GE Nuclear Energy

EXAMINATION SUMMARY SHEET

REPORT NO.: R-R11-019

PROJECT: WNP2 - RFO11
1FR9Z

PROCEDURE: UT-WNP2-208V0 REV: 0 FRR: N/A
N/A
N/A

UT-WNP2-207V0 REV: 0 FRR: N/A
N/A
N/A

N/A REV: N/A FRR: N/A
N/A
N/A

SYSTEM: RECIRCULATION

WELD NO.: 20RRC(6)-8

CONFIGURATION: PIPE TO VALVE

EXAMINER: R. PASZKOWSKI LEVEL: II

EXAMINER: C. VAN HECKE LEVEL: II

EXAMINER: N/A LEVEL: N/A

☐ MT ☐ PT ● UT ☐ VT

WELD TYPE: ● CIRCUMFERENTIAL ☐ LONGITUDINAL ☐ OTHER N/A

DATA SHEET NO.(S): DA-R11-001
DA-R11-002

CAL SHEET NO.(S): CA-R11-001
CA-R11-002
CA-R11-003

During the ultrasonic examination of the above referenced weld, one (1) reportable ID connected planar indication was recorded with the "Smart 2000" system utilizing a 45° shear wave and 60° refracted longitudinal wave search units. This weld was examined for purposes of indication monitoring only. The indication has the following parameters:

Ind. No.	Distance from Zero Reference	Total Length	Thru Wall Dimension	Remaining Ligament	Side of Weld	Type of Reflector	Search Unit
* 1.	-1.00"	3.60"	18.7%	.80"	UPST	CIRC	45°S / 60°RL

* The reflector face appears to be smooth and non-faceted without the presence of axial components, which is not typical of IGSCC type indications. This indication straddles "Lo" reference and starts at approximately 1.0" counterclockwise from top dead center.

Supplemental relooks and thru-wall depth sizing were performed with the "Smart 2000" system utilizing the 60° RL search unit. The thru-wall depth of this reflector was determined by the high angle absolute arrival time tip diffraction method. The length of this indication was determined by measurements taken from the "Smart 2000" 60° RL data with allowances for beam spread. This indication was sized per NUREG 0313 requirements which are more stringent than ASME Section XI. This indication has not exhibited any noticable thru-wall propagation or length since it was sized during the R10 ISI outage in 1995, or previous outages.

The 45° shear also recorded non-relevant indications and beam redirect, along with the above referenced indication, from the upstream side of the weld .

The 60° RL also recorded inside surface geometry, along with the above referenced indication, from the upstream side of the weld.

No examination was performed downstream due to the valve configuration.

Previous data was reviewed prior to this summary.

● EXAM COMPLETE ☐ PARTIALLY EXAMINED (EXPLAIN IN COMMENTS) ☐ EXAM COMPLETE IN COMBINATION WITH DATA SHEETS BELOW

ADDITIONAL DATA SHEETS: N/A

COMPARED TO: ☐ PSI ● ISI REPORT NO.(S): R-R10-001 ● NO CHANGE

EXAMINATION RESULTS: ☐ ACCEPTABLE ● UNACCEPTABLE

NO. OF RECORDABLE INDICATIONS: 1

NO. OF REPORTABLE INDICATIONS: 1

CODE COVERAGE OBTAINED: N/A %

SUMMARY BY	III	4/24/96	UTILITY REVIEW	4-25-96	
	LEVEL	DATE		DATE	
GE REVIEWED BY	III	4-25-96	ANII REVIEW	4/26/96	
	LEVEL	DATE		DATE	

PAGE: 1 OF: 11

FORM UT-08 REV. 9

GE Nuclear Energy

WALL THICKNESS PROFILE SHEET

SITE: WNP UNIT: 2

PROJECT: 1ER9Z - REQ11

REPORT NO.: R-R11-019

SYSTEM: RECIRCULATION

COMPONENT ID NO.: 20RRC(6)-8

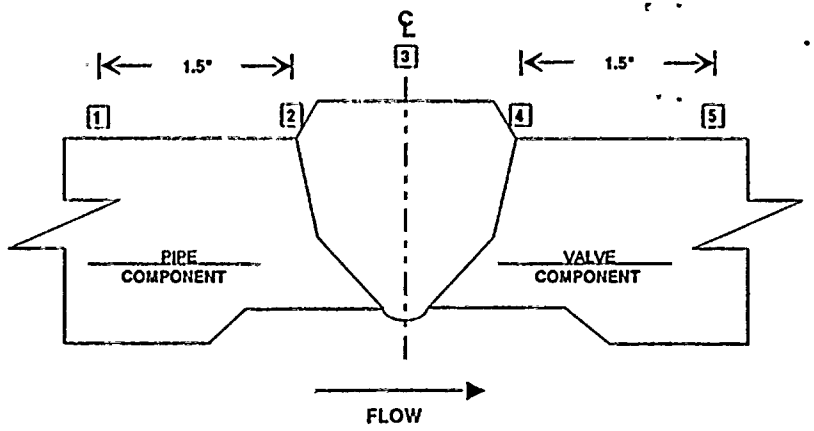
POSITION	0°	90°	180°	270°
1	1.00"	N/A	N/A	N/A
2	.98"	N/A	N/A	N/A
3	1.13"	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A
5	2.06"	N/A	N/A	N/A

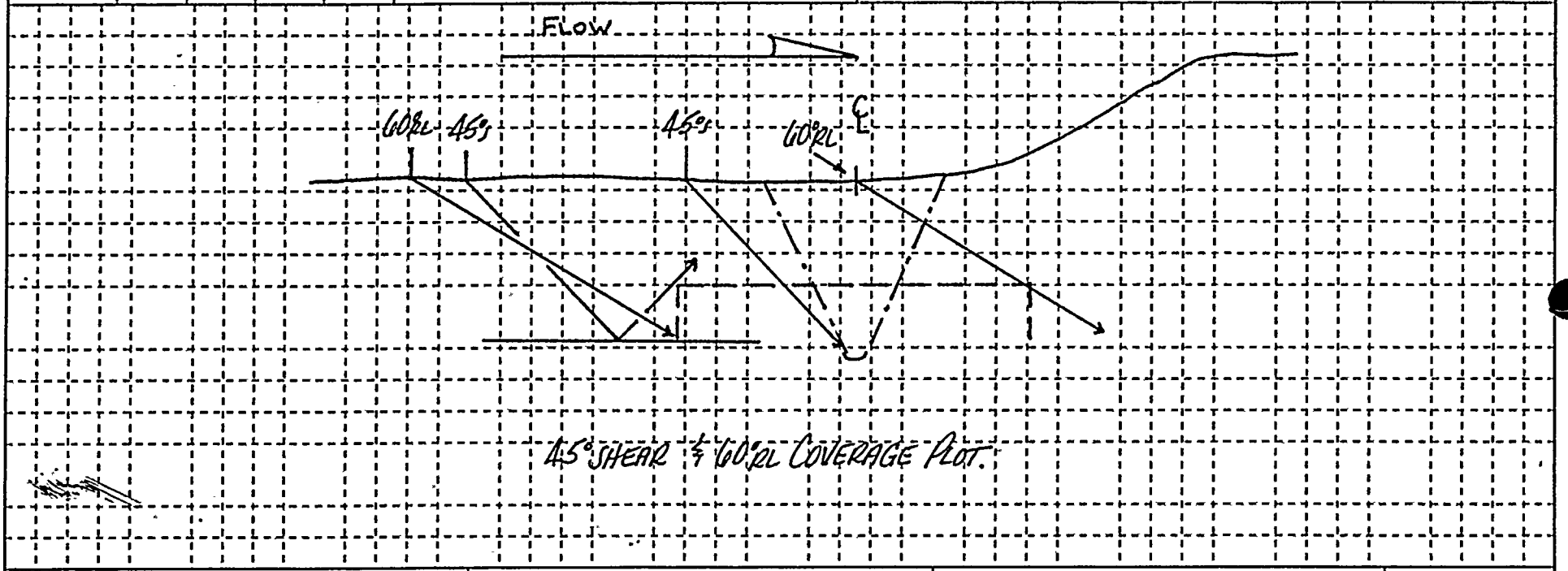
CROWN HEIGHT: FLUSH

CROWN WIDTH: 1.20"

