

Preservice examination data has been organized by zones under individual zone tabs.

Within each zone, the surface examination data is first, organized by date of examination. Volumetric examination data is last, organized by date of examination.

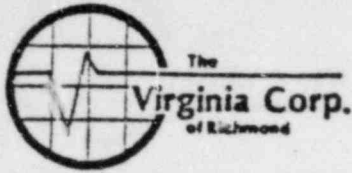
8411070199 841030
PDR ADOCK 05000382
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TITLE

Preservice Examination Data



D. Payne ANEZ 6/1/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer L P+L	Plant Waterford	Unit # 3	Loop/Zone 1/45
Component/Piping System Feed Water	Examiner/Level BURKINGAME JR	Date 5-19-82	
Procedure ISI-2.5 Rev. 0 FL-0	Iso/Drawing No. 0 NCR Supervisor Donal J. ...	Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Equipment

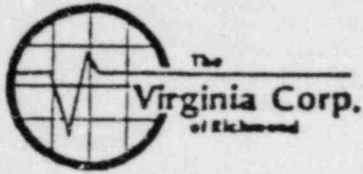
Instrument		Transducer		Calibration	
Mfgr. SONIC	Mfgr. Acrotech	Size 1/2"	Cal. Block UT-125		
Model MACK I	Freq. 5 MHz		Cal. Block		
S/N 01610 E	Serial No. KB 2897		Range Cal. 1.25" = 8d		
Reject off	Coax. Cable 6'		Calibration Checks		
Damp. MIN.	Gain 60 dB		IN	OUT	
Freq. 5 MHz			12:45	4:00	
Rep. Rate 1K					
Filter off					
Video Norm					
Couplant SONOTRAC 40 Batch # 8119					

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
45-005	12	1.406	1.093	1.562	45-008	12	1.312	*	1.156
45-005	2	1.375	1.140	1.562	45-008	2	1.250	*	1.218
45-005	4	1.437	1.140	1.562	45-008	4	1.218	*	1.218
45-005	6	1.375	1.093	1.562	45-008	6	1.250	*	1.187
45-005	8	1.375	1.218	1.562	45-008	8	1.296	*	1.156
45-005	10	1.375	1.187	1.562	45-008	10	1.250	*	1.218

Sketch/Identification

* 2 SCAN, NO, due to Valve Body Configuration



Ultrasonic Data Sheet
 for D. RAYMANI 6/1/82
 Thickness Measurement
 Continuation Page 2 of 2

Customer <u>LP+L</u>	Plant <u>Waterford</u>	Unit # <u>3</u>	Loop/Zone <u>1/45</u>
Component/Piping System <u>Feedwater</u>	Examiner/Level <u>BURLINGAME</u>	Date <u>5-19-82</u>	
Procedure <u>ISI-2.5 REV. 0 FC. 0</u>	Iso/Drawing No. <u>Zone 45 Rev. 2 FC. 0</u>	VCR Supervisor <u>Donald Jones</u>	

Examination Results

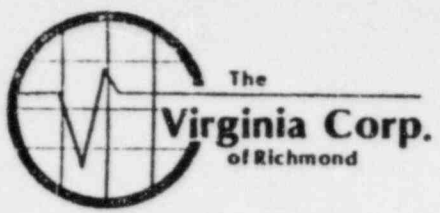
Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
45-010	12	1.281	1.093	*	45-018	12	1.328	1.531	1.171
45-010	2	1.250	1.093	*	45-018	2	1.328	1.531	1.187
45-010	4	1.281	1.156	*	45-018	4	1.343	1.484	1.187
45-010	6	1.218	1.187	*	45-018	6	1.328	1.531	1.218
45-010	8	1.250	1.193	*	45-018	8	1.312	1.531	1.218
45-010	10	1.281	1.193	*	45-018	10	1.328	1.531	1.187
45-011	12	1.250	1.375	1.156	45-019	12	1.250	1.187	1.531
45-011	2	1.250	1.406	1.093	45-019	2	1.250	1.187	1.562
45-011	4	1.250	1.375	1.00	45-019	4	1.250	1.156	1.562
45-011	6	1.218	1.375	1.093	45-019	6	1.250	1.156	1.531
45-011	8	1.218	1.375	1.125	45-019	8	1.281	1.093	1.375
45-011	10	1.218	1.375	1.156	45-019	10	1.218	1.171	1.437
45-012	12	1.250	1.140	1.375					
45-012	2	1.140	1.078	1.375					
45-012	4	1.218	1.093	1.250					
45-012	6	1.250	1.093	1.437					
45-012	8	1.187	1.093	1.375					
45-012	10	1.250	1.062	1.406					

Sketch/Identification

* 5 SCAN No due to VALVE BODY CONFIGURATION.

D. Payne ANEE 6/1/82

Ultrasonic Examination Report - Continuation Sheet Page of



Customer L Pot L	Plant Water Ford	Unit # 3	Loop/ Zone 1 / 45	Iso/Drawing No. Zone 45 Rev. 2 F.C.D
Procedure ISI-2.2 Rev. 0 EC. 1	Exam Surface OD	Examiner/Level BURLINGAME II.3	VCR Supervisor Daniel Jones	Date 5-19-82
Component/Piping System Feed water	Pipe Size 20"	Weld Type Butt	Cal. Block UT-125	Couplant: Type & Batch # Sonotrace 40 Batch # 8119

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
45-004 LA	Yes	NA	NA	NA	Yes	Clean	Ground	NI	Sat.	*	
45-004 LB	Yes				Yes	Clean	Ground	NI	Sat.	*	
45-005	Yes				Yes	Clean	Ground	NI	Sat.		
45-008	Yes				Yes	Clean	Ground	NI	Sat.		
45-011	Yes				Yes	Clean	Ground	NI	Sat.		
45-012	Yes				Yes	Clean	Ground	NI	Sat.		
45-018	Yes				Yes	Clean	Ground	NI	Sat.		
45-019	Yes	↓	↓	↓	Yes	Clean	Ground	NI	Sat.		
* SEE ERRATA SECTION OF FINAL REPORT FOR CORRECTION.											



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Ultrasonic Examination Report

B. Burlingame 6/1/82

Customer L P L		Plant Waterford	Unit #3	Loop/Zone 1/45	ISO Drawing No. Zone 45 Rev 2 F.C.O
Procedure ISI-2.2 Rev. A FC-1	Exam Surface OD	Examiner/Level BURLINGAME II		VOR Supervisor Daniel Jones	Date 5-19-82
Component/Piping System Feed water		Pipe Size 20"	Weld Type Butt	Cal. Block # UT-125	Couplant: Type Sono 40 Batch No 8119

Continuation Sheet Attached
 Yes No

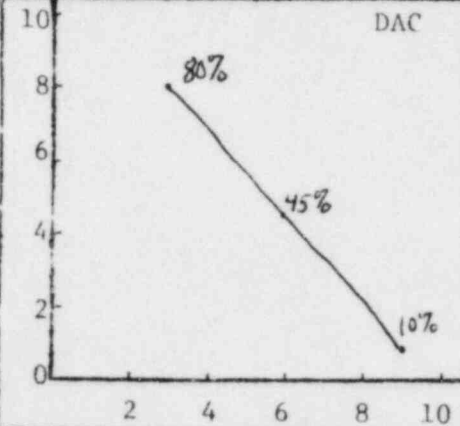
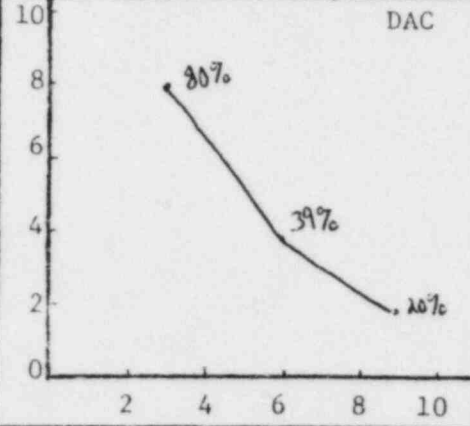
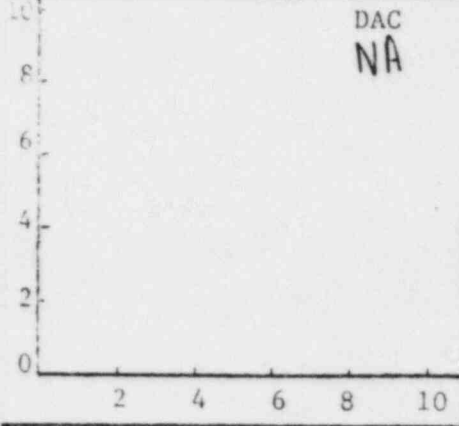
Field Changes:
Yes No
If Yes, Number

Transducer	0°	45°	60°	Instrument				
	S/N	NA	M04140	NA	Mfr.	Sonic	Model	Mark I
	Size	I	1/2"	I	S/N	780836	Replate	IK
	Frequency	I	2.25 MHz	I	Reject	OFF	Filter	OFF
	Beam Angle	I	45°	I	Damp	Min.	Coax	6'
				Freq.	2.25 MHz	Video	Norm.	

