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TXX-15115

Ref. # 10CFR50.55a(g)(5)(iii)

August 3, 2015

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

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT
DOCKET NO. 50-446
RELIEF REQUEST B-3 FOR UNIT 2 SECOND TEN YEAR INSERVICE INSPECTION
INTERVAL FROM 10CFR50.55a INSPECTION REQUIREMENTS DUE TO PHYSICAL
INTERFERENCES
(1998 EDITION OF ASME CODE, SECTION XI, 2000 ADDENDA
SECOND INTERVAL START DATE: AUGUST 3, 2004
SECOND INTERVAL END DATE: AUGUST 2, 2014)

Dear Sir or Madam:

Pursuant to 10 CFR 50.55a(g)(5)(iii), Luminant Generation Company, LLC (Luminant Power) is submitting Relief Request B-3 (see attachments) for Comanche Peak Unit 2 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 reactor coolant piping to the flange makes the Code required examination coverage requirements impractical. Ultrasonic Testing (UT) of the subject welds 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 2.

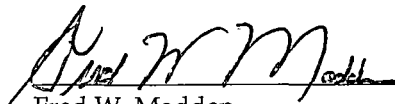
A047
NRR

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
Director, External Affairs

Attachment 1 – Relief Request B-3 for Unit 2 Second Ten Year ISI Interval from 10CFR50.55a Inspection Requirements due to Physical Interferences

Attachment 2 – Examination Data Sheets and Sketch (3 pages)

c - Marc L. Dapas, Region IV
Balwant K. Singal, NRR
Resident Inspectors, Comanche Peak
Rob D. Troutt, TDLR
Jack Ballard, ANII, Comanche Peak

COMANCHE PEAK NUCLEAR POWER PLANT UNIT 2
Relief Request Number B-3 for Unit 2 Second 10 Year ISI Interval
From 10CFR50.55a Inspection Requirements due to Physical Interferences
(Second 10-Year ISI Interval Start Date: August 3, 2004; End Date: August 2, 2014)

1. ASME Code Component Affected:

Class 1 Risk-Informed Inservice Inspection (RI-ISI) piping weld as shown:

RI-ISI Piping Weld (formerly Code Category B-I)

Code Cat / Item No. (Note)	Description	Weld No.
R-A, R1.11	6" pipe to pipe flange	TCX-1-4105-6

Note: As the methodology in EPRI TR-112657 Rev. B-A does not provide item numbers; the format in ASME Code Case N-578-1 is used for the assignment of this number.

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, "Rule for Inservice Inspection of Nuclear Power Plant Components," 1998 Edition, through 2000 Addenda. In addition, as required by 10CFR50.55a, ASME Section XI, 1995 Edition, 1996 Addenda is used for Appendix VIII, Performance Demonstration for Ultrasonic Examination System.

3. Applicable Code Requirement:

ASME Section XI, Figure IWB - 2500-8(c) 1998 Edition through 2000 Addenda requires volumetric examination of a minimum volume of the inner $1/3$ t (one third of the thickness) extending into the piping base metal for a distance of $1/4$ " past the edge of the weld crown for NPS 4" and larger.

In a letter (NRR 10580) dated October 5, 2006, from the NRC to Comanche Peak Steam Electric Station, Unit No. 2, the NRC approved in relief request A-1 the extension of risk-informed inspection (RI-ISI) program for ASME Code Class 1 and 2 piping for the second interval. The methodology in EPRI TR-112657 Rev. B-A is used as the examination method as well as the selection of welds to be examined. The RI-ISI program requires volumetric examination of the subject weld and extends the Code required volume of the inner $1/3$ t to $1/2$ " past the edge of the weld crown if no counterbore is present or a distance of $1/4$ " on either side of the weld counterbore.

The 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 14 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

COMANCHE PEAK NUCLEAR POWER PLANT UNIT 2
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"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.'

4. Impracticality of Compliance:

The geometry of the subject component limits the examination to one side, due to the pipe flange welded to the pipe. Volumetric examinations were performed with shear wave search units with nominal angles of 45 and 60 degrees. Coverage obtained was 100% in the two circumferential directions, and 100% in the upstream; however, downstream scan could not be taken due to the pipe flange. Thus, the coverage is limited to 75% as shown in Attachment 2. The examinations were conducted in accordance with procedure TX-ISI-302, "Ultrasonic Examination of Austenitic Piping Welds."