NOM DIAMETER: 20.00"

WELD LENGTH: 63.00"





TAKEN FROM 1992 GE DATA

DRAWN BY	LEVEL	DATE
Donald Wilder	III	4/25/96

GE REVIEWED BY — LEVEL — DATE

UTILITY REVIEW — 4-25-96 DATE

ANII REVIEW — 4/24/96 DATE

FORM UT-01 REV. 4

GE Nuclear Energy

INDICATION PLOT SHEET

SITE: WNP UNIT: 2

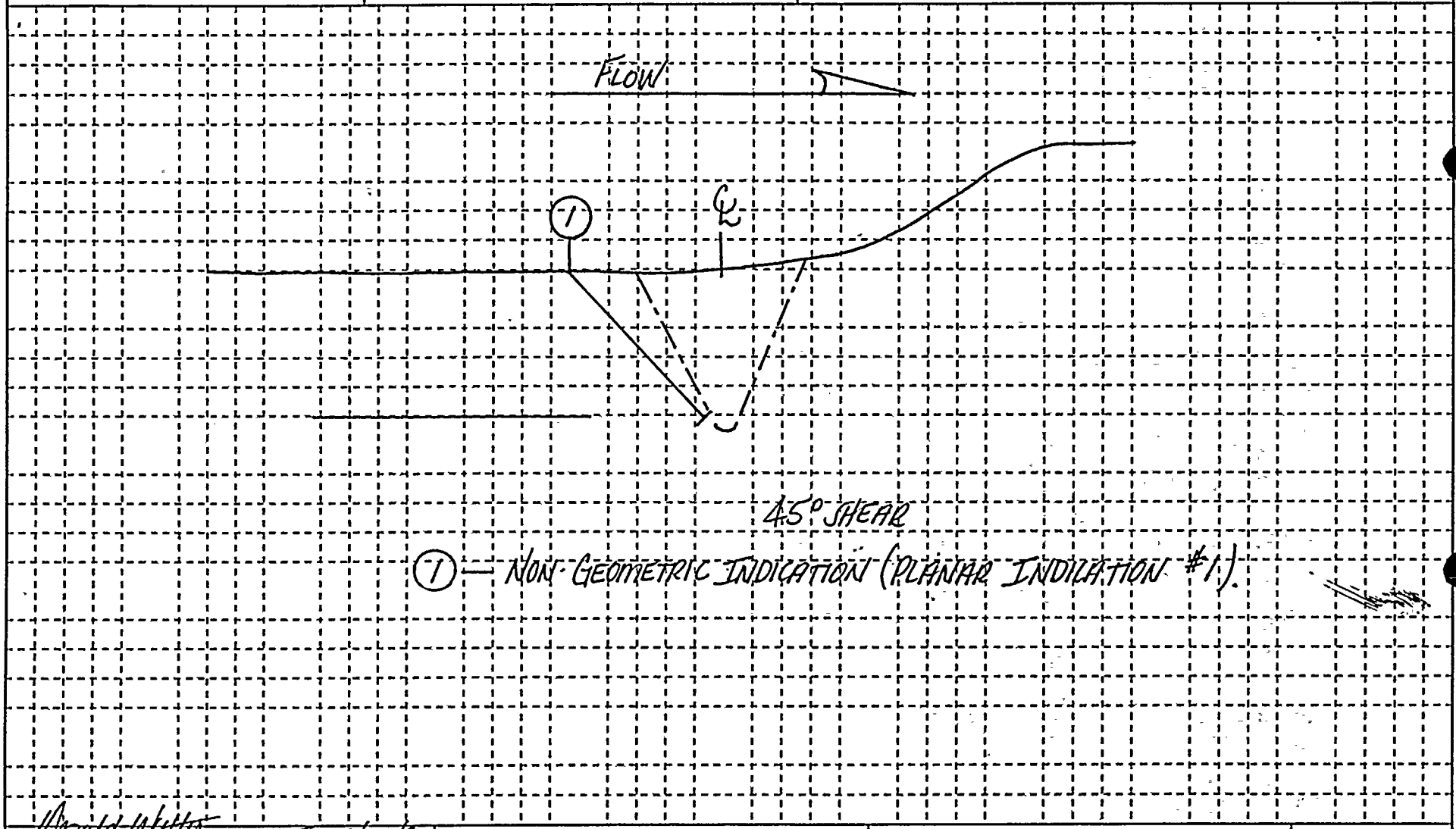
PROJECT: 1FR9Z - REQ11

REPORT NO.: R-R11-019

SYSTEM: RECIRCULATION

COMPONENT ID NO.: 20RRC(6)-8

CONFIGURATION: PIPE FLOW VALVE

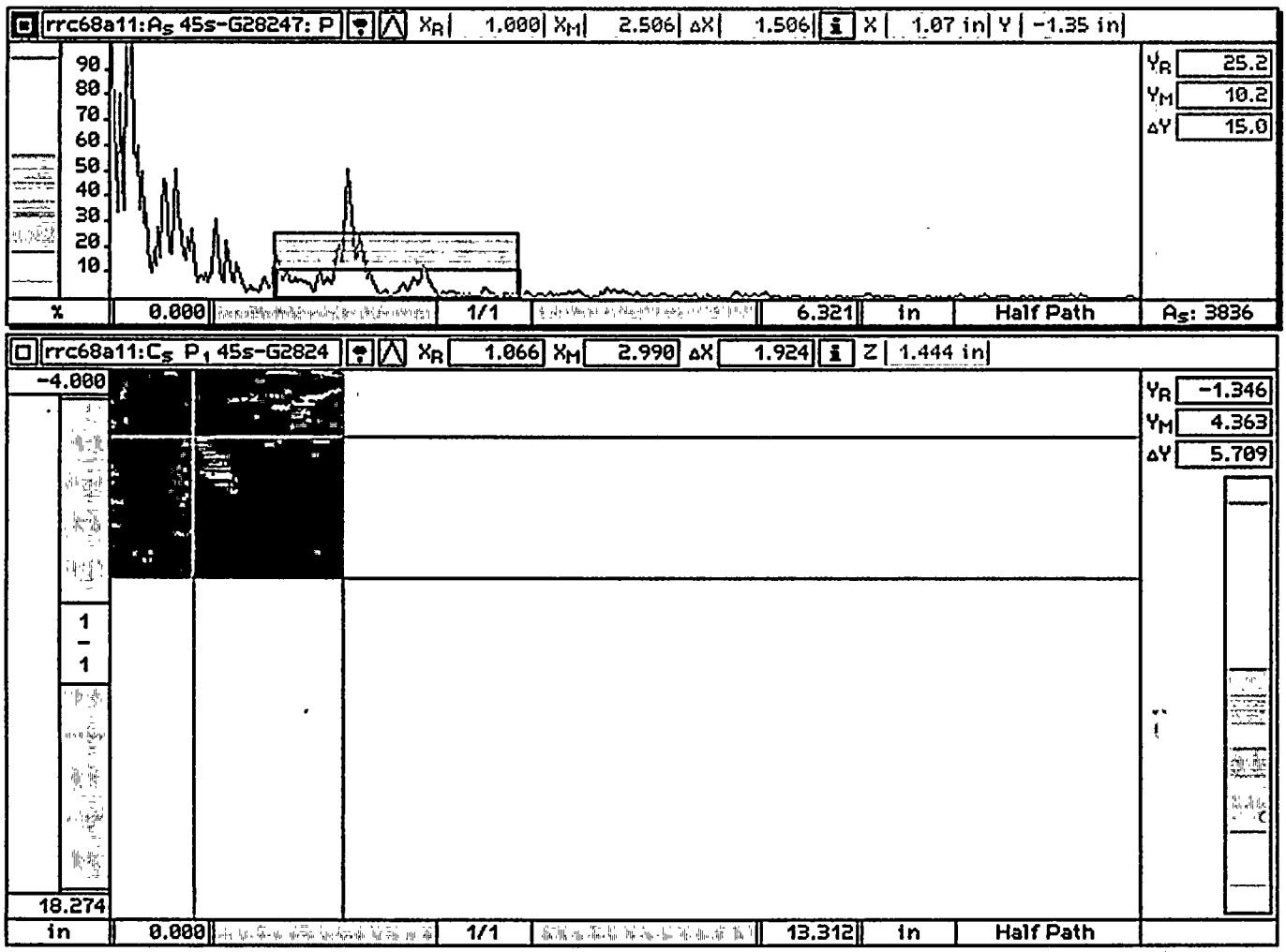


DRAWN BY	III LEVEL	4/25/96 DATE	UTILITY REVIEW	4-25-96 DATE	ANII REVIEW	4/26/96 DATE
GE REVIEWED BY	III LEVEL	4-24-96 DATE				

FORM UT-02 REV. 5

GE Nuclear Energy