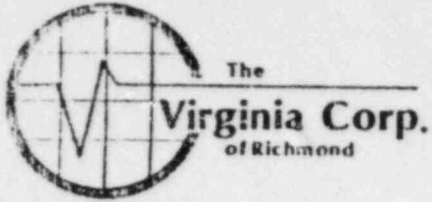
Calibration 0°
2 & 5 Scan
7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks							
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°			
											In	Out	In	Out	In	Out		
1T	NA	NA	80%	3	NA		80%	3	NA		NA	NA						
2T	I	I	39%	6	I		45%	6	I		I	I						
3T	I	I	20%	9	I		10%	9	I		I	I						

Ref. dB: NA 40 DB 46 DB



Additional Comments/Sketch



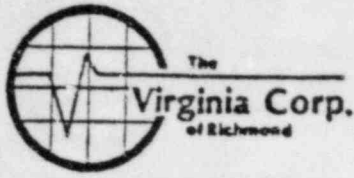
Ultrasonic Examination Report - Continuation Sheet

Page of

R. Payne ANEE 6/1/92

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>#3</i>	Loop/Zone <i>1/45</i>	Iso/Drawing No. <i>Zone 45 Rev 2 EC-0</i>
Procedure <i>ISI-2.2 Rev. 0 EC-1</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME II</i>	VCR Supervisor <i>Denise Jones</i>	Date <i>5-19-92</i>
Component/Piping System <i>Feedwater</i>	Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-125</i>	Couplant: Type & Batch # <i>Sonotrax 40 Batch #8119</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
45-004LA	NA	Yes	Yes	Yes	NA		Clean	Ground	NI	Sat.	*
45-004LB		Yes	Yes	Yes			Clean	Ground	NI	Sat.	*
45-005		Yes	Yes	Yes			Clean	Ground	NI	Sat.	
45-008		Yes	Yes	Yes			Clean	Ground	NI	Sat.	
45-011		Yes	Yes	Yes			Clean	Ground	NI	Sat.	
45-012		Yes	Yes	Yes			Clean	Ground	NI	Sat.	
45-018		Yes	Yes	Yes			Clean	Ground	NI	Sat.	
45-019	↓	Par	Yes	Yes	↓	Limitation from small branch connection Limitation Length Approx. 3" @ 180°	Clean	Ground	NI	Sat.	
						* SEE ERRATA SECTION OF FINAL REPORT FOR CORRECTION.					



D. Payne ANII 6/1/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP & L	Plant Waterford	Unit # 3	Loop/Zone 1/45
Component/Piping System Feedwater	Examiner/Level FURLINGAME IIIB	Date 5-20-82	
Procedure ISI 2.5 Rev. 0 F.C. 0	Iso/Drawing No. ZONE 45 Rev 2 F.C. 0	VCR Supervisor Daniel Jones	Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration	
Mfgr. SONIC	Mfgr. Aerotech	Size 1/2"	Cal. Block UT-125		
Model MARK I	Freq. 5 MHz		Cal. Block		
S/N 01610E	Serial No. WB 2897		Range Cal. 1.250" = 80		
Reject off	Coax. Cable 6'		Calibration Checks		
Damp. M.N.	Gain 60 dB		IN	OUT	
Freq. 5 MHz			7:45	9:30	
Rep. Rate 14					
Filter off					
Video Norm.					
Couplant SONATAC 40 Batch # 8119					

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
45-013	12	1.093	1.437	1.187	45-014	12	1.250	1.140	1.406
45-013	2	1.281	1.406	1.171	45-014	2	1.187	1.171	1.375
45-013	4	1.281	1.531	1.156	45-014	4	1.250	1.218	1.375
45-013	6	1.281	1.562	1.187	45-014	6	1.312	1.187	1.468
45-013	8	1.212	1.531	1.218	45-014	8	1.187	1.171	1.468
45-013	10	1.312	1.453	1.156	45-014	10	1.218	1.156	1.406

Sketch/Identification



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Ultrasonic Examination Report **D. Payne ANII 9/1/82**

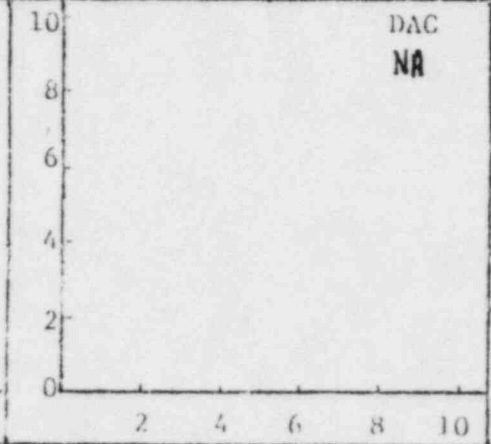
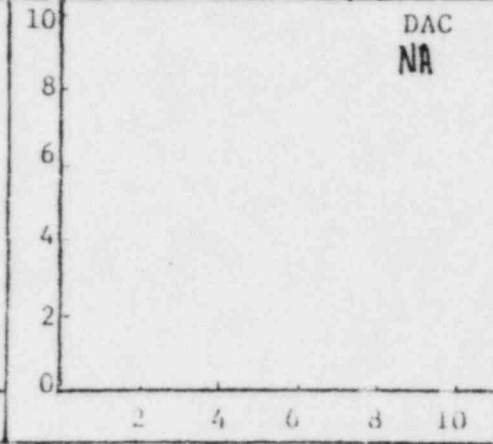
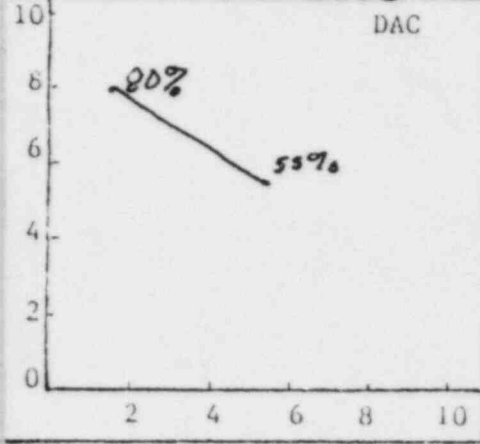
Customer LP-4	Plant WATERFORD	Unit #3	Loop/Zone 1/45	Iso/Drawing No. zone 45 Rev. 2 FC-0
Procedure 151-22 Rev. 0 FC-1	Exam Surface OD	Examiner/Level BURLINGAME II	VGR Supervisor Wenell Jensen	Date 5-20-82
Component/Piping System Feed water	Pipe Size 20"	Weld Type Butt	Cal. Block UT-125	Couplant: Type Sono 40 Batch No. 8119

Continuation Sheet Attached
 Yes No

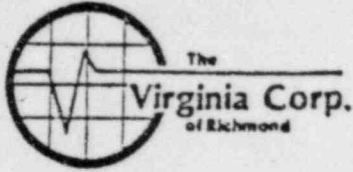
Field Changes:
Yes No
If Yes, Number **1**

Transducer	Instrument		
	Mfr.	Sonic	Model
0°	KB 2897	01610E	1K
45°	NA	OFF	6'
60°	NA	2.25 MHz	Norm.

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1/4T	80%	1.8	NA	NA	NA		NA	NA	NA		12:50	3:25	NA	NA	NA	NA
3/4T	55%	5.7														
Ref. dB	65DB		NA				NA									



Additional Comments/Sketch



D. Payne ANII 6/1/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP+L	Plant Waterford	Unit # 3	Loop/Zone 145
Component/Piping System Feed water		Examiner/L. el BURLINGHAME	Date 5-21-82
Procedure ISI-2.5 Rev. 0 FC-D	Iso/Drawing No. Zone 45 Rev. 2 FC-D	VCR Supervisor Daniel Dims	Continuation Sheet Attached [] Yes [X] No

Equipment

Instrument		Transducer		Calibration
Mfgr. Sonic	Mfgr. Acrotech	Size 1/2"	Cal. Block UT-124	
Model Mark I			Cal. Block	
S/N 01610 E	Freq. 5 MHz		Range Cal. 1" = 8 Div.	
Reject OFF			Calibration Checks	
Damp. Min.	Serial No. KB 2897		IN	OUT
Freq. 5 MHz			1:00	2:30
Rep. Rate 1K	Coax. Cable 6'			
Filter OFF				
Video Norm.	Gain 69 DB			
Couplant Sonotrace 40 Batch 8119				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
45-001	12	.78	.78	.98					
	2	.93	.83	1.00					
	4	.90	.83	.98					
	6	.90	.83	1.00					
	8	.90	.90	1.00					
45-003	10	.85	.80	1.00					
	12	.93	1.25	.93					
	2	1.00	1.25	1.00					
	4	1.01	1.25	.80					
	6	.98	1.25	.80					
	8	.95	1.25	.75					
	10	.95	1.25	.80					

Sketch/Identification



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Ultrasonic Examination Report

