed, as required by Code Category C-H, during the second ten-year interval. No evidence of leakage was identified for this component.

10CFR50.55a Request Number C-7

Basis for use:

The basis for use of this alternative is that it provides the best examination coverage practical within the limitations of the current configuration. Based on the percentage of the examination volume completed and the lack of any indications identified, there is a high level of confidence in the continued structural integrity of the weld. CPNPP believes that there is no undue risk to the public health and safety presented by this request.

7. Duration of Proposed Alternative:

The second ten-year ISI interval for Unit 1 began on August 13, 2000 and ends on August 12, 2010.

8. Precedents:

Relief Request C-9 was submitted in letter TXX-98170 from CPNPP to USNRC in July 22, 1998 for the first ten-year interval for Unit 1.

PDI

Calibration Data Sheet

Plant / Unit	COMANCHE PEAK UNIT 1
Company	WESDYNE
Comp / System	CONTAINMENT SPRAY HX
Procedure No.	TX-ISI-214
Rev / Chng. No.	4 / N/A
Cal. Block No.	TBX-31 / PDI-03
Cal. Block Temp	74° Comp. Temp 71°
Therm S/N:	TU-2250
Size	N/A Sch. .625" "T"

☐ Ferritic ☒ Austenitic

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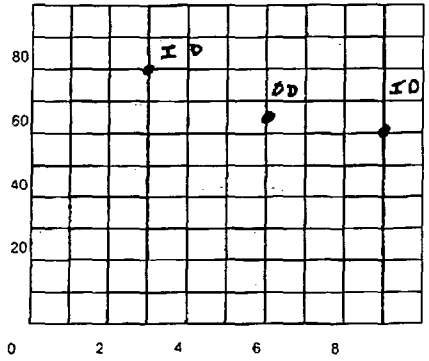
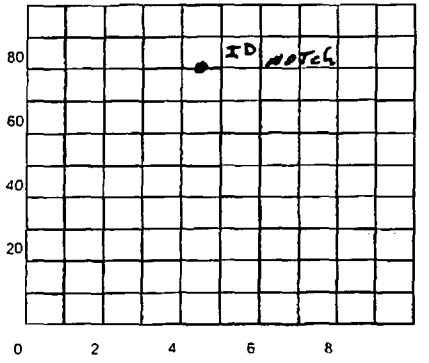
Cal. Checks	Time
Initial Calib.	0900
Initial Calib. Date	3/18/10
Intermediate	N/A
Intermediate	N/A
Final Calib.	1150
Final Calib. Date	3/18/10

TBX-31



1 CRT Div. = 0.2907"

PDI-03



1 CRT Div. = 0.2907"

Cal. Direction: ☐ Axial ☐ Circ. ☒ Both

Scan Area: ⊥ to Weld ∥ to Weld

Couplant

Type: ULTRA GEL II
Batch: 06225

Examination Area / Weld		Access	Recordable Indications Yes	No	Geom	Exam Sens.
TBX-2-1180	2-1	2-SIDED		X		30 dB / 49 dB
TBX-2-1180	2-2	1-SIDED		X		30 dB / 49 dB

Remarks / Reason for Incomplete Scan(s)

WELD TBX-2-1180 2-1, 100% EXAMINATION COVERAGE ACHIEVED

WELD TBX-2-1180 2-2, SEE PREVIOUS DATA FOR LIMITATION DOCUMENTATION, 41.47% EXAMINATION COVERAGE ACHIEVED

Search Unit #1

Manufacturer: KBA
Serial No.: 00YH5B Freq.: 2.25 MHz
Size: .5" Shape: ROUND
Exam Angle: 45° Model: COMP-G
Measured Angle: 45° S
Wedge Style: MSWQC