ULTRASONIC SCAN DATA PRINT SHEET (AUTOMATED WITH *Smart 2000*)



Non-Geometric Indication (Planar Indication #1)

SITE: WNP UNIT: 2 PROJECT NO.: 1FR9Z REPORT NO.: R-R11-019

WELD NO.: 20RRC(6)-8 SEARCH UNIT: 45°/SHR INDICATION NO.: 1 PAGE: 4 OF: 11

FORM UT-13 REV. 1

GE Nuclear Energy

INDICATION PLOT SHEET

SITE: WNP UNIT: 2

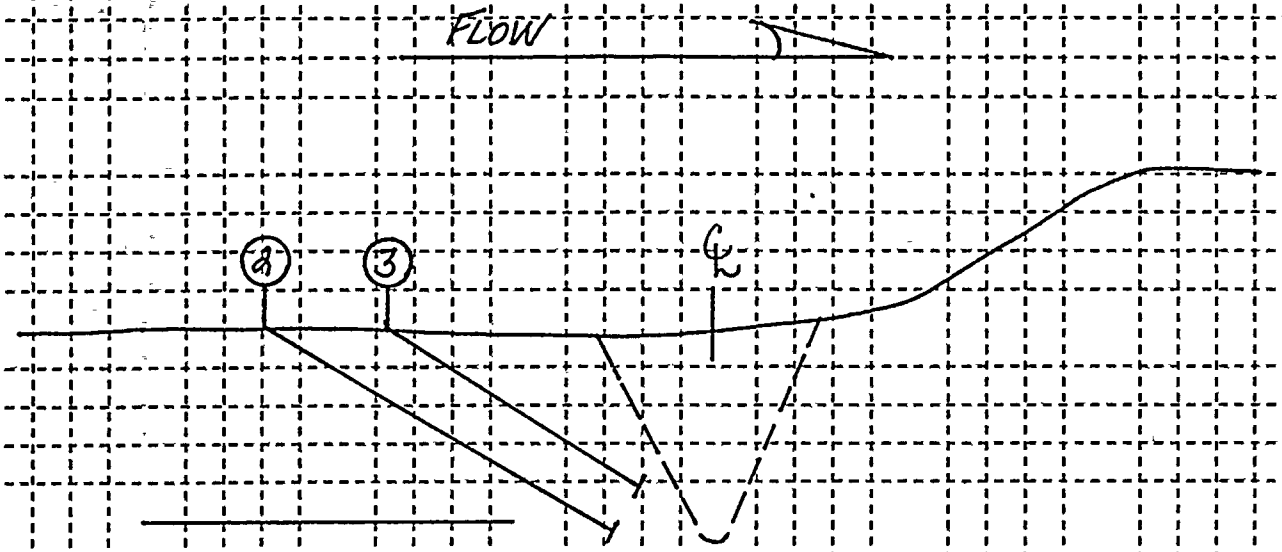
PROJECT: 1ER9Z - REQ11

REPORT NO.: R-R11-019

SYSTEM: RECIRCULATION

COMPONENT ID NO.: 20RRC(6)-8

CONFIGURATION: PIPE FLOW VALVE



(2) — NON-GEOMETRIC INDICATION (PLANAR INDICATION #1 - BASE REFLECTOR).

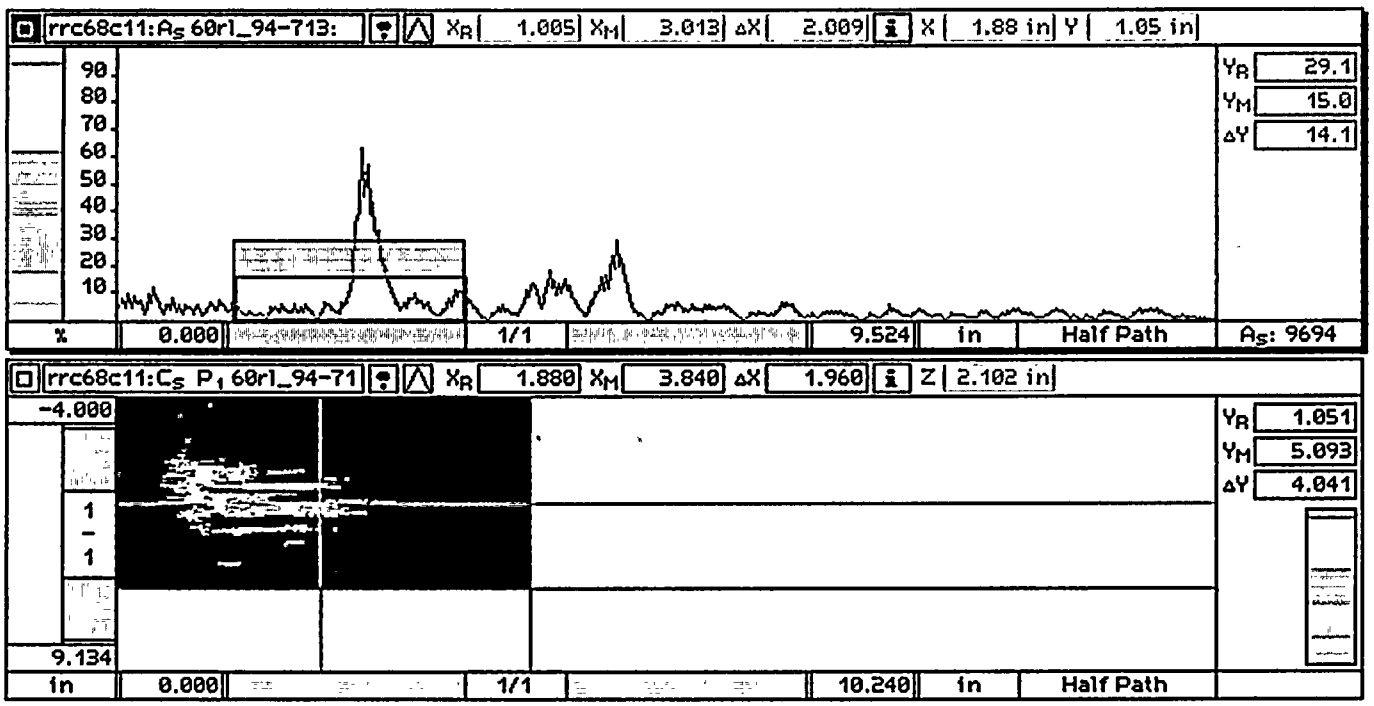
(3) — NON-GEOMETRIC INDICATION (PLANAR INDICATION #1 - TIP REFLECTOR).