5. Burden caused by Compliance:

The design configuration restrictions of the subject components make the Code required examination coverage requirements for the weld volume impractical. Plant modifications or replacement 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 B-P, during the second ten-year interval. No evidence of leakage was identified for this component.

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 2 began on August 3, 2004 and ended on August 2, 2014.

8. Precedents:

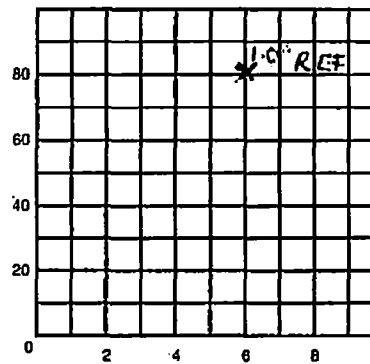
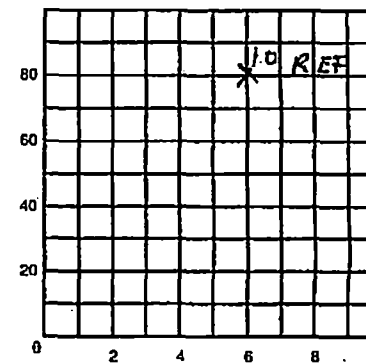
None

PDI**Calibration Data Sheet**

Plant/Unit COMANCHE UNIT 2
 Company WESDYNE
 Comp/System RC PRESSURIZER SAFETY
 Procedure No. TX-ISI-302
 Rev/Chng. No. 2 / N/A
 Cal. Block No. PDI-03
 Cal. Block Temp. 71° Comp. Temp. 87°
 Therm S/N TU 2261
 Size 6.0" Sch. 160 / .719 "T"
☐ Ferritic ☒ Austenitic

Data Sheet # 9UT11B
 Page 1 of 3

Cal. Checks	Time
Initial Calib.	1030
Initial Calib. Date	10/12/06
Intermediate	1110
Intermediate	1150
Final Calib.	1231
Final Calib. Date	10/12/06

CRT Div. = 0.24CRT Div. = 0.38Cal. Direction Axial Circ. ☒ Both

Couplant

Scan Area: ⊥ to Weld ☒
|| to Weld ☒

Type: ULTRAGEL II
 Batch: 06225

Search Unit #1

Search Unit #2

Manufacturer: KBA
 Serial No.: 00YH5F Freq.: 2.25Mhz
 Size: 0.5" Shape: ROUND
 Exam Angle: 45°S Model: COMP G
 Measured Angle: 45°
 Wedge Style: MSWQC

Manufacturer: MEGASONICS
 Serial No.: S0240 Freq.: 2.25Mhz
 Size: 2X (.25 X .50) Shape: RECT
 Exam Angle: 60°RL Model: CGD
 Measured Angle: 61°
 Wedge Style: INTRAGRAL

Search Unit Cable

Search Unit Cable

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

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

Instrument Settings

Instrument Settings

Make/Model: KBA / USN 52R
 Serial No.: SAP 102249
 Dis. Delay: 0.000 μ s Range: 2.392
 Prb. Delay: 6.349 μ s Pwidth: FIXED
 M'tl Cal/Vel: .1231 μ s Pulser: SINGLE
 Damping: 1000 Ω Reject: 0%
 Rep. Rate: HIGH Freq.: 2.0 - 8.0
 Filter: FIXED Dual: N/A
 Voltage: FIXED Rectify: FULLWAVE

Make/Model: KBA / USN 52R
 Serial No.: SP 102249
 Dis. Delay: 0.000 μ s Range: 3.801
 Prb. Delay: 7.286 μ s Pwidth: FIXED
 M'tl Cal/Vel: .2349 μ s Pulser: DUAL
 Damping: 1000 Ω Reject: 0%
 Rep. Rate: HIGH Freq.: 2.0 - 8.0
 Filter: FIXED Dual: N/A
 Voltage: FIXED Rectify: FULLWAVE

Reference Sensitivity (Sens.)

Reference Sensitivity (Sens.)