D. Payne ANZI 6/1/82

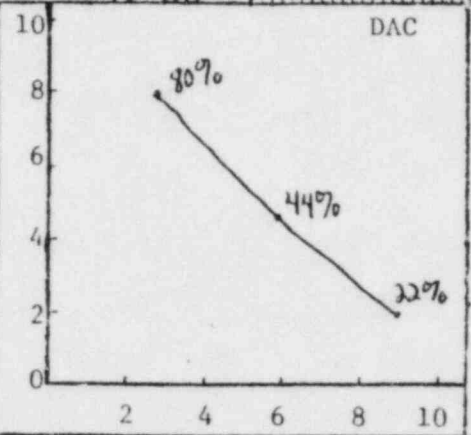
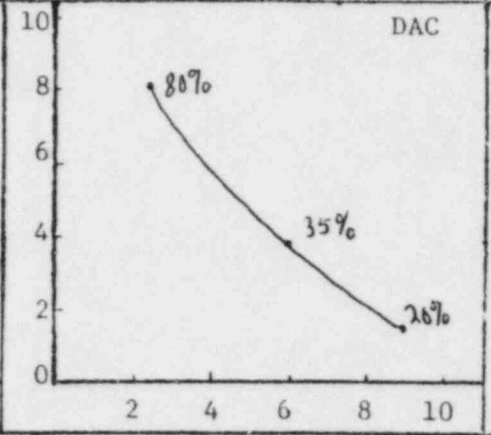
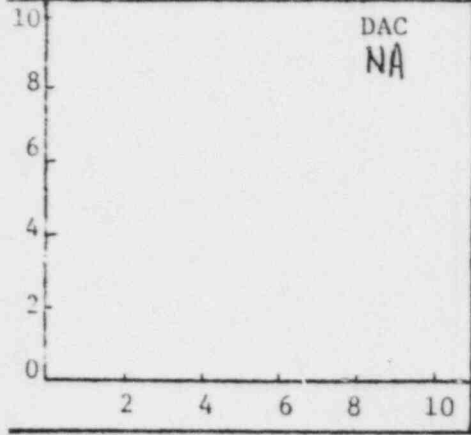
Customer <i>LP-22</i>	Plant <i>Waterford</i>	Unit <i>#3</i>	Loop/Zone <i>1/45</i>	Iso/Drawing No. <i>Zone 45 Rev. 2 FC-0</i>
Procedure <i>ISE-22 Rev. A FC-1</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME II</i>		VCR Supervisor <i>Daniel Jones</i>
Component/Piping System <i>Feed water</i>		Pipe Size <i>18"</i>	Weld Type <i>Butt</i>	Date <i>5-21-82</i>
		Cal. Block <i>UT-124</i>	Couplant: Type <i>Sono 40</i> , Batch No <i>8119</i>	

Continuation Sheet Attached
 Yes No

Field Changes:
Yes No
If Yes, Number *1*

Transducer	0°	45°	60°	Instrument			
	S/N <i>NA</i>	<i>M09140</i>	<i>NA</i>	Mfr. <i>Sonic</i>	Model <i>780836</i>	RepRate <i>1K</i>	Mark I
	Size <i>I</i>	<i>1/2"</i>	<i>I</i>	S/N <i>780836</i>	Filter <i>OFF</i>	Coax <i>12'</i>	Norm.
	Frequency <i>I</i>	<i>2.25 MHz</i>	<i>I</i>	Reject <i>OFF</i>	Damp <i>Min.</i>	Video <i>2.25 MHz</i>	

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1T</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3</i>	<i>NA</i>		<i>80%</i>	<i>3.2</i>	<i>NA</i>		<i>NA</i>	<i>NA</i>	<i>1.00</i>	<i>2.30</i>	<i>NA</i>	<i>NA</i>
<i>2T</i>	<i>I</i>	<i>I</i>	<i>35%</i>	<i>6</i>	<i>I</i>		<i>44%</i>	<i>6.2</i>	<i>I</i>		<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>
<i>3T</i>	<i>I</i>	<i>I</i>	<i>20%</i>	<i>9</i>	<i>I</i>		<i>22%</i>	<i>9.3</i>	<i>I</i>		<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>
Ref. dB	<i>NA</i>		<i>41 DB</i>				<i>45 DB</i>				<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>



Additional Comments/Sketch

D. Payne ANII 6/1/82



Ultrasonic Examination Report - Continuation Sheet

Customer LP+L	Plant Waterford	Unit *3	Loop/ Zone 1/45	Iso/Drawing No. Zone 45, Rev 2 FC-0
Procedure ISE-22 Rev A FC-1	Exam Surface OD	Examiner/Level BURLINGAME II		VCR Supervisor Deniel Jones
Component/Piping System Feedwater		Pipe Size 18"	Weld Type Butt	Date 5-21-82
		Cal. Block UT-124	Couplant: Type & Batch # Sontrace 40 # 8119	

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
45-001	NA	Yes	Yes	Yes	NA		Clean	Ground	NI	SAT	
45-003	↓	Par	Par	Par	↓	O.D. Mismatch 360°	Clean	Ground	NI	SAT	



D. Payne ANIE 6/14/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP+L	Plant Waterford	Unit # 3	Loop/Zone A/45
Component/Piping System Main Feed Header A	Examiner/Level BURLINGAME	Date 6-10-82	
Procedure ISI-2.5, Rev. 0	Iso/Drawing No. ZONE 45, Rev. 2FC	VCR Supervisor Daniel Jones	Continuation Sheet Attached [] Yes [X] No

Equipment

Instrument		Transducer		Calibration
Mfgr. SONIC	Mfgr. Aerotech	Size .50"	Cal. Block UT-125	
Model MARK I			Cal. Block NA	
S/N 780836	Freq. 5 mhz		Range Cal. 8 div = 1.25"	
Reject off			Calibration Checks	
Damp. M.V.	Serial No. KB 2897		IN: 8:45 AM	
Freq. 5 mhz				
Rep. Rate 1K	Coax. Cable 6'		OUT: 11:00 AM	
Filter hi				
Video Norm	Gain 70 dB			
Couplant sonotrace 40 Batch #8119				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
45-016	12	1.250"	1.375"	1.156"	45-020	12	1.219"	1.406"	1.156"
	2	1.250"	1.406"	1.171"		2	1.188"	1.344"	1.188"
	4	1.281"	1.375"	1.219"		4	1.219"	1.344"	1.156"
	6	1.219"	1.375"	1.188"		6	1.188"	1.313"	1.188"
	8	1.250"	1.344"	1.188"		8	1.188"	1.375"	1.188"
	10	1.250"	1.344"	1.188"		10	1.219"	1.188"	1.188"
45-017	12	1.281"	1.156"	1.484"					
	2	1.281"	1.094"	1.375"					
	4	1.344"	1.156"	1.375"					
	6	1.375"	1.125"	1.406"					
	8	1.313"	1.156"	1.406"					
	10	1.313"	1.156"	1.437"					

Sketch/Identification



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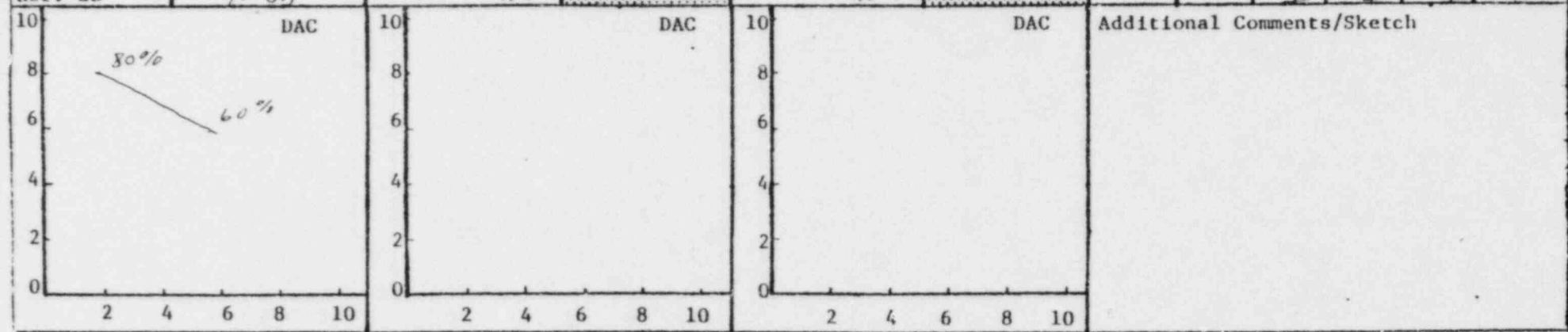
Ultrasonic Examination Report

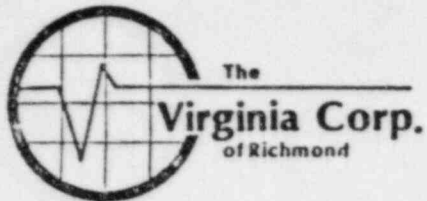
D. Payne ANTE 9/14/82

Customer <i>L P+L</i>		Plant <i>Waterford</i>		Unit <i>#3</i>	Loop/Zone <i>1, 45</i>	Iso/Drawing No. <i>ZONE 45, REV. 2, FC-01</i>		<i>MARK SAD</i>
Procedure <i>FC-1 SI-22 REVC</i>		Exam Surface <i>00</i>	Examiner/Level <i>BURLINGAME JG</i>		VCR Supervisor <i>Daniel J. Dem</i>		Date <i>6-10-82</i>	
Component/Piping System <i>Feedwater</i>			Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block & Couplant: <i>UT-125, 1.25" Type 50650 Batch No 8124</i>			

Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Transducer	<i>0°</i>	<i>45°</i>	<i>60°</i>	Instrument			
		S/N	<i>UB2897</i>	<i>NA</i>	<i>NA</i>	Mfg.	<i>SONIC</i>	Model	<i>MARK I</i>
Field Changes: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>FC-1</i> If Yes, Number		Size	<i>1/2"</i>			S/N	<i>280836</i>	RepRate	<i>1K</i>
		Frequency	<i>5 mhz</i>			Reject	<i>OFF</i>	Filter	<i>OFF</i>
		Beam Angle	<i>0°</i>			Damp	<i>MIN</i>	Coax	<i>6'</i>
		Beam Angle				Freq.	<i>5 mhz</i>	Vider	<i>NO/IN</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>Y4 T</i>	<i>80%</i>	<i>1.3</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>		<i>NA</i>	<i>NA</i>	<i>NA</i>		<i>0845</i>	<i>1100</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>Y2 T</i>	<i>60%</i>	<i>5.6</i>														
<i>Back</i>	<i>100%</i>	<i>8.0</i>														
Ref. dB	<i>70 dB</i>		<i>NA</i>				<i>NA</i>									





Ultrasonic Examination Report - Continuation Sheet

D. Payne ANEI 9/14/82

Customer <i>LP 72</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>1, 45</i>	Iso/Drawing No. <i>ZONE 45, REV. 2, FC-0202</i>	<i>mem</i>
Procedure <i>FC-1 151-22, REV. 0</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME II</i>	VCR Supervisor <i>Donald Devo</i>	Date <i>6-10-82</i>	
Component/Piping System <i>FEEDWATER</i>	Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-125, 125"</i>	Couplant: Type & Batch # <i>SONOTRACE 40 # 8124</i>	

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
		45-014	YES	NA	NA		NA	YES	CLEAN	GROUND	
45-017	YES	↓	↓	↓	YES	CLEAN	GROUND	NI	SAT		
45-020	YES	↓	↓	↓	YES	CLEAN	GROUND	NI	SAT		



Ultrasonic Examination Report

D. Payne ANII 6/14/82

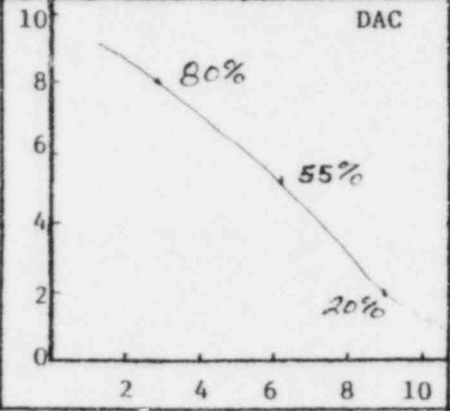
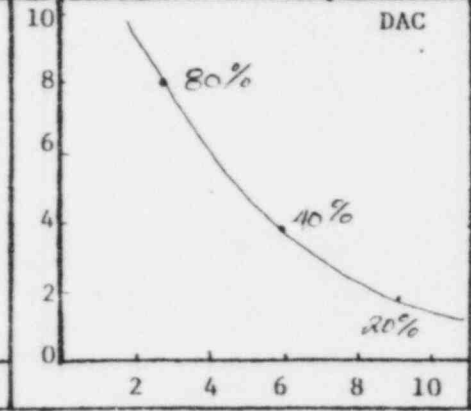
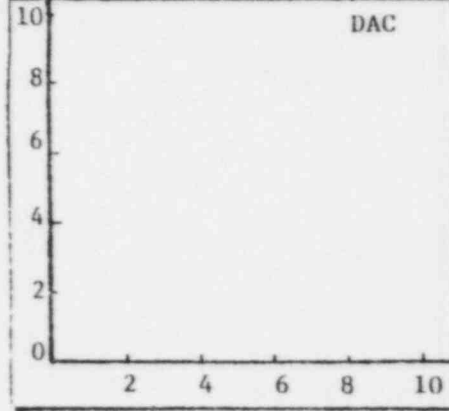
Customer <i>LP3L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone/Isos/Drawing No. <i>1 45 ZONE 45, REU.2 FC-01A</i>
Procedure <i>FC-1</i> <i>ISI-22, REV.0</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME II</i>	VCA Supervisor <i>Daniel Dem</i>
Component/Piping System <i>FEEDWATER</i>		Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>
		Cal. Block <i>UT-125, 1.25</i>	Coplant: <i>SONOTRAC</i> Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No *FC-1*
 If Yes, Number

Transducer	Instrument		
	0°	45°	60°
S/N	<i>NA</i>	<i>122935</i>	<i>NA</i>
Size		<i>1/2"</i>	
Frequency		<i>2.25m</i>	
Beam Angle	<i>45°</i>		
Mfg.	<i>SONIC</i>	Model	<i>FIS-mk-1</i>
S/N	<i>03704E</i>	RepRate	<i>1000</i>
Reject	<i>OFF</i>	Filter	<i>OFF</i>
Damp	<i>MIN.</i>	Coax	<i>12'</i>
Freq.	<i>2 MHz</i>	Video	<i>NORM.</i>

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks									
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
<i>1T</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3.2</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>						
<i>2T</i>			<i>40%</i>	<i>6</i>				<i>55%</i>	<i>5.9</i>									
<i>3T</i>			<i>20%</i>	<i>9</i>				<i>20%</i>	<i>9.0</i>									
Ref. dB	<i>NA</i>	<i>NA</i>	<i>43 dbG</i>					<i>45 dbG</i>										



Additional Comments/Sketch



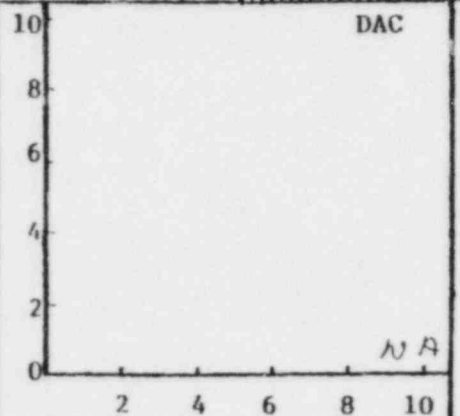
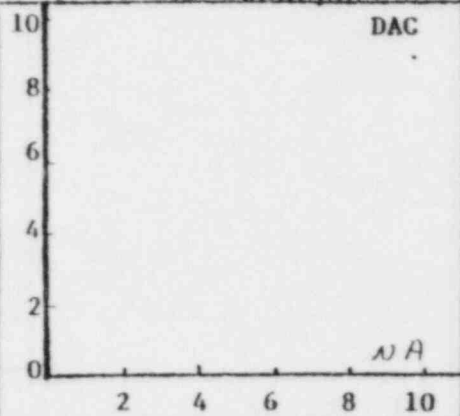
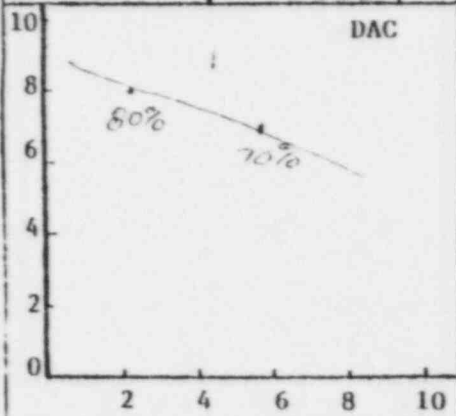
The
Virginia Corp.
of Richmond

Ultrasonic Examination Report *D. Payne ANIE 6/16/82*

Customer <i>LPIL</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>1-45</i>	Iso/Drawing No. <i>ZONE 45, REV 2, FC-8/189</i>	<i>NRM</i>
Procedure <i>FC-1</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME II</i>	VGR Supervisor <i>Daniel Jones</i>	Date <i>6-16-82</i>	
Component/Piping System <i>FEEDWATER</i>	Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block # <i>UT-125</i>	Couplant: <i>SONOTRACE</i>	Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transducer	<i>0°</i>	<i>45°</i>	<i>60°</i>	Instrument			
	S/N	<i>KB2728</i>	<i>NA</i>	<i>NA</i>	Mfr.	<i>SONIC</i>	Model	<i>FTS-MK-1</i>
	Size	<i>1/2"</i>			S/N	<i>01610E</i>	RepRate	<i>1000</i>
	Frequency	<i>2.25m</i>			Reject	<i>OFF</i>	Filter	<i>OFF</i>
Field Changes: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>FC-1</i> If Yes, Number	Beam Angle	<i>0°</i>			Damp	<i>MIN.</i>	Coax	<i>6'</i>
					Freq.	<i>2 MHz</i>	Video	<i>NORM</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks								
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°		
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out	
<i>1/4T</i>	<i>80%</i>	<i>1.7</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>1300</i>	<i>1400</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>1/2T</i>	<i>70%</i>	<i>4.9</i>																	
<i>BACK</i>	<i>>100%</i>	<i>7</i>																	
Ref. dB	<i>63dB</i>																		



Additional Comments/Sketch



The
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Ultrasonic Examination Report