DRAWN BY	III LEVEL	4/25/96 DATE				
GE REVIEWED BY	III LEVEL	4-25-96 DATE	UTILITY REVIEW	4-25-96 DATE	ANII REVIEW	4/26/96 DATE

FORM UT-02 REV. 5

GE Nuclear Energy

ULTRASONIC SCAN DATA PRINT SHEET (AUTOMATED WITH *Smart 2000*)



Non-Geometric Indication (Planar Indication #1 Base Reflector)

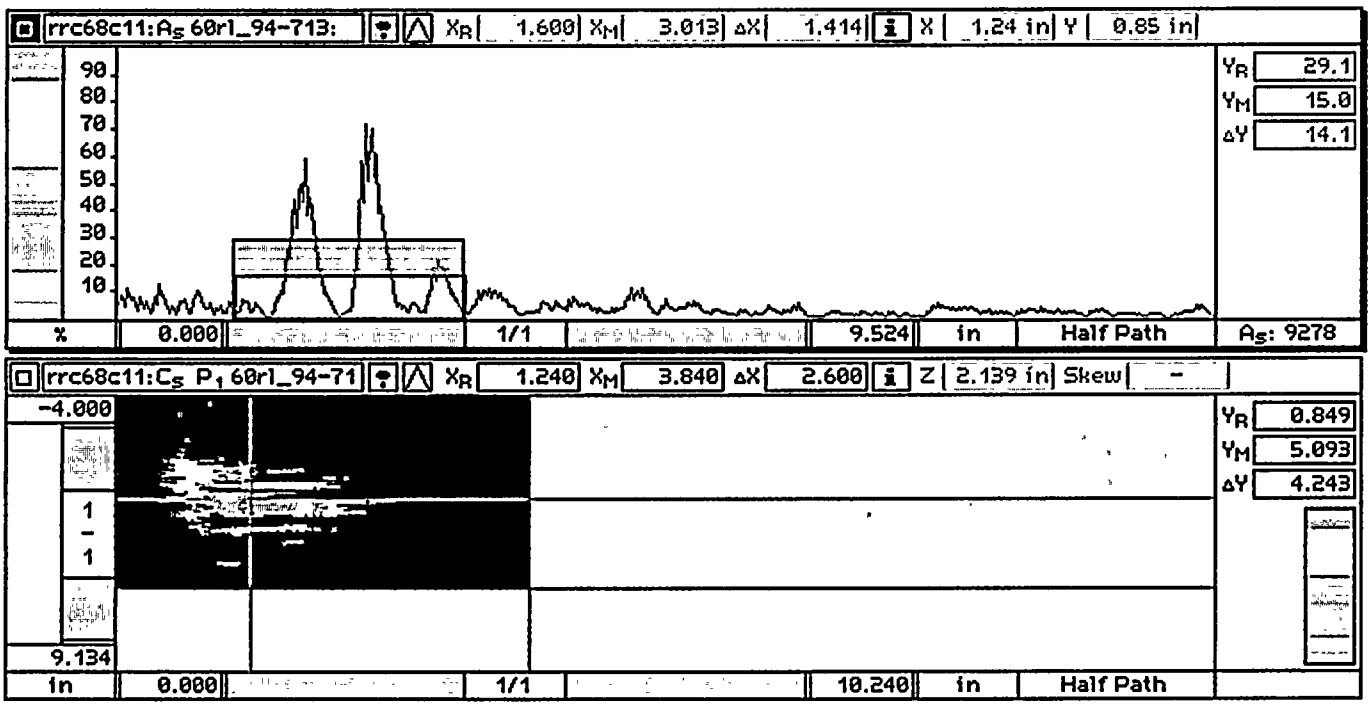
SITE: WNP UNIT: 2 PROJECT NO.: 1ER9Z REPORT NO.: R-R11-019

WELD NO.: 20RRC(6)-8 SEARCH UNIT: 60°/RL INDICATION NO.: 2 PAGE: 6 OF: 11

FORM UT-13 REV. 1

GE Nuclear Energy

ULTRASONIC SCAN DATA PRINT SHEET (AUTOMATED WITH *Smart 2000*)



Non-Geometric Indication (Planar Indication #1 Tip Reflector)

SITE: WNP UNIT: 2 PROJECT NO.: 1ER9Z REPORT NO.: R-R11-019

WELD NO.: 20RRC(6)-8 SEARCH UNIT: 60°/RL INDICATION NO.: 3 PAGE: 7 OF: 11

FORM UT-13 REV. 1

GE Nuclear Energy

ULTRASONIC EXAMINATION DATA SHEET
(AUTOMATED WITH *Smart 2000*)

SITE: WNP | PROCEDURE NO.: UT-WNP2-208V0 | REPORT NO.: R-R11-019
UNIT: 2 | REVISION NO.: 0 | DATA SHEET NO.: DA-R11-001
PROJECT NO.: 1FR9Z - RFO11 | FRR NO.: N/A | CALIBRATION SHEET NO.: CA-R11-001

SYSTEM: RECIRCULATION | EXAM SURFACE TEMP: 90 °F | COUPLANT: ULTRAGEL II | EXAM START: 14:50
WELD ID: 20RRC(6)-8 | THERMOMETER S/N: 145989 | BATCH NO.: 094041 | EXAM END: 21:50
SEARCH UNIT: 45° / SHR | EXAMINATION SURFACE: OD | COMPONENT: PIPE FLOW VALVE

SCAN: A11 | SCAN DIRECTION: AXUP | GAIN(dB): 32.0
DISK/SIDE: D-01/A | FILENAME(S): RRC68A11 N/A
EXAMINATION RESULTS:
- ☐ NO RECORDED INDICATIONS
- ☐ ROOT GEOMETRY
- ☐ COUNTERBORE GEOMETRY
- ☑ NON-RELEVANT INDICATIONS
- ☐ ACOUSTIC INTERFACE
- ☐ INSIDE SURFACE GEOMETRY
- ☑ NON-GEOMETRIC INDICATIONS
- ☑ OTHER: BEAM REDIRECT

COMMENTS: Scan performed at gain level below recommended scanning sensitivity in order to maintain a 10-30% average ID noise level.