Axial: 14.3 Db Circ. 14.3 DbAxial: 54.8 Db Circ. N/ASDH Sensitivity: N/ASDH Sensitivity: N/AFurther Evaluation Needed? ☐ Yes ☒ No

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
TCX-1-4501-11	1 SIDED		X		45°-32.3 dB
					60°RL°-58.0 dB

Remarks/Reasons for incomplete Scan(s)

FSH: ROMPAS BLOCK (SAP 102363)

75% CODE COVERAGE ACHIEVED

Examiners: WALLACE W. REID Level II Date 10/12/06Examiners: N/A Level N/A Date N/A

Reviewer / Date

James Rayson 10/13/06

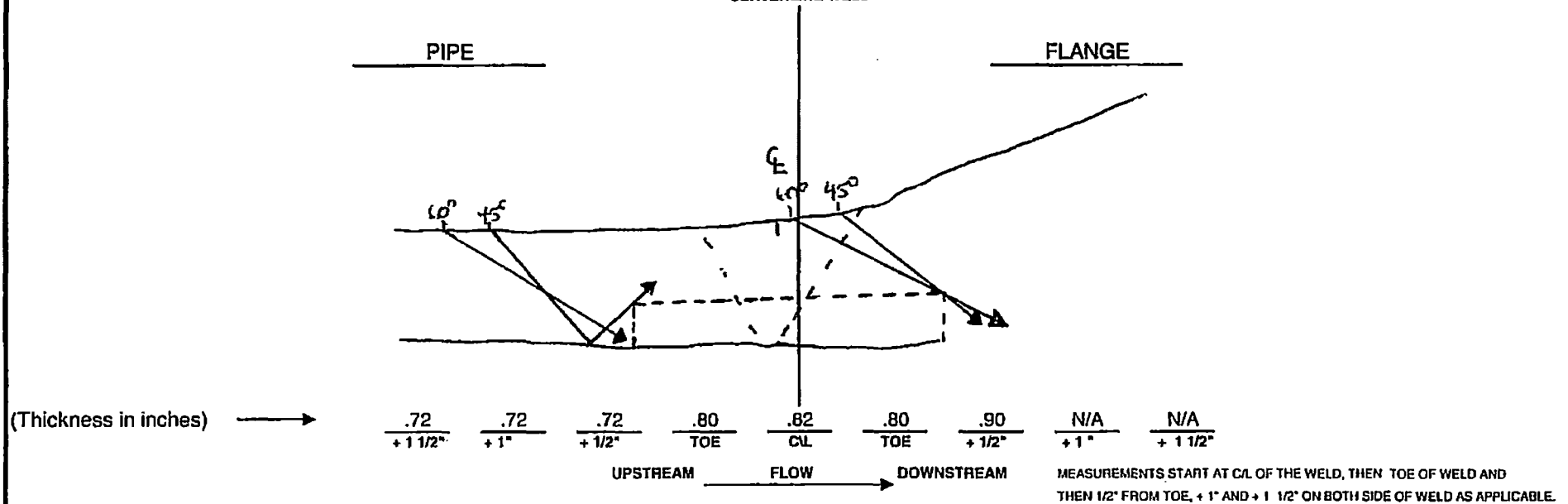
Reviewer / Date

Paul W. Dandridge 10/14/06R. H. H.10/14/06

REPORT NO. 9UT11 STATION COMANCHE PEAK UNIT 2 PAGE 2 OF 3

SYSTEM PRESSURIZER COMPONENT PIPE TO FLANGE DRAWING NO. TCX-1-4501 IDENT NO. 11

DIAMETER 6" WELD LENGTH 21" CROWN WIDTH 1.0" CROWN HEIGHT FLUSH LONG SEAM LOCATION(S) N/A
 CENTERLINE WELD



PROFILE TAKEN AT 0°

SECTION XI	X	RISK INFORMED	X	AUGMENTED	N/A	PREVIOUS DATA REVIEWED	YES	TYPE	UT
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EXAMINER Wallace Reid
WALLACE REID DATE 10/12/06 EXAMINER N/A DATE N/A
REVIEWER James Ragan DATE 10/13/06 REVIEWER Paul M. Brundage DATE 10/14/06

LIMITATION TO EXAMINATION

REPORT NO.: 9UT11B
PAGE 3 OF 3

PLANT COMANCHE PEAK UNIT 2 SKETCH TCX-1-4501
SYST./COMP. RC PRESSURIZER SAFETY PROCEDURE TX-ISI-302, Rev. 2
EXAMINER Wallace W. Reid DATE 10/12/06
WALLACE W. REID

RELATED TO: UT X PT MT VT IDENT. NO.

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

US SCAN = 100%

DS SCAN = 0%

CW SCAN = 100%

CCW SCAN = 100%

$$300\% \div 4 = \underline{75\%}$$

TOTAL COVERAGE ACHIEVED = 75%

DOWN STREAM (DS) SCAN LIMITED BY FLANGE