6/21/82

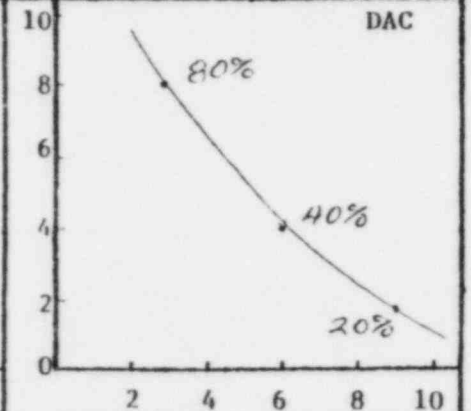
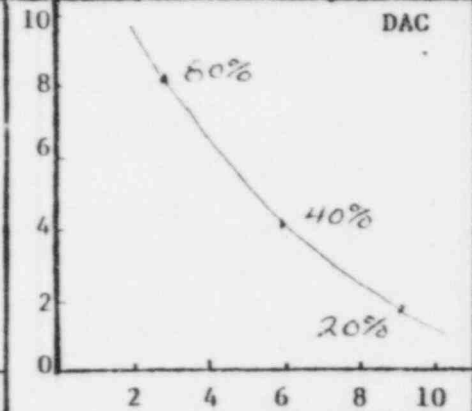
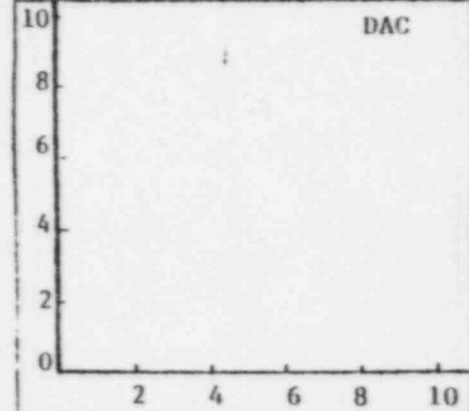
Customer LP3L	Plant (WATERFORD)	Unit 3	Loop/Zone 1-45	Iso/Drawing No. ZONE-45, REV. 2, FC-1, 1849	NAME NA
Procedure ISA-32, REV. 0, FC-1	Exam Surface OD	Examiner/Level BURLINGAME II	VGR Supervisor [Signature]	Date 6-16-82	
Component/Piping System FEEDWATER	Pipe Size 20"	Weld Type BUTT	Cal. Block UT-125	Couplant: SONOTRACE	Type 40 Batch No. 8124

Continuation Sheet Attached
Yes No

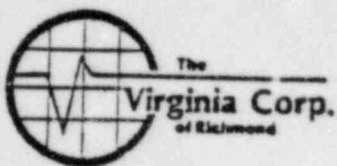
Field Changes:
Yes No **FC-1**
If Yes, Number

Transducer	0°	45°	60°	Instrument			
S/N	NA	J22935	NA	Mfg.	SONIC	Model	FTS-mk1
Size		1/2"		S/N	01610E	RepRate	1000
Frequency		2.25m		Reject	OFF	Filter	OFF
Beam Angle		45°		Damp	MIN	Coax	12'
				Freq.	2. mHz	Video	NORM

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks								
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°		
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out	
1T	NA	NA	80%	3	NA	NA	NA	80%	3	NA	NA	NA	NA	NA	NA	1310	1410	NA	NA
2T			40%	6				40%	6										
3T			20%	9				20%	9.2										
Ref. dB			49 dBG					55 dBG											



Additional Comments/Sketch



D. Payne ANII 7/19/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer <i>L P + L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1/45</i>
Component/Piping System <i>Main Feed Header A-Inside</i>	Examiner/Level <i>Edward J. Folan III</i>	Date <i>7/16/82</i>	
Procedure <i>ISI 2.5 Rev 0</i>	Iso/Drawing No. <i>Zone 45 Rev. 2 FL</i>	VCR Supervisor <i>Donny J. ...</i>	Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>Sonic</i>	Mfgr. <i>Parametric</i>	Size <i>50</i>	Cal. Block <i>UT-124</i>	
Model <i>MARK I</i>	Freq. <i>2.25 MHz</i>		Cal. Block <i>N/A</i>	
S/N <i>01058E</i>	Serial No. <i>44651</i>		Range Cal. <i>1.47" ± 100</i>	
Reject <i>OFF</i>	Coax. Cable <i>6' BNC-Dual</i>		Calibration Checks	
Damp. <i>Mid</i>	Gain <i>50dB</i>		Initial <i>3.32</i>	
Freq. <i>2.0 MHz</i>			Final <i>4.45</i>	
Rep. Rate <i>1K</i>				
Filter <i>Hi</i>				
Video <i>Norm</i>				
Couplant <i>Sonotape 40 # 8124</i>				

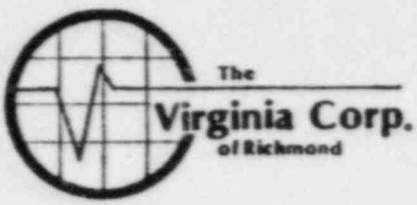
Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>45-002</i>	<i>12</i>	<i>.96"</i>	<i>.88"</i>	<i>.84"</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
<i>45-002</i>	<i>2</i>	<i>.94"</i>	<i>.93"</i>	<i>.85"</i>					
<i>45-002</i>	<i>4</i>	<i>.93"</i>	<i>.97"</i>	<i>.88"</i>					
<i>45-002</i>	<i>6</i>	<i>.90"</i>	<i>.91"</i>	<i>.88"</i>					
<i>45-002</i>	<i>8</i>	<i>.90"</i>	<i>.88"</i>	<i>.88"</i>					
<i>45-002</i>	<i>10</i>	<i>.94"</i>	<i>.95"</i>	<i>.87"</i>					

Sketch/Identification

Ultrasonic Examination Report

D. Payne ANZI 7/19/82



Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1/45</i>	Iso/Drawing No. <i>Zone 45 Rev 2 FL2</i>
Procedure <i>ISI-2, 8 Rev. 0 FL2</i>	Exam Surface <i>OD</i>	Examiner/Level <i>David J. Fisher III</i>		VCR Supervisor <i>Dennis Adams</i>
Component/Piping System <i>Main Feed Header A/inside container</i>		Pipe Size <i>18"</i>	Weld Type <i>BUTT</i>	Date <i>7-16-82</i>
			Cal. Block <i>UT-124</i>	Couplant: Type ^{SONOTAC} <i>etc</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *2*

	Transducer	0°	45°	60°	Instrument			
	S/N	<i>44651</i>	<i>NA</i>	<i>NA</i>	Mfg.	<i>SONIC</i>	Model	<i>MARK I</i>
	Size	<i>.50"</i>			S/N	<i>01058 E</i>	RepRate	<i>1K</i>
	Frequency	<i>2.25 MHz</i>			Reject	<i>off</i>	Filter	<i>Hi</i>
Beam Angle	<i>0°</i>			Damp	<i>M.N</i>	Coax	<i>6' ANL & A-1</i>	
					Freq.	<i>2.0 MHz</i>	Video	<i>No/m</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
<i>YH T</i>	<i>80%</i>	<i>1.5</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>3:32</i>	<i>4:45</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4 T</i>	<i>50%</i>	<i>4.5</i>															

Ref. dB <i>45 dB</i>	<i>NA</i>	<i>NA</i>	Additional Comments/Sketch
<p style="text-align: center;">DAC</p>	<p style="text-align: center;">DAC <i>NA</i></p>	<p style="text-align: center;">DAC <i>NA</i></p>	



Ultrasonic Examination Report

D. Payne ANII 7/19/82

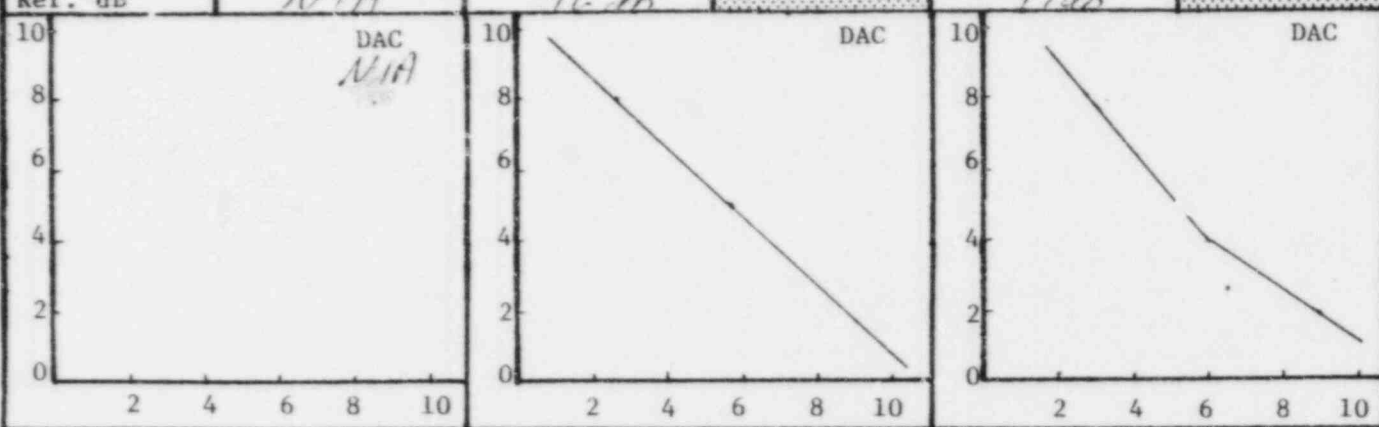
Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1145</i>	Iso/Drawing No. <i>Zone 45 Rev. 2FL2</i>
Procedure <i>15122 Rev. 01</i>	Exam Surface <i>CO</i>	Examiner/Level <i>David F. Fokun 14</i>	VER Supervisor <i>Kevin Dena</i>	Date <i>7/16/82</i>
Component/Piping System <i>Man Feed Header A - Inside Ls</i>	Pipe Size <i>18"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-124</i>	Couplant: <i>Sonotrace</i> Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

