TENNESSEE VALLEY AUTHORITY	EXAMINATION SUMMARY AND RESOLUTION SHEET	REPORT NUMBER: R-P0150

PROJECT: *WBN* UNIT: *2*	CYCLE *00*		COMPONENT ID: *RCF-G3-4*		
EXAMINATION METHOD			SYSTEM: RCS	ISI DWG NO: *ISI-2068-W-01* Rev. 0	
MT ☐ PT ☐	UT ☑	VT ☐	CONFIGURATION:		CATEGORY
PROCEDURE: *N-UT-33*	REV 11	TC: N/A	*EL* TO *PU*		*B-J*
EXAMINER: Jose Alejandro	EXAMINER: N		EXAMINER: N	EXAMINER: N	
LEVEL: II	LEVEL: A		LEVEL: A	LEVEL: A	

Total coverage calculated to be approximately 75 %

An ultrasonic examination was performed to meet the requirements of ASME Section XI preservice inspection.

A 45° refracted longitudinal wave was calibrated and used for this examination.

Examination was limited on one side due to the pump geometry.

No recordable indications observed.

75% examination volume coverage achieved.

RESOLUTION BY:	REVIEWED BY:	ANII:
Jose Alejandro	Darlene Dudley	DATE: 3/9/09
LEVEL II DATE: 02-16-09	LEVEL: III DATE: 2-24-09	Page: 1 OF 5

ACCESS: FORMS DATABASE R-10/04/01

TENNESSEE VALLEY AUTHORITY	DIGITAL ULTRASONIC CALIBRATION DATA SHEET	REPORT NUMBER R-P0150

PROJECT: WBN UNIT/CYCLE: 2/00
PROCEDURE: N-UT-33 REV: 11 TC: N/A

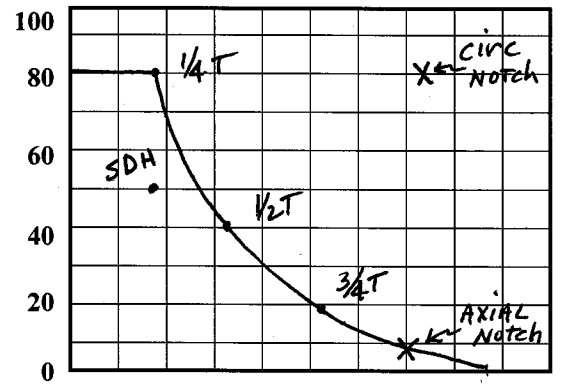
TRANSDUCER
MANUFAC: SwRI MODEL: TVA-1
ELEMENTS: 2 SHAPE: Rectangle
S/N: 2952 SIZE: .5X1.0 FREQ: 1.0 MHz
CONTOUR: N/A FOCUS: N/A
CABLE TYPE: RG174 LENGTH: 6' # CNT: N/A
MODE: ☐ SHEAR ☐ LONG ☒ RL

CALIBRATION DATE: 02-16-09
CALIBRATION BLOCK NO.: WB60 TEMP: 69.4°F
SIMULATOR BLOCK: DSC Block
THERMOMETER S/N: 558271 DUE DATE: 06-24-09
COUPLANT: Ultragel II BATCH: 07225E

ANGLE VERIFICATION
BLOCK TYPE: DSC Block S/N: A03671
NOMINAL ANGLE: 45RL ACTUAL ANGLE: 45RL

INSTRUMENT
MANUFACTURER: Krautkramer DUE DATE: 06-23-09
MODEL NO.: USN60 S/N: E36304

DAC



DISPLAY WIDTH: 6.0 inches

REFLECTOR SCAN DIRECT.	NTC	SDH	REFERENCE SENSITIVITY	MEMORY NUMBER
AXIAL	☒	☐	52.3 dB	45RL-CCSS
CIRC.	☒	☐	71.7 dB	45RL-CCSS

RANGE: 6.0 inches *FREQ: 1.0 MHz
PROBE DELAY: 13.2144 msec *RECTIFY: Fullwave
VELOCITY: .2373 msec DUAL ☒ ON ☐ OFF
DISP DELAY: 0.000 *REJECT: 0 %
*ENERGY: High *DISP. START: IP
*DAMPING: 1K ohms DET: ☒ Peak ☐ Flank
*PRR/PRF: Auto high TCG: ☐ ON ☒ OFF
ANGLE: 45RL deg *PULSER: Dual
ZERO: N/A msec

REF. REFLECTOR: DSC Block SDH GAIN: 49.8 dB
AMPLITUDE: 50 % METAL PATH: 1.06

CALIBRATION TIMES
INITIAL TIME: 0910 FINAL TIME: 1129

VERIFICATION TIMES: 1) 0951 2) 1022 3) 1056 4) N/A 5) N/A 6) N/A 7) N/A 8) N/A 9) N/A

***PDI QUALIFIED INSTRUMENT SETTINGS:**
VERIFY INSTRUMENT SETTINGS AND CALIBRATION SEQUENCE ARE IN ACCORDANCE WITH TABLE 2 OF THE APPLICABLE PDI QUALIFICATION IMPLEMENTATION PROCEDURE!