SCAN: A12 | SCAN DIRECTION: AXUP | GAIN(dB): 30.0
DISK/SIDE: D-01/A | FILENAME(S): RRC68A12 N/A
EXAMINATION RESULTS:
- ☐ NO RECORDED INDICATIONS
- ☐ ROOT GEOMETRY
- ☐ COUNTERBORE GEOMETRY
- ☑ NON-RELEVANT INDICATIONS
- ☐ ACOUSTIC INTERFACE
- ☐ INSIDE SURFACE GEOMETRY
- ☑ NON-GEOMETRIC INDICATIONS
- ☑ OTHER: BEAM REDIRECT

COMMENTS: Scan performed at gain level below recommended scanning sensitivity in order to maintain a 10-30% average ID noise level.

SCAN: A50 | SCAN DIRECTION: CWUP | GAIN(dB): 32.0
DISK/SIDE: D-01/A | FILENAME(S): RRC68A50 N/A
EXAMINATION RESULTS:
- ☐ NO RECORDED INDICATIONS
- ☐ ROOT GEOMETRY
- ☐ COUNTERBORE GEOMETRY
- ☑ NON-RELEVANT INDICATIONS
- ☐ ACOUSTIC INTERFACE
- ☐ INSIDE SURFACE GEOMETRY
- ☐ NON-GEOMETRIC INDICATIONS
- ☐ OTHER: N/A

COMMENTS: Scan performed at gain level below recommended scanning sensitivity in order to maintain a 10-30% average ID noise level.

SCAN: A51 | SCAN DIRECTION: CWUP | GAIN(dB): 32.0
DISK/SIDE: D-01/A | FILENAME(S): RRC68A51 N/A
EXAMINATION RESULTS:
- ☐ NO RECORDED INDICATIONS
- ☐ ROOT GEOMETRY
- ☐ COUNTERBORE GEOMETRY
- ☑ NON-RELEVANT INDICATIONS
- ☐ ACOUSTIC INTERFACE
- ☐ INSIDE SURFACE GEOMETRY
- ☐ NON-GEOMETRIC INDICATIONS
- ☐ OTHER: N/A

COMMENTS: Scan performed at gain level below recommended scanning sensitivity in order to maintain a 10-30% average ID noise level.

SCAN: A70 | SCAN DIRECTION: CCUP | GAIN(dB): 32.0
DISK/SIDE: D-01/A | FILENAME(S): RRC68A70 N/A
EXAMINATION RESULTS:
- ☐ NO RECORDED INDICATIONS
- ☐ ROOT GEOMETRY
- ☐ COUNTERBORE GEOMETRY
- ☑ NON-RELEVANT INDICATIONS
- ☐ ACOUSTIC INTERFACE
- ☐ INSIDE SURFACE GEOMETRY
- ☐ NON-GEOMETRIC INDICATIONS
- ☐ OTHER: N/A

COMMENTS: Scan performed at gain level below recommended scanning sensitivity in order to maintain a 10-30% average ID noise level.

SCAN: A71 | SCAN DIRECTION: CCUP | GAIN(dB): 30.0
DISK/SIDE: D-01/A | FILENAME(S): RRC68A71 N/A
EXAMINATION RESULTS:
- ☐ NO RECORDED INDICATIONS
- ☐ ROOT GEOMETRY
- ☐ COUNTERBORE GEOMETRY
- ☑ NON-RELEVANT INDICATIONS
- ☐ ACOUSTIC INTERFACE
- ☐ INSIDE SURFACE GEOMETRY
- ☐ NON-GEOMETRIC INDICATIONS
- ☐ OTHER: N/A

COMMENTS: Scan performed at gain level below recommended scanning sensitivity in order to maintain a 10-30% average ID noise level.

REMARKS: No examination was performed downstream due to the valve configuration. Examination performed for purposes of indication monitoring only.

R. D. Rogowski	II	4-22-96		4-25-96	
EXAMINER	LEVEL	DATE	UTILITY REVIEW	DATE	
	III	4/25/96		4/26/96	PAGE: 8 OF: 11
GE REVIEWED BY	LEVEL	DATE	ANII REVIEW	DATE	

FORM UT-07 REV. 6

GE Nuclear Energy

ULTRASONIC EXAMINATION DATA SHEET (AUTOMATED WITH *Smart 2000*)

SITE: WNP
UNIT: 2
PROJECT NO.: 1FR9Z - RFO11

PROCEDURE NO.: UT-WNP2-207V0/208V0
REVISION NO.: 0
FRR NO.: N/A

REPORT NO.: R-R11-019
DATA SHEET NO.: DA-R11-002
CALIBRATION SHEET NO.: CA-R11-002, 003

SYSTEM: RECIRCULATION | EXAM SURFACE TEMP: 90 °F | COUPLANT: ULTRAGEL II | EXAM START: 23:45
WELD ID: 20RRC(6)-8 | THERMOMETER S/N: 145989 | BATCH NO.: 094041 | EXAM END: 02:27
SEARCH UNIT: 60° / RL | EXAMINATION SURFACE: OD | COMPONENT: PIPE FLOW VALVE

SCAN: C10 SCAN DIRECTION: LKDN GAIN(dB): 42.0
DISK/SIDE: D-01/A FILENAME(S): RRC68C10, N/A
EXAMINATION RESULTS:
- [ ] NO RECORDED INDICATIONS
- [ ] ROOT GEOMETRY
- [ ] COUNTERBORE GEOMETRY
- [x] NON-RELEVANT INDICATIONS
- [ ] ACOUSTIC INTERFACE
- [ ] INSIDE SURFACE GEOMETRY
- [x] NON-GEOMETRIC INDICATIONS
- [x] OTHER: SHEAR COMPONENT

COMMENTS: N/A

SCAN: C11 SCAN DIRECTION: LKDN GAIN(dB): 36.0
DISK/SIDE: D-01/A FILENAME(S): RRC68C11, N/A
EXAMINATION RESULTS:
- [ ] NO RECORDED INDICATIONS
- [ ] ROOT GEOMETRY
- [ ] COUNTERBORE GEOMETRY
- [x] NON-RELEVANT INDICATIONS
- [ ] ACOUSTIC INTERFACE
- [ ] INSIDE SURFACE GEOMETRY
- [x] NON-GEOMETRIC INDICATIONS
- [x] OTHER: SHEAR COMPONENT

COMMENTS: Scan performed at gain level below recommended scanning sensitivity in order to maintain a 10-30% average ID noise level.