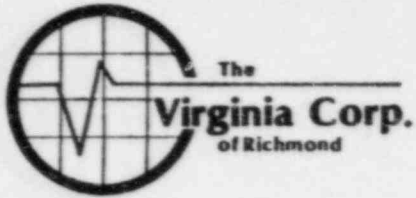
Field Changes:
 Yes No
 If Yes, Number *2*

Transducer	0°	45°	60°	Instrument			
	<i>NIA</i>	<i>J22935</i>	<i>NIA</i>	Mfr.	<i>Seal</i>	Model	<i>MuckE</i>
Size	<i>.50"</i>			S/N	<i>C5473F</i>	RepRate	<i>1X</i>
Frequency		<i>2.25 MHz</i>		Reject	<i>OFF</i>	Filter	<i>H1</i>
Beam Angle		<i>45°</i>		Damp	<i>MIA</i>	Coax	<i>6' PVC PVC</i>
				Freq.	<i>2.0 MHz</i>	Video	<i>Norm</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1T</i>	<i>NIA</i>	<i>NIA</i>	<i>80%</i>	<i>3.0</i>	<i>NIA</i>	<i>NIA</i>	<i>80%</i>	<i>3.0</i>	<i>NIA</i>	<i>NIA</i>	<i>NIA</i>	<i>NIA</i>	<i>3.45</i>	<i>4.48</i>	<i>NIA</i>	<i>NIA</i>
<i>2T</i>			<i>50%</i>	<i>6.0</i>			<i>40%</i>	<i>6.0</i>								
<i>3T</i>			<i>20%</i>	<i>9.0</i>			<i>20%</i>	<i>9.0</i>								
Ref. dB	<i>NIA</i>		<i>46dB</i>				<i>47dB</i>									



Additional Comments/Sketch



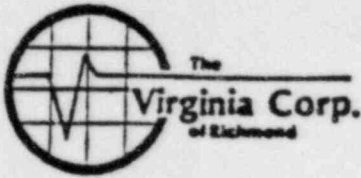
A. Payne ANEE 7/19/82

Ultrasonic Examination Report - Continuation Sheet

Page 3 of 3

Customer <i>L P&B</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1145</i>	Is Drawing No. <i>Zone 45 Rev. 2 F.C.2</i>
Procedure <i>1512 Rev. 0</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>David F. ...</i>	VCR Supervisor <i>Dennis ...</i>	Date <i>7/16/82</i>
Component/Piping System <i>Main Feed Header A-Inside</i>	Pipe Size <i>18"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-124</i>	Couplant: Type & Batch # <i>Sonotrace 40 # 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
45-002	Par	Yes	Yes	Par	Par	Weld crown limited 0.7x8 by approx 10%	Smooth	contour excellent	N1	Sat.	I.D. geom. 20-25° S scan 50-90° Par. also I.D. geom. 15-20° scan 50-80° Par.



M. R. Martin, ANIF 10/5/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer L P & L	Plant WATERFORD	Unit 3	Loop/Zone A 45
Component/Piping System MAIN FLEO HEADER A- INSIDE CONT	Examiner/Level Navy Longenecker II	Date 9-28-82	
Procedure ISI 2.5 R-0	Iso/Drawing No. ZONE 45 R-2.F.3	VCR Supervisor Daniel Jensen	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. SONIC	Mfgr. KB AEROTECH	Size 1.0" DIA	Cal. Block UT-37	
Model MARK I	Freq. 2.25 MHz	Cal. Block		
S/N 01058E	Serial No. 48807	Range Cal. 7" @ 8.2		
Reject OFF	Coax. Cable 12'	Calibration Checks		
Damp. MIN	Gain 37db	CAL IN 6:45		
Freq. 2.0 MHz	Couplant SONOTRACE 40 #8124	CAL OUT 9:20		
Rep. Rate 3K				
Filter HI				
Video Norm				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
45-023	12	*	6.829	*	NA	NA	NA	NA	NA
45-023	2		6.915						
45-023	4		6.915						
45-023	6		6.915						
45-023	8		6.915						
45-023	10		6.915						

Sketch/Identification

* UNABLE TO OBTAIN DUE TO NOZZLE RADIUS

W.R. Martin, ANII 1/5/82



Ultrasonic Examination Report PAGE 1 OF 6

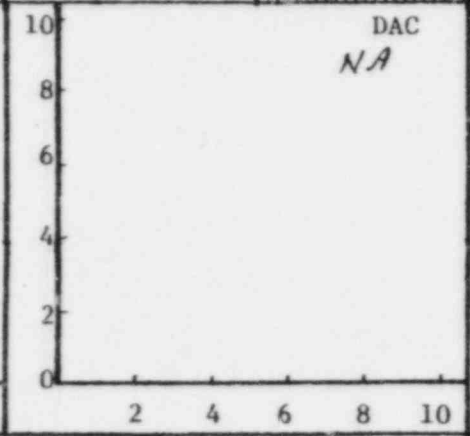
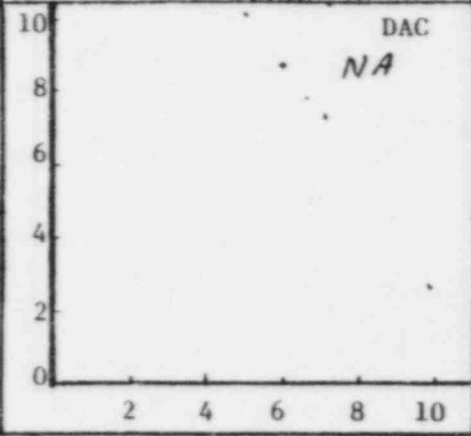
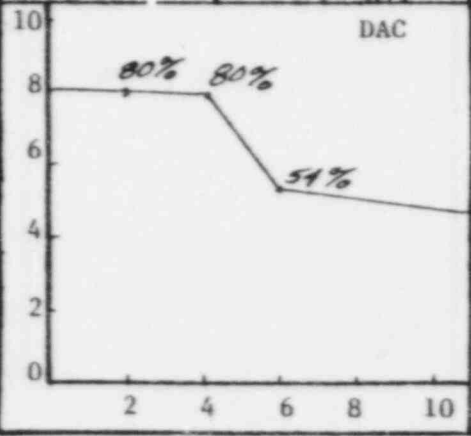
Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>A 45</i>	Iso/Drawing No. <i>ZONE 45 R-2, F.C. 3</i>
Procedure <i>ISI. 2.2 R0, F.C.2</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Nary Longenecker II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>9-28-82</i>
Component/Piping System <i>INSIDE MAIN FEED HEADER A - CONT.</i>	Pipe Size <i>NOZZLE</i>	Weld Type <i>BUTT</i>	Cal. Block # <i>UT-37</i>	Couplant: <i>SONOTRACE</i> Type <i>90</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *2*

Transducer	0°	45°	60°	Instrument			
	S/N <i>48307</i>	<i>NA</i>	<i>NA</i>	Mfgr. <i>SONIC</i>	Model <i>MARK I</i>		
	Size <i>1." DIA</i>			S/N <i>01058E</i>	RepRate <i>3K</i>		
	Frequency <i>2.25 MHz</i>			Reject <i>OFF</i>	Filter <i>H1</i>		
	Beam Angle <i>0°</i>			Damp <i>MIN.</i>	Coax <i>12'</i>		
				Freq. <i>2. MHz.</i>	Video <i>NORM</i>		

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
<i>1/4 T</i>	<i>80%</i>	<i>2.0</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>6:45</i>	<i>9:20</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>1/2 T</i>	<i>80%</i>	<i>4.0</i>															
<i>3/4 T</i>	<i>54%</i>	<i>6.0</i>															
<i>1 T</i>	<i>NA</i>	<i>8.2</i>															
Ref. dB	<i>27 dB</i>																