Search Unit Cable

Type: RG-174
Length: 6' No. of Connectors: 0

Instrument Settings

Make / Model: GE IT / USN 60 SW
Serial No.: SAP 105204
Dis.Delay: 3.550 µs Range: 2.907
Prb.Delay: 3.8016 µs Pwidth: 220
M'tl Cal/Vel: .1228 µs Pulser: SQUARE
Damping: 500 Ω Reject: 0%
Rep. Rate: AUTOHIGH Freq.: 2.25 MHz
Filter: FIXED Mode: P/E
Voltage: 450 Rectify: FULLWAVE
Reference Sensitivity (Sens.)
Axial: 18 dB Circ: 18 dB
SDH Sensitivity: N/A
Further Evaluation Required? ☐ Yes ☒ No

Search Unit #2

Manufacturer: RTD
Serial No.: 01-988 Freq.: 2.00 MHz
Size: 2(8x14) Shape: RECT
Exam Angle: 70° Model: TRL2
Measured Angle: 70° L
Wedge Style: INTEGRAL

Search Unit Cable

Type: RG-174
Length: 6' No. of Connectors: 0

Instrument Settings

Make / Model: GE IT / USN 60 SW
Serial No.: SAP 105204
Dis.Delay: 3.550 µs Range: 2.907
Prb.Delay: 10.6016 µs Pwidth: 250
M'tl Cal/Vel: .2423 µs Pulser: SQUARE
Damping: 500 Ω Reject: 0%
Rep. Rate: AUTOHIGH Freq.: 2.00 MHz
Filter: FIXED Mode: P/3
Voltage: 450 Rectify: FULLWAVE
Reference Sensitivity (Sens.)
Axial: 43.5 dB Circ:
SDH Sensitivity: N/A

Examiner: CAREY LASOYA Level II Date 3/18/10

Examiner: N/A Level N/A Date N/A

Reviewer / Date 4-10-10

Reviewer / Date 4/22/10

HSBET ADM 4-22-10

WESTINGHOUSE NUCLEAR SERVICES DIVISION
INSPECTION SERVICES

REPORT NO UT-98-023
PAGE 2 OF 2

PROFILE OF THE EXAMINATION VOLUME

815
3-22-1(

PLANT Comanche Peak UNIT 1 SKETCH TBX-2-1180 Rev. 1

SYST/COMP CONTAINMENT SPRAY PROCEDURE TX-ISI-214 Rev. 2 FC N/A

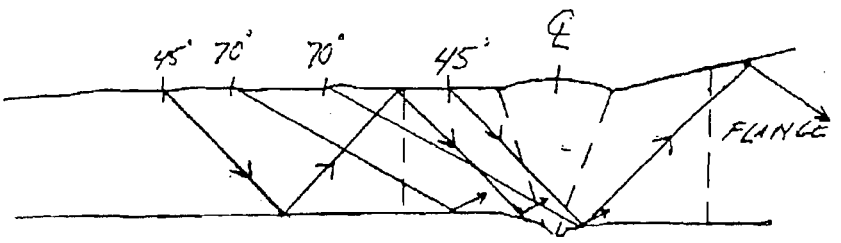
EXAMINER Williams, Mark LEVEL II DATE 3/20/98