SCAN: N/A SCAN DIRECTION: N/A GAIN(dB): N/A
DISK/SIDE: N/A FILENAME(S): N/A
EXAMINATION RESULTS:
- [ ] NO RECORDED INDICATIONS
- [ ] ROOT GEOMETRY
- [ ] COUNTERBORE GEOMETRY
- [ ] NON-RELEVANT INDICATIONS
- [ ] ACOUSTIC INTERFACE
- [ ] INSIDE SURFACE GEOMETRY
- [ ] NON-GEOMETRIC INDICATIONS
- [ ] OTHER: N/A

COMMENTS: N/A

SCAN: N/A SCAN DIRECTION: N/A GAIN(dB): N/A
DISK/SIDE: N/A FILENAME(S): N/A
EXAMINATION RESULTS:
- [ ] NO RECORDED INDICATIONS
- [ ] ROOT GEOMETRY
- [ ] COUNTERBORE GEOMETRY
- [ ] NON-RELEVANT INDICATIONS
- [ ] ACOUSTIC INTERFACE
- [ ] INSIDE SURFACE GEOMETRY
- [ ] NON-GEOMETRIC INDICATIONS
- [ ] OTHER: N/A

COMMENTS: N/A

SCAN: N/A SCAN DIRECTION: N/A GAIN(dB): N/A
DISK/SIDE: N/A FILENAME(S): N/A
EXAMINATION RESULTS:
- [ ] NO RECORDED INDICATIONS
- [ ] ROOT GEOMETRY
- [ ] COUNTERBORE GEOMETRY
- [ ] NON-RELEVANT INDICATIONS
- [ ] ACOUSTIC INTERFACE
- [ ] INSIDE SURFACE GEOMETRY
- [ ] NON-GEOMETRIC INDICATIONS
- [ ] OTHER: N/A

COMMENTS: N/A

SCAN: N/A SCAN DIRECTION: N/A GAIN(dB): N/A
DISK/SIDE: N/A FILENAME(S): N/A
EXAMINATION RESULTS:
- [ ] NO RECORDED INDICATIONS
- [ ] ROOT GEOMETRY
- [ ] COUNTERBORE GEOMETRY
- [ ] NON-RELEVANT INDICATIONS
- [ ] ACOUSTIC INTERFACE
- [ ] INSIDE SURFACE GEOMETRY
- [ ] NON-GEOMETRIC INDICATIONS
- [ ] OTHER: N/A

COMMENTS: N/A

REMARKS: Scans C10 and C11 inadvertently zeroed .50" upstream of weld centerline.
No examination was performed downstream due to the valve configuration.
Examination performed for purposes of indication monitoring only.

Robert Paszkowski (signature)	II	4-22-96	(signature)	4-25-96
EXAMINER	LEVEL	DATE	UTILITY REVIEW	DATE
(signature)	III	4/25/96	(signature)	4/26/96
GE REVIEWED BY	LEVEL	DATE	ANII REVIEW	DATE

FORM UT-07 REV. 6

GE Nuclear Energy

ULTRASONIC SCAN PARAMETER SHEET
(AUTOMATED WITH *Smart 2000*)

SITE: WNP | PROCEDURE NO.: UT-WNP2-208V0 | REPORT NO.: R-R11-019
UNIT: 2 | REVISION NO.: 0 | DATA SHEET NO.: DA-R11-001
PROJECT NO.: 1ER9Z - REO11 | FRR NO.: N/A | CALIBRATION SHEET NO.: CA-R11-001

SYSTEM: RECIRCULATION WELD ID: 20RRC(6)-8 MOTOR STEPS: CIR: 485.01 / in TRA: 500.00 / in
WELD REFERENCE, (GE-ADM-1005): Lo: TOP DEAD CENTER Wo: WELD CENTERLINE SEARCH UNIT: 45° / SHR

EXAMINATION SETUP

COMPONENT DIA: 20.0" WELD LENGTH: 63.0" TRACK DIA: 24.0" ARM LENGTH: 12.0" TRACK LOCATION: 9.0" UPST OF WELD CENTERLINE

SCAN PARAMETERS

SCAN: A11 SCAN DIRECTION: AXUP SKEW: 0°

	SCANNING "X":	INDEXING "Y":	
START:	0"	-4.0"	SCANNER ZERO POSITIONS:
SIZE:	3.00"	8.0"	
OFFSET:	0"	-4.0"	CIR: 4.0" CCW FROM TOP DEAD CENTER
RESOLUTION:	.0260"	.0804"	TRA: WELD CENTERLINE
MOTOR DIR.:	INVERSE	NORMAL	ROT: LOOKING DOWNSTREAM

SCAN: A12 SCAN DIRECTION: AXUP SKEW: 0±10°

	SCANNING "X":	INDEXING "Y":	
START:	0"	0"	SCANNER ZERO POSITIONS:
SIZE:	3.00"	63.50"	
OFFSET:	0"	0"	CIR: TOP DEAD CENTER
RESOLUTION:	.0247"	.1814"	TRA: WELD CENTERLINE
MOTOR DIR.:	INVERSE	NORMAL	ROT: LOOKING DOWNSTREAM

SCAN: A50 SCAN DIRECTION: CWUP SKEW: 50±10°

	SCANNING "X":	INDEXING "Y":	
START:	0"	0"	SCANNER ZERO POSITIONS:
SIZE:	63.50"	2.35"	
OFFSET:	0"	0"	CIR: TOP DEAD CENTER
RESOLUTION:	.0350"	.1880"	TRA: WELD CENTERLINE
MOTOR DIR.:	NORMAL	INVERSE	ROT: LOOKING DOWNSTREAM

SCAN: A51 SCAN DIRECTION: CWUP SKEW: 90°

	SCANNING "X":	INDEXING "Y":	
START:	0"	0"	SCANNER ZERO POSITIONS:
SIZE:	63.50"	2.35"	
OFFSET:	0"	0"	CIR: TOP DEAD CENTER
RESOLUTION:	.0350"	.1880"	TRA: WELD CENTERLINE
MOTOR DIR.:	NORMAL	INVERSE	ROT: LOOKING DOWNSTREAM

SCAN: A70 SCAN DIRECTION: CCUP SKEW: -50±10°

	SCANNING "X":	INDEXING "Y":	
START:	0"	0"	SCANNER ZERO POSITIONS:
SIZE:	63.50"	2.35"	
OFFSET:	0"	0"	CIR: TOP DEAD CENTER
RESOLUTION:	.0350"	.1880"	TRA: WELD CENTERLINE
MOTOR DIR.:	NORMAL	INVERSE	ROT: LOOKING DOWNSTREAM

SCAN: A71 SCAN DIRECTION: CCUP SKEW: 90±10°

	SCANNING "X":	INDEXING "Y":	
START:	0"	0"	SCANNER ZERO POSITIONS:
SIZE:	64.20"	2.50"	
OFFSET:	0"	0"	CIR: TOP DEAD CENTER
RESOLUTION:	.0350"	.1880"	TRA: WELD CENTERLINE
MOTOR DIR.:	NORMAL	INVERSE	ROT: LOOKING DOWNSTREAM

REMARKS: No examination was performed downstream due to the valve configuration.
Examination performed for purposes of indication monitoring only.