LINEARITY CHECK

VERTICAL	SIGNAL 1	100	90	80	70	60	50	40	30	20	
	SIGNAL 2	50	45	40	35	30	25	20	15	10	
ATTENUATOR	GAIN	SET	-6 dB		-12dB		SET	+12		SET	+6
	AMP	80%	32 TO 48		16 TO 24		20%	64 TO 96		40%	64 TO 96
			40		20			80			80

COMMENTS	WELD / ITEMS EXAMINED
	RCF-G3-4
	RCF-C3-4

EXAMINER: Jose Alejandro [signature] LVL.: II
EXAMINER: Ellis Reed [signature] LVL.: I
REVIEWER: Darlene Dunlap LVL.: III DATE: 3-24-09

ANII: [signature]
DATE: 3/9/09
PAGE 2 OF 5

ACCESS: FORMS DATABASE 07-25-07

TENNESSEE VALLEY AUTHORITY	MANUAL ULTRASONIC PIPING EXAMINATION DATA SHEET	REPORT NUMBER R.P0150

PROJECT: WBN UNIT/CYCLE 2/00
SYSTEM: RCS
WELD I.D.: RCF-G3-4
CONFIG.: EL TO PU
FLOW

EXAMINATION DATE 02-16-09
START TIME: 1024 END TIME: 1055
EXAM SURFACE ☐ ID ☒ OD
MATERIAL TYPE: ☐ CS ☐ SS ☐ CSCL ☒ CCSS
SURFACE TEMP.: _____ PYRO NO. _____

PROCEDURE: N-UT-33 REV: 11 TC: N/A
Wo REFERENCE: ℄ of weld
Lo REFERENCE: Outside Radius Elbow

EXAMINATION ANGLE	45RL DEG.	~~DEG.~~
AXIAL SCAN SENSITIVITY	~~60.9~~ 58.7 dB	N/A dB
CIRC. SCAN SENSITIVITY	60.9 dB	dB

IND NO.	L (in) FROM REF.			AT MAX AMP			MAX AMP % DAC	EXAM NO. 3-14	NOM. ANG.	NRI	INDICATION INFORMATION: TYPE, DAMPING, ETC.
	L1	L Max	L2	W MAX	MP MAX	D MAX					
								3	45RL	☒	
								5	45RL	☒	
								6	45RL	☒	
										☐	
										☐	
										☐	

REMARKS/LIMITATIONS No ~~exam scans~~ SCAN 4 from downstream side due to pump configuration. Examination performed maintaining 10-25% ID roll. Scanned across the weld.

EXAMINER: Jose Alejandro [signature] LEVEL: II
EXAMINER: Ellis Reed [signature] LEVEL: I
REVIEWED BY: [signature] LEVEL: III DATE: 3-4-09