Additional Comments/Sketch



Ultrasonic Examination Report

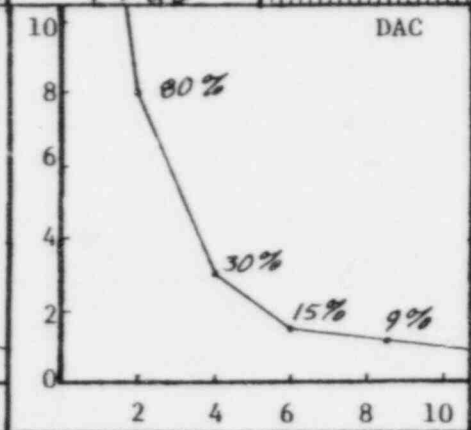
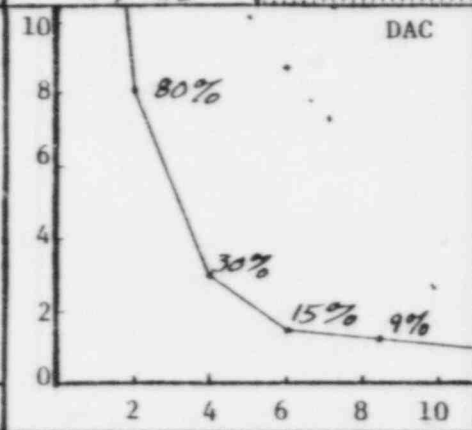
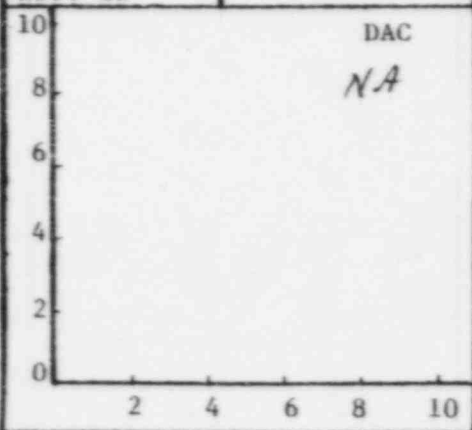
Customer LP & L	Plant WATERFORD	Unit 3	Loop/Zone A 45	Iso/Drawing No. ZONE 45 R-2, F.C.3
Procedure ISI. 22 RO, FCC	Exam Surface O.D.	Examiner/Level Nary Longenecker II	VCR Supervisor Nancy Jensen	Date 9-28-82
Component/Piping System INSIDE MAIN FEED HEADER A- CONT		Pipe Size NOZZLE	Weld Type BUTT	Cal. Block # UT-37
			Couplant: SONOTRACE	Type 40 Batch No. 8129

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **2**

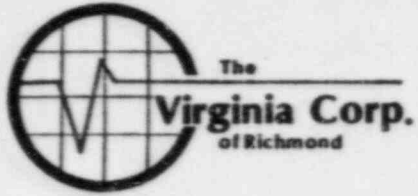
Transducer	30°	45°	60°	Instrument			
S/N	M04140	NA	NA	Mfr.	SONIC	Model	MARK I
Size	1/2" DIA.			S/N	02307E	RepRate	3K
Frequency	2.25 MHZ			Reject	OFF	Filter	H1
Beam Angle				Damp	MIX.	Coax	12'
				Freq.	2. MHZ.	Video	NORM

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		30°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
1/4 T	NA	NA	80%	2.0	NA	NA	80%	2.0	NA	NA	NA	6:47	9:23	NA	NA	NA	NA
1/2 T			30%	4.0			30%	4.0									
3/4 T			15%	6.0			15%	6.0									
1 T			9%	8.2			9%	8.2									
Ref. dB			77 db				77 db										



Additional Comments/Sketch
HALF NODE CALIBRATION

W.R. Martin, ANII 10-5-82



Ultrasonic Examination Report - Continuation Sheet

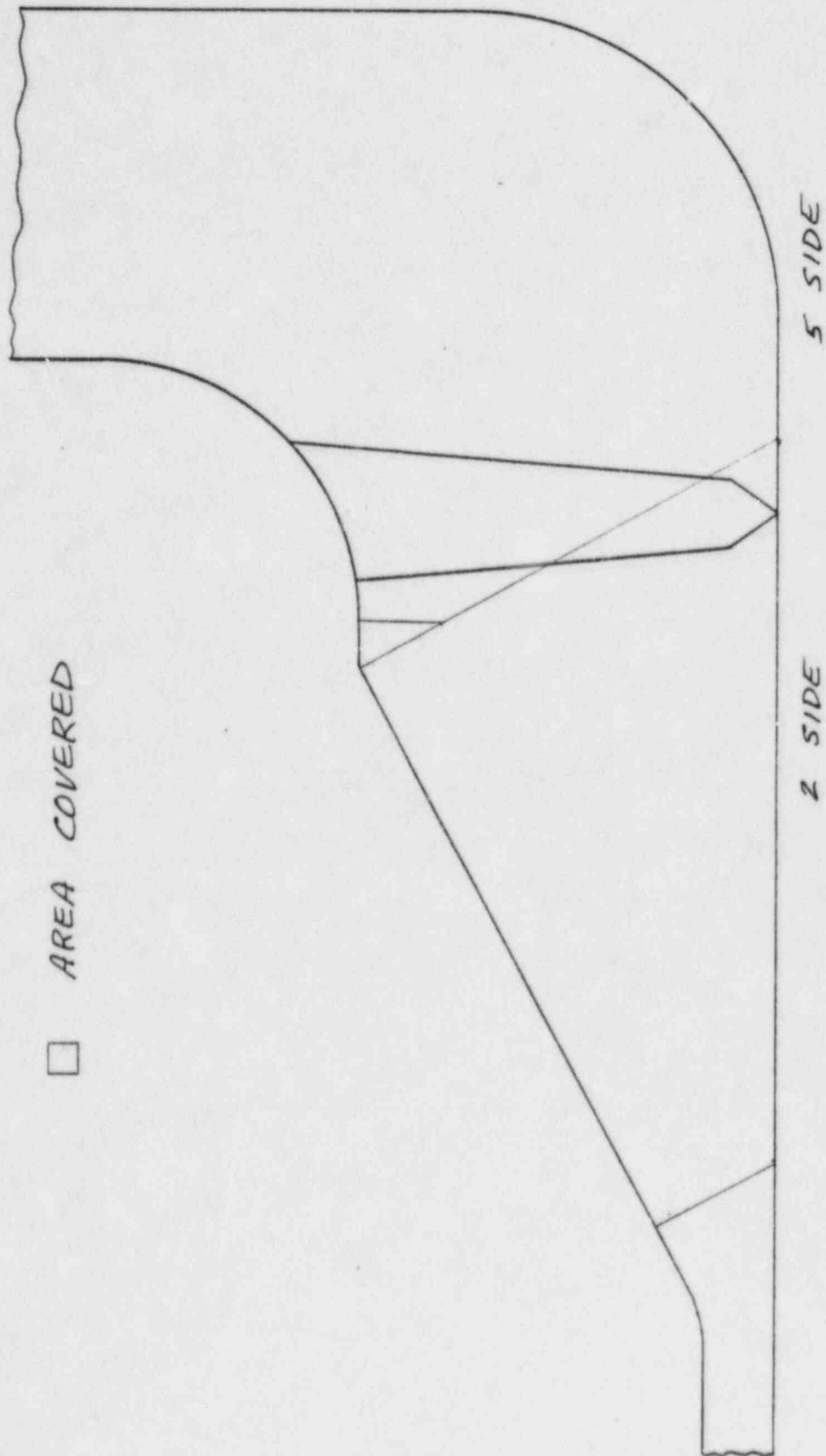
Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>A 45</i>	Iso/Drawing No. <i>ZONE 45 R-2, F.C.3</i>
Procedure <i>ISE. 2.2 R-O, F.C.2</i>	Exam Surface <i>O.D</i>	Examiner/Level <i>Harry Longenecker II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>9-28-82</i>
Component/Piping System <i>MAIN FEED HEADER A- CONT.</i>	<i>INSIDE</i>	Pipe Size <i>NOZZLE</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-37</i>
Couplant: Type & Batch # <i>SONOTRACE 40 8124</i>				

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
45-023	NA	PAR	NO	PAR	PAR	SEE ATTACHED SHEET	CLEAN	GROUND	NI	SAT	SEE ATTACHED