Robert Pasakowski	II	4-22-96	[signature]	4-25-96	
EXAMINER	LEVEL	DATE	UTILITY REVIEW	DATE	
Donald Walters	III	4/25/96	[signature]	4/26/96	PAGE: 10 OF: 11
GE REVIEWED BY	LEVEL	DATE	ANII REVIEW	DATE	

FORM UT-08 REV. 6

GE Nuclear Energy

ULTRASONIC SCAN PARAMETER SHEET
(AUTOMATED WITH *Smart 2000*)

SITE: WNP
UNIT: 2
PROJECT NO.: 1FR9Z - RFO11

PROCEDURE NO.: UT-WNP2-207V0/208V0
REVISION NO.: 0
FRR NO.: N/A

REPORT NO.: R-R11-019
DATA SHEET NO.: DA-R11-002
CALIBRATION SHEET NO.: CA-R11-002, 003

SYSTEM: RECIRCULATION WELD ID: 20RRC(6)-8 MOTOR STEPS: CIR: 485.01 / in TRA: 500.00 / in
WELD REFERENCE, (GE-ADM-1005): Lo: TOP DEAD CENTER Wo: TOP DEAD CENTER SEARCH UNIT: 60° / RL

EXAMINATION SETUP

COMPONENT DIA: 20.0" WELD LENGTH: 63.0" TRACK DIA: 24.0" ARM LENGTH: 12.0" TRACK LOCATION: 9.0" UPST OF WELD CENTERLINE

SCAN PARAMETERS

SCAN: C10 SCAN DIRECTION: LKDN SKEW: 0±10°

	SCANNING "X":	INDEXING "Y":	SCANNER ZERO POSITIONS:
START:	0"	0"	
SIZE:	3.80"	63.50"	
OFFSET:	0"	0"	CIR: TOP DEAD CENTER
RESOLUTION:	.0360"	.1402"	TRA: WELD CENTERLINE
MOTOR DIR.:	INVERSE	NORMAL	ROT: LOOKING DOWNSTREAM

SCAN: C11 SCAN DIRECTION: LKDN SKEW: 0°

	SCANNING "X":	INDEXING "Y":	SCANNER ZERO POSITIONS:
START:	0"	-4.00"	
SIZE:	3.80"	9.00"	
OFFSET:	0"	-4.00"	CIR: 4.00" CCW OF TOP DEAD CENTER
RESOLUTION:	.0200"	.1010"	TRA: WELD CENTERLINE
MOTOR DIR.:	INVERSE	NORMAL	ROT: LOOKING DOWNSTREAM

SCAN: N/A SCAN DIRECTION: N/A SKEW: N/A

	SCANNING "X":	INDEXING "Y":	SCANNER ZERO POSITIONS:
START:	N/A	N/A	
SIZE:	N/A	N/A	
OFFSET:	N/A	N/A	CIR: N/A
RESOLUTION:	N/A	N/A	TRA: N/A
MOTOR DIR.:	N/A	N/A	ROT: N/A

SCAN: N/A SCAN DIRECTION: N/A SKEW: N/A

	SCANNING "X":	INDEXING "Y":	SCANNER ZERO POSITIONS:
START:	N/A	N/A	
SIZE:	N/A	N/A	
OFFSET:	N/A	N/A	CIR: N/A
RESOLUTION:	N/A	N/A	TRA: N/A
MOTOR DIR.:	N/A	N/A	ROT: N/A

SCAN: N/A SCAN DIRECTION: N/A SKEW: N/A

	SCANNING "X":	INDEXING "Y":	SCANNER ZERO POSITIONS:
START:	N/A	N/A	
SIZE:	N/A	N/A	
OFFSET:	N/A	N/A	CIR: N/A
RESOLUTION:	N/A	N/A	TRA: N/A
MOTOR DIR.:	N/A	N/A	ROT: N/A

SCAN: N/A SCAN DIRECTION: N/A SKEW: N/A

	SCANNING "X":	INDEXING "Y":	SCANNER ZERO POSITIONS:
START:	N/A	N/A	
SIZE:	N/A	N/A	
OFFSET:	N/A	N/A	CIR: N/A
RESOLUTION:	N/A	N/A	TRA: N/A
MOTOR DIR.:	N/A	N/A	ROT: N/A

REMARKS: No examination was performed downstream due to the valve configuration.
Examination performed for purposes of indication monitoring only.

Robert Paszkowski	II	4-22-96	[signature]	4-25-96
EXAMINER	LEVEL	DATE	UTILITY REVIEW	DATE
[signature]	III	4/25/96	[signature]	4/26/96
GE REVIEWED BY	LEVEL	DATE	ANII REVIEW	DATE

PAGE: 11 OF: 11

FORM UT-08 REV. 6

GE Nuclear Energy

ULTRASONIC CALIBRATION DATA SHEET
(AUTOMATED WITH *Smart 2000*)

SITE: WNP UNIT: 2

CALIBRATION SHEET NO.: CA-R11-001

PROJECT NO.: 1FR9Z - RFO11

LINEARITY SHEET NO.: L-005

PROCEDURE NO.: UT-WNP2-208V0 REVISION: 0 FRR: N/A

Instrument: TECRAD / TOMOSCAN (Manufacturer / Model) TTS10092113 (System Serial No.)

Search Unit: KBA (Manufacturer) G28247 (Serial No.) .500" (Size) 2.25 MHz (Freq.) 45° / SHR (Angle/Mode) 45" (Incident to wedge front)

Cable: RG-58, RG-58, RG-174 (Type) 250', 25', 3' (Length) 4 BNC, Micro Dot (No. of Connectors)

Calibration Standard: UT-09 (Serial No.) SS (Material) 1.031" (Nominal Thickness) 1.158" (Measured Thickness) 76 °F (Temp.)

Thermometer: 145989 (Serial No.)

Couplant: ULTRAGEL II (Type) 094041 (Batch No.)

CALIBRATION

ORIENTATION:	½T SDH	CIRC / AXIAL
TYPE:	.2/8V / 6/8V / 10/8V	ID NOTCHES
DEPTH:	.579" / 1.737" / 2.895"	1.158" / 1.158"
AMPLITUDE:	80% / 7% / *	44.9% / 42%
SWEEP:	.815" / 2.457" / 4.099"	1.654" / 1.778"
GAIN: (dB)	24.0	20.0 / 24.0

☐ TIME ☐ DEPTH ■ METAL PATH

* 10/8 Nodal position = 20% FSH at 38.0 dB

FIELD SIMULATOR: RHOMPAS S/N: CAL-RHOM-038

REFLECTOR:	NEAR SDH	FAR SDH
MAX AMPLITUDE:	80%	80%
SWEEP:	.383"	1.062"
GAIN: (dB)	14.0	15.0

CALIBRATION VERIFICATION

	TIME	DATE	OPER.	COMP.	REPORT NO
INITIAL	12:30	04/22/96	CVH	20RRC(6)-8	R-R11-019
VERIFIED	19:15	04/22/96	PAZ	20RRC(6)-8	R-R11-019
VERIFIED					
VERIFIED					
VERIFIED					
FINAL	22:05	04/22/96	PAZ	20RRC(6)-8	R-R11-019

BASIC SETTINGS

1. DELAY: .5803 in
2. TIMEBASE: 6.3214 in
3. FREQUENCY: (MHz) 5.00
4. RATE: /S 20.0
5. UNITS: ☐ DISTANCE ■ HALF PATH ☐ TIME
6. VELOCITY: 123464 in/s
7. SAMPLES: 512

PULSER / RECEIVER

1. MODE: ■ PULSE ECHO ☐ THRU-TRANSMISSION
2. PULSER: P1 TO P1
3. VOLTAGE: (v) 400
4. WIDTH: (Ns) 276
5. FILTER: ☐ NONE ☐ 0.5 - 2 MHz ■ 1 - 5 MHz ☐ 2 - 10 MHz ☐ 5 - 15 MHz
6. RECTIFICATION: ☐ NONE ☐ UNIPOLAR + ☐ UNIPOLAR - ■ BIPOLAR
7. SMOOTHING: ☐ NONE ☐ FAST ☐ MEDIUM ■ SLOW

Circ Notch at 80% = 26.0 dB
Axial Notch at 80% = 30.0 dB

Charles J. VanHeeke	II	4-22-96		UTILITY REVIEW	4-25-96
EXAMINER	LEVEL	DATE			DATE
Donald Watts	III	4/25/96		ANII REVIEW	4/26/96
GE REVIEWED BY	LEVEL	DATE			DATE

PAGE: 1 OF: 1

FORM UT-08 REV. 11

GE Nuclear Energy

ULTRASONIC CALIBRATION DATA SHEET
(AUTOMATED WITH *Smart 2000*)

SITE: WNP UNIT: 2 CALIBRATION SHEET NO.: CA-R11-002

PROJECT NO.: 1FR9Z - RFO11 LINEARITY SHEET NO.: L-005

PROCEDURE NO.: UT-WNP2-207V0 REVISION: 0 FRR: N/A

Instrument: TECRAD / TOMOSCAN (Manufacturer / Model) TTS10092113 (System Serial No.)