ANII: [signature]
DATE: 3/9/09
PAGE 3 OF 5

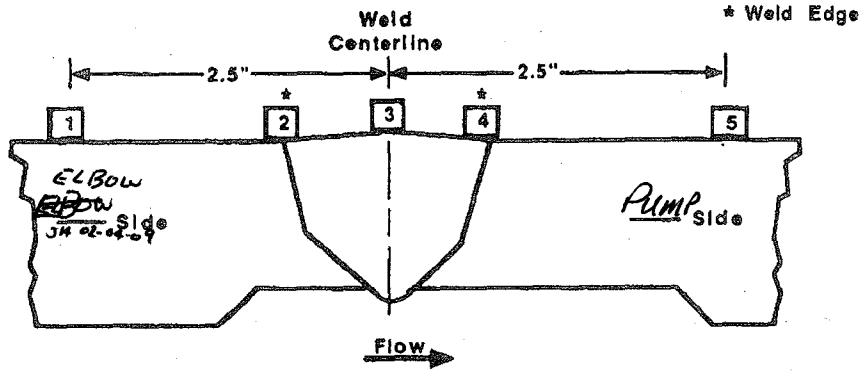
ACCESS: FORMS DATABASE 10/18/01

TVA	WALL THICKNESS PROFILE SHEET	REPORT NO: R-P0150

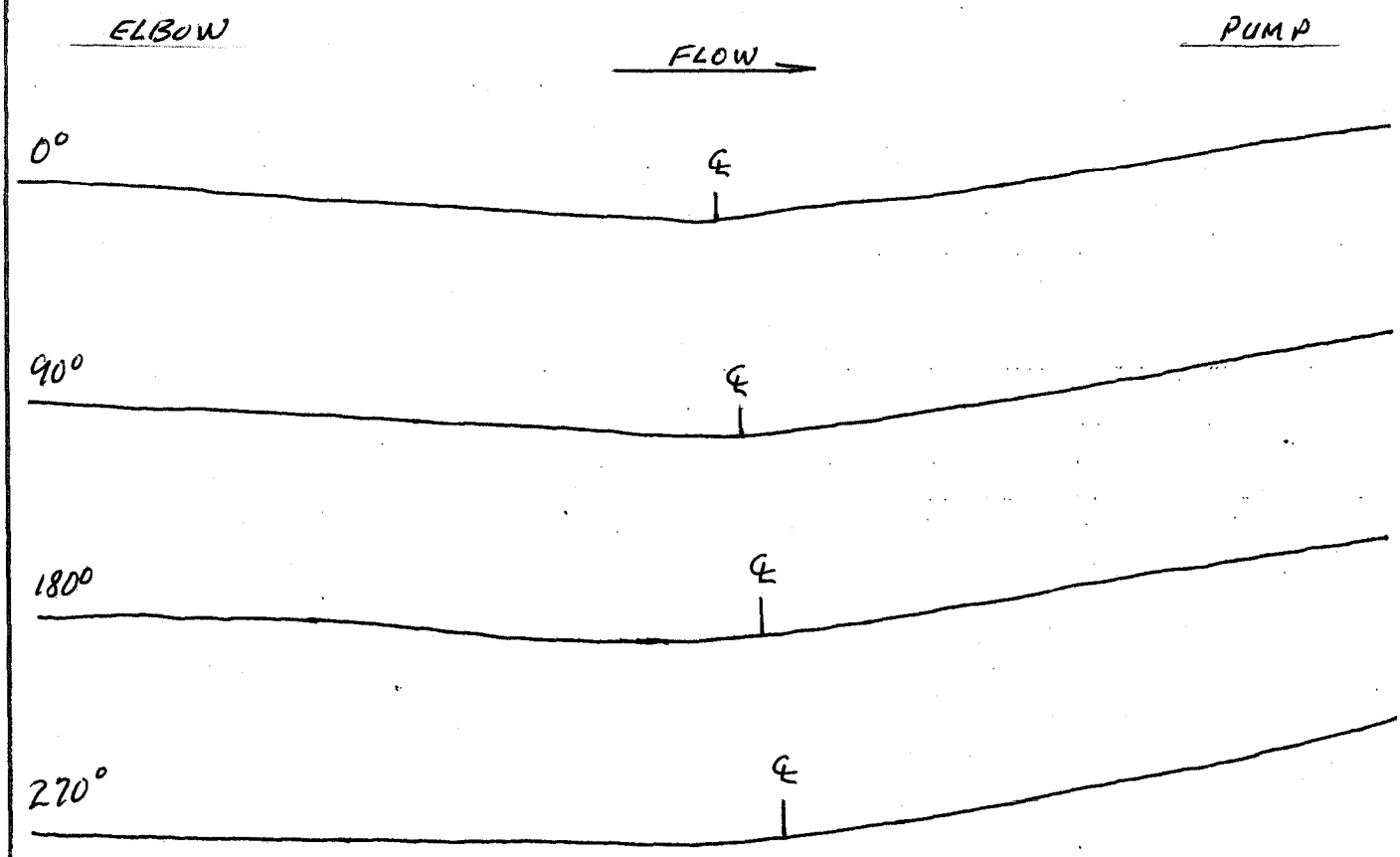
PROJECT: WBN
UNIT: 2
WELD NO: RCF-G3-4
SYSTEM: RCS

Record Thickness Measurements As Indicated, Including Weld Width, Edge-To-Edge At 0°

Position	0°	90°	180°	270°
1	3.34	3.0	3.04	2.95
2	3.14	3.07	3.16	3.19
3	3.52	3.47	3.42	3.50
4	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A