WELD NO. 45-023

0°, 7/8 SCANS

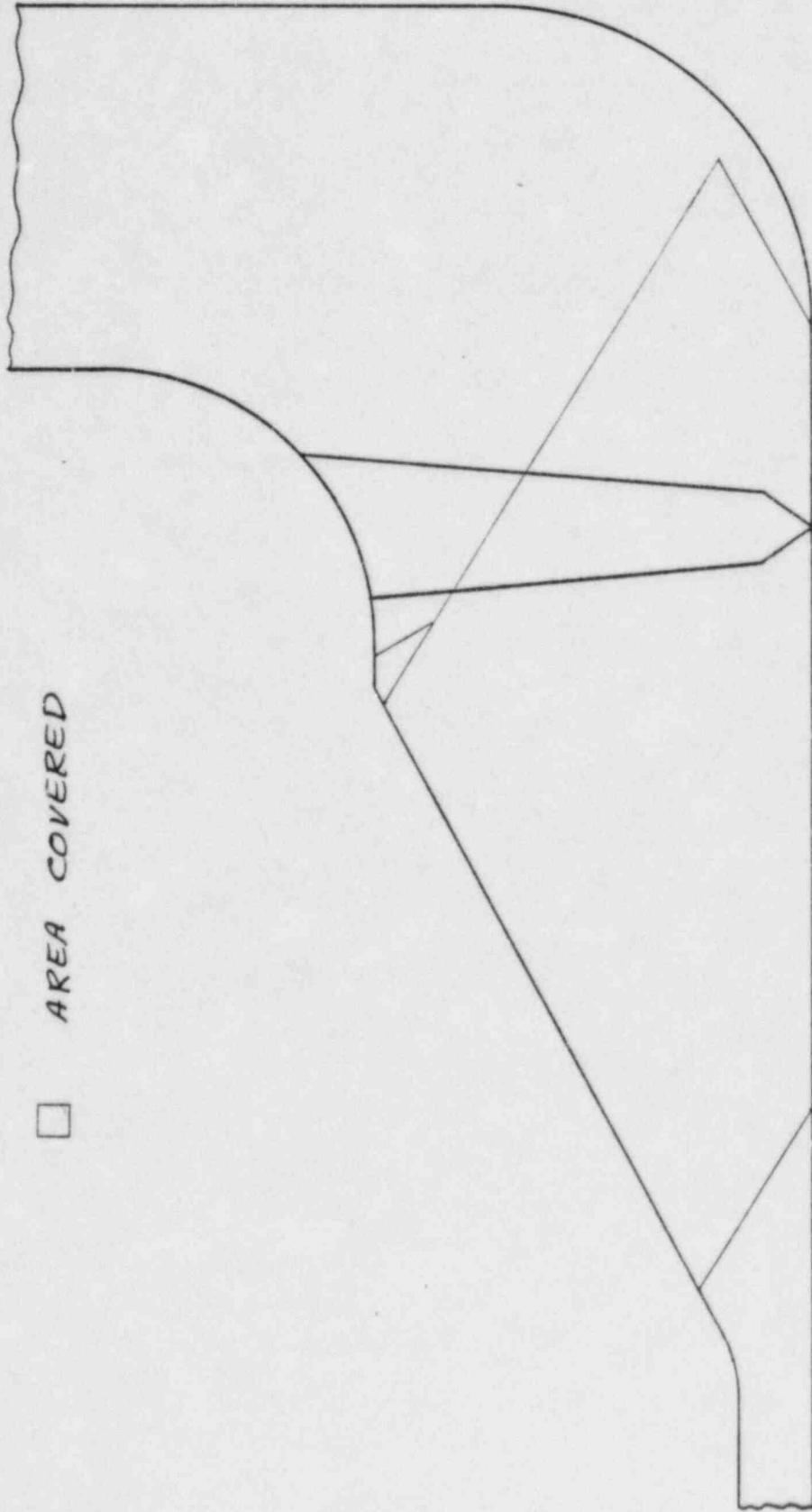
□ AREA COVERED



WELD NO. 45-023

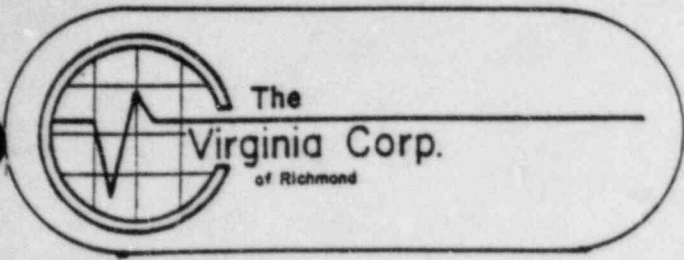
2 SCAN R.L. 30°

□ AREA COVERED



2 SIDE

5 SIDE



DATE 9-28-82

PAGE 6 OF 6

TO _____

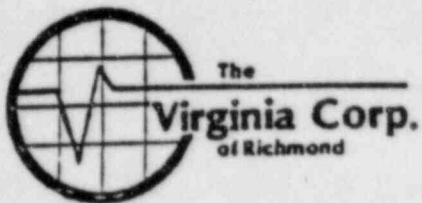
SUBJECT REMARKS

WELD NO. 45-023 WELD WAS EXAMINED WITH
30° R.L. WAVE. WEDGE NOISE NOTICED
WHEN MAKING POOR CONTACT.

5 SIDE BASE METAL AND 5 SCAN
COULD NOT BE PERFORMED, AND ALL
OTHER SCANS WERE LIMITED BECAUSE
OF NOZZLE RADIUS.

I.D. GEOMETRY NOTICED IN 2 SCAN
2 5/8" (2 SIDE) WITH EXIT POINT OF
WEDGE DIRECTLY OVER CORNER OF
BEVEL. SIGNAL COMING UP AT 7.1 SW.
450% DAC, 360°. AT THIS POINT IT
SHOULD BE 8.1 SW. TO I.D. WITH 30°
ABLE TO REDUCE SIGNAL BY WIPING
COUPLANT FROM WEDGE ON BEVEL
SIDE OF EXIT POINT. THE COUPLANT
IS CAUSING SOUND TO GO CLOSE TO
NORMAL (0°) TO I.D. AT THIS ANGLE
SOUND PATH WOULD BE 7.1 ON SWEEP

SIGNED Mary Longenecker



Magnetic Particle
 W.R. Martin, ANIF, 4-5-82
 Examination Report

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>2/40</i>
Procedure <i>ISI-4.3 Rev D</i>	Examiner/Level <i>CR Sloop II CFink I</i>	VER Supervisor <i>Daniel J...</i>	Date <i>3-31-82</i>
Component/Piping System <i>Main Feed Header B</i>	ISO Drawing No. <i>Zone 40 Rev 2</i>	Surface Condition <i>Ground</i>	
Type of Particles <input checked="" type="checkbox"/> Wet <input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input type="checkbox"/> Fluorescent	Manufacturer <i>Magna-Flux</i>	Type <i>BA Red</i>	Batch Number <i>81M107</i>
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC	Machine Mfr. <i>Parker Research</i>	Type/Model <i>Contour Probe</i>	Serial No. <i>5801</i>
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil <i>NA</i> Amps. <i>NA</i> No. Turns	Prods <i>NA</i> Spacing <i>NA</i> Amps.	Yoke <i>6</i> " Spacing

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
<i>46-001</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-002</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-004</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-006</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-008</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-009</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-010</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



The
Virginia Corp.
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Magnetic Particle

D. Payne ANII 6/1/82
 Examination Report

Customer <i>L P & L</i>		Plant <i>Waterford</i>		Unit <i>3</i>	Loop/Zone <i>46</i>	
Procedure <i>ISE-43 Rev. 0 FC-0</i>		Examiner/Level <i>Mary G. [Signature]</i>		VGR Supervisor <i>Daniel [Signature]</i>		Date <i>5-28-82</i>
Component/Piping System <i>Main Feed Header B - Inside Containment Zone 46</i>		ISO Drawing No. <i>Rev. 2</i>		Surface Condition <i>Ground</i>		
Type of Particles <i>Wet</i> <input checked="" type="checkbox"/> <i>Dry</i> <input checked="" type="checkbox"/> <input type="checkbox"/> <i>Visible</i> <input type="checkbox"/> <input type="checkbox"/> <i>Flourescent</i> <input type="checkbox"/>			Manufacturer <i>Parker Research</i>		Type <i>SA-Red</i>	Batch Number <i>* 81M110</i>
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC		Machine Mfr. <i>Parker Research</i>		Type/Model <i>Contour DA-2.00</i>	Serial No. <i>* 4604</i>	
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil <i>NA</i> Amps. <i>NA</i> No. Turns	Prods <i>NA</i> Spacing <i>NA</i> Amps.	Yoke <i>6"</i> Spacing			

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
<i>46-011</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-014</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-015</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-016</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



The
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of Richmond

Magnetic Particle

D. PaynLANIZ 9/12
Examination Report

Customer *LP&L* Plant *WATERFORD* Unit *3* Loop/Zone *B/46*

Procedure *ISE 4.3, REV.#0* Examiner/Level *R. BLANK II* VCR Supervisor *Daniel Jensen* Date *6-9-82*

Component/Piping System *MAIN FEED HEADER "B" INSIDE CONTAINMENT ZONE 46 REV.#2* ISO Drawing No. *GROUND* Surface Condition

Type of Particles *Wet* *Dry* Visible Fluorescent
Manufacturer *MAGNAFLUX* Type *DRY POWDER SA* Batch Number *81M110*

Current AC DC HWDC Machine Mfr. *PARKER RESEARCH* Type/Model *CONTOUR PROBE/DA-200* Serial No. *4604*

Magnetization Continuous Residual
Coil *NA* Amps. *NA* No. Turns *NA*
Prods *NA* Spacing *NA* Amps. *NA*
Yoke *6"* Spacing

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
<i>46-019</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



The
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of Richmond

Magnetic Particle

D. Payne AMT 6/15/82
Examination Report

Customer LP&L Plant WATERFORD Unit 3 Loop/Zone 3/46

Procedure ISI 4.3 REV#0 Examiner/Level *A. Luma II* VCR Supervisor *Donald Jones* Date 6-11-82

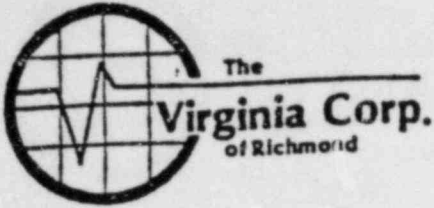
Component/Piping System MAIN FEED HEADER "B" INSIDE CONTAINMENT ISO Drawing No. ZONE 46 REV#2 Surface Condition GROUND

Type of Particles
Wet Dry Visible Fluorescent Manufacturer MAGNAFLUX Type DRY POWDER SA Batch Number 81 M110

Current AC DC HWDC Machine Mfr. PARKER RESEARCH Type/Model CONTOUR PROBE/CA-200 Serial No. 4604