Search Unit: RTD (Manufacturer) 94-713 (Serial No.) 2(8x14)mm (Size) 2.00 MHz. (Freq.) 60° / RL (Angle/Mode) .40" (Incident to wedge front)

Cable: 2(RG-58, RG-58, RG-174) (Type) 2(250', 25', 3') (Length) 8 BNC, Lemo (No. of Connectors)

Calibration Standard: UT-09 (Serial No.) SS (Material) 1.031" (Nominal Thickness) 1.158" (Measured Thickness) 76 °F (Temp.)

Thermometer: 145989 (Serial No.)

Couplant: ULTRAGEL II (Type) 094041 (Batch No.)

CALIBRATION

ORIENTATION:	CIRC	N/A
TYPE:	ID NOTCH TIP	N/A
DEPTH:	1.042"	N/A
AMPLITUDE:	80%	N/A
SWEEP:	2.046"	N/A
GAIN: (dB)	42.0	N/A

☐ TIME ☐ DEPTH ■ METAL PATH

FIELD SIMULATOR: RHOMPAS S/N: CAL-RHOM-038

REFLECTOR:	NEAR SDH	FAR SDH
MAX AMPLITUDE:	80%	80%
SWEEP:	.707"	1.302"
GAIN: (dB)	33.0	29.0

CALIBRATION VERIFICATION

	TIME	DATE	OPER.	COMP.	REPORT NO
INITIAL	22:15	04/22/96	PAZ	20RRC(6)-8	R-R11-019
VERIFIED					
VERIFIED					
VERIFIED					
VERIFIED					
FINAL	02:40	04/23/96	PAZ	20RRC(6)-8	R-R11-019

BASIC SETTINGS

1. DELAY: 1.0696 in
2. TIMEBASE: 9.5240 in
3. FREQUENCY: (MHz) 6.25
4. RATE: /S 20.0
5. UNITS: ☐ DISTANCE ■ HALF PATH ☐ TIME
6. VELOCITY: 232519 in/s
7. SAMPLES: 512

PULSER / RECEIVER

1. MODE: ☐ PULSE ECHO ■ THRU-TRANSMISSION
2. PULSER: P1 TO R1
3. VOLTAGE: (v) 400
4. WIDTH: (Ns) 276
5. FILTER: ☐ NONE ☐ 0.5 - 2 MHz ■ 1 - 5 MHz ☐ 2 - 10 MHz ☐ 5 - 15 MHz
6. RECTIFICATION: ☐ NONE ☐ UNIPOLAR + ☐ UNIPOLAR - ■ BIPOLAR
7. SMOOTHING: ☐ NONE ☐ FAST ☐ MEDIUM ■ SLOW

Robert Pawlowski (EXAMINER)	II (LEVEL)	4-23-96 (DATE)	(UTILITY REVIEW)	4-25-96 (DATE)
(GE REVIEWED BY)	III (LEVEL)	4/25/96 (DATE)	(ANII REVIEW)	4/26/96 (DATE)

PAGE: 1 OF: 1

FORM UT-08 REV. 11

GE Nuclear Energy

ULTRASONIC CALIBRATION DATA SHEET
(AUTOMATED WITH *Smart 2000*)

SITE: WNP UNIT: 2 CALIBRATION SHEET NO.: CA-R11-003

PROJECT NO.: 1FR9Z - RFO11 LINEARITY SHEET NO.: L-005

PROCEDURE NO.: UT-WNP2-208V0 REVISION: 0 FRR: N/A

Instrument: TECRAD / TOMOSCAN (Manufacturer / Model) TTS10092113 (System Serial No.)

Search Unit: RTD (Manufacturer) 94-713 (Serial No.) 2(8x14)mm (Size) 2.00 MHz. (Freq.) 60° / RL (Angle/Mode) .40" (Incident to wedge front)

Cable: 2(RG-58, RG-58, RG-174) (Type) 2(250', 25', 3') (Length) 8 BNC, Lemo (No. of Connectors)

Calibration Standard: UT-09 (Serial No.) SS (Material) 1.031" (Nominal Thickness) 1.158" (Measured Thickness) 76 °F (Temp.)

Thermometer: 145989 (Serial No.)

Couplant: ULTRAGEL II (Type) 094041 (Batch No.)

CALIBRATION

ORIENTATION:	CIRC	N/A
TYPE:	ID NOTCH TIP	N/A
DEPTH:	1.042"	N/A
AMPLITUDE:	80%	N/A
SWEEP:	2.046"	N/A
GAIN: (dB)	42.0	N/A

☐ TIME ☐ DEPTH ■ METAL PATH

BASIC SETTINGS

1. DELAY: 1.0696 in
2. TIMEBASE: 9.5240 in
3. FREQUENCY: (MHz) 6.25
4. RATE: /S 20.0
5. UNITS: ☐ DISTANCE ■ HALF PATH ☐ TIME
6. VELOCITY: 232519 in/s
7. SAMPLES: 512

FIELD SIMULATOR: RHOMPAS S/N: CAL-RHOM-038

REFLECTOR:	NEAR SDH	FAR SDH
MAX AMPLITUDE:	80%	80%
SWEEP:	.707"	1.302"
GAIN: (dB)	33.0	29.0

PULSER / RECEIVER

1. MODE: ☐ PULSE ECHO ■ THRU-TRANSMISSION
2. PULSER: P1 TO R1
3. VOLTAGE: (v) 400
4. WIDTH: (Ns) 276
5. FILTER: ☐ NONE ☐ 0.5 - 2 MHz ■ 1 - 5 MHz ☐ 2 - 10 MHz ☐ 5 - 15 MHz
6. RECTIFICATION: ☐ NONE ☐ UNIPOLAR + ☐ UNIPOLAR - ■ BIPOLAR
7. SMOOTHING: ☐ NONE ☐ FAST ☐ MEDIUM ■ SLOW

CALIBRATION VERIFICATION

	TIME	DATE	OPER.	COMP.	REPORT NO
INITIAL	22:15	04/22/96	PAZ	20RRC(6)-8	R-R11-019
VERIFIED					
VERIFIED					
VERIFIED					
VERIFIED					
FINAL	02:40	04/23/96	PAZ	20RRC(6)-8	R-R11-019

Robert Paszkowski	II	4-23-96		4-25-96	
EXAMINER	LEVEL	DATE	UTILITY REVIEW	DATE	
Donald Wilhite	III	4/25/96		4/26/96	
GE REVIEWED BY	LEVEL	DATE	ANII REVIEW	DATE	

PAGE: 1 OF: 1

FORM UT-08 REV. 11