CROWN HEIGHT: FLUSH
CROWN WIDTH: 2.75
DIAMETER: 31.0
WELD LENGTH: 118.25



EXAMINER: Jose Alejandro [signature]
LEVEL: II
DATE: 02-04-09

REVIEWED BY: [signature]
LEVEL: III
DATE: 2-4-09

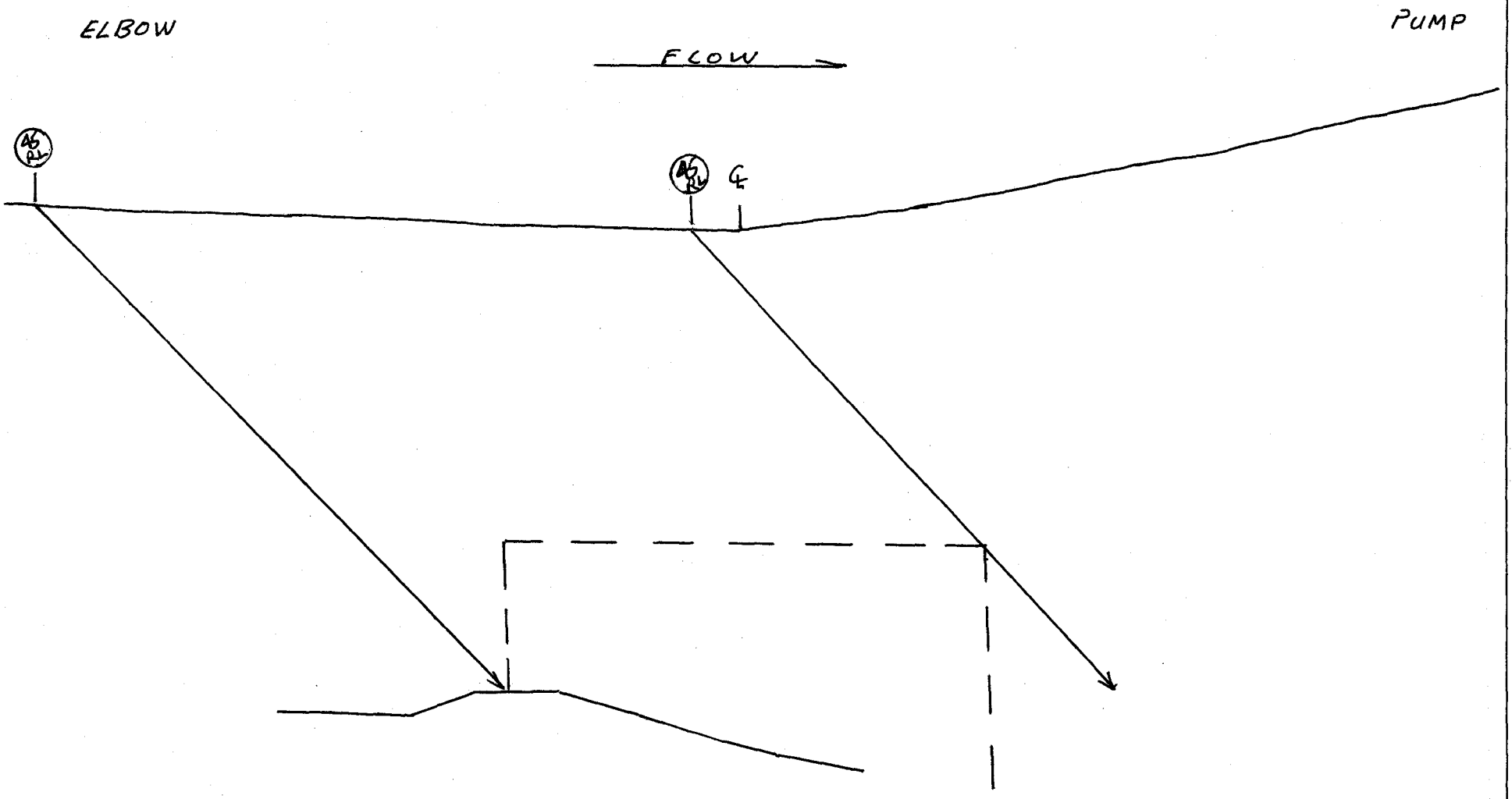
ANII: [signature]
DATE: 3/9/09

PAGE 4 OF 5

TVA 19668 (NP-5-89)

1-108-999-44

TVA Office of Nuclear Power	PROJECT: WBN SYSTEM: RCS UNIT: 2 WELD NO: RCF-G3-4	REPORT NO.: R.P0150



BY: Jose Alejandro LEVEL: II DATE: 02-04-09 PAGE 5 OF 5