EXAMINER N/A LEVEL N/A DATE

COMPONENT ID TBX-2-1180-2-2

COMMENTS/SKETCH/DETAILS

2 SIDE 5 SIDE



.64 .64 .80 .70

TU ELECTRIC REVIEW / DATE	TU ELECTRIC LEVEL III REVIEW / DATE	ANII REVIEW / DATE
3/31/98	4/1/98	4/2/98

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LIMITATION TO EXAMINATION

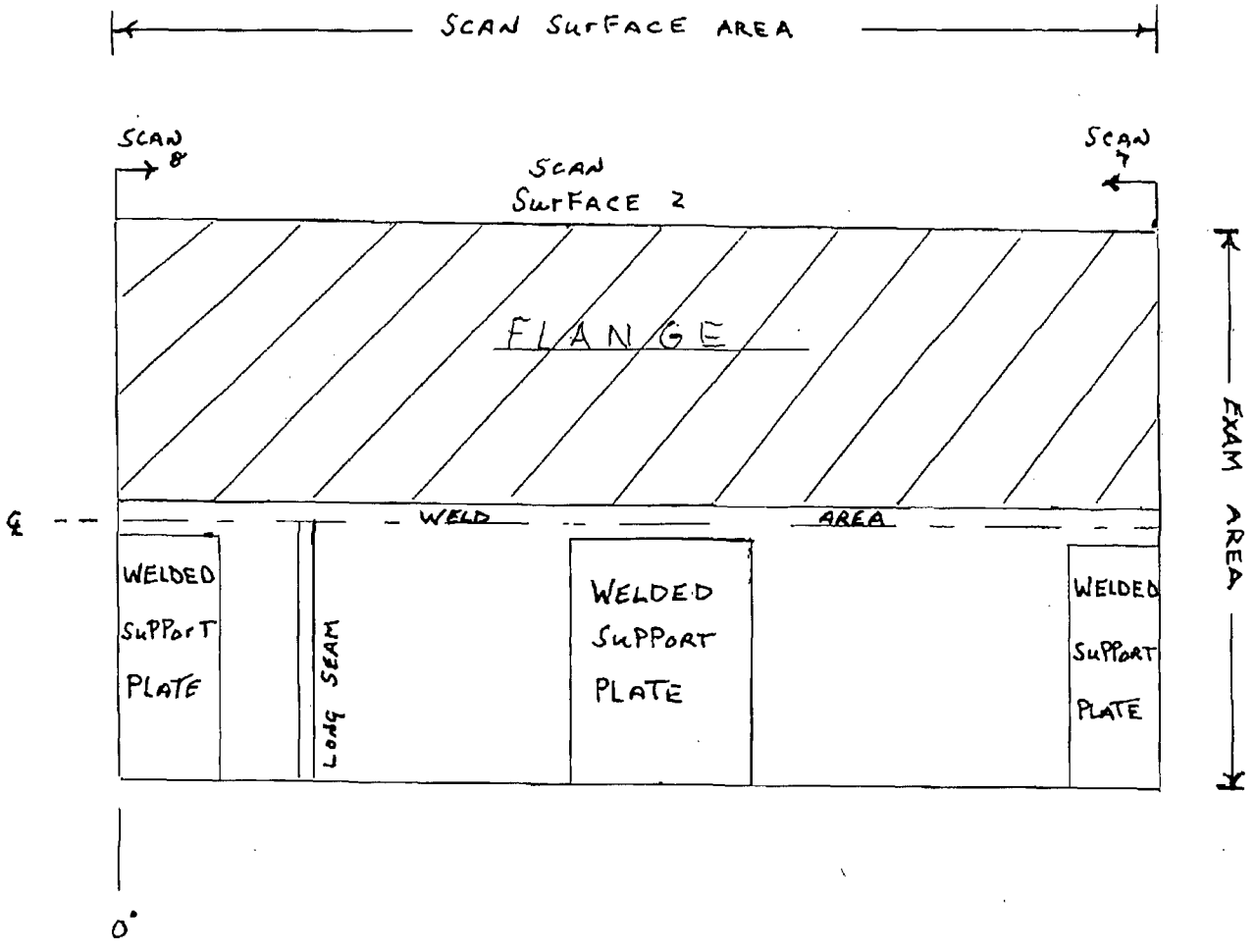
PLANT COMANCHE PEAK UNIT 1 SKETCH TBX-2-1180

SYST./COMP. CONTAINMENT SPRAY PROCEDURE TX-ISI-214, REV. 4

EXAMINER CAREY LASOYA Carey La Soya DATE 03/18/10

RELATED TO: UT X- PT ____ MT ____ VT ____ IDENT. NO. 2-2

PROVIDE GENERAL INFORMATION TO DESCRIBE APPROXIMATE SIZE, LOCATION AND TYPE OF LIMITATION.



LIMITATION: FLANGE TO SHELL WELD AND PROXIMITY OF WELDED SUPPORT PLATES. APPROXIMATELY 41.47 % EXAMINED. EXAMINATION VOLUME NOT OBTAINED. 58.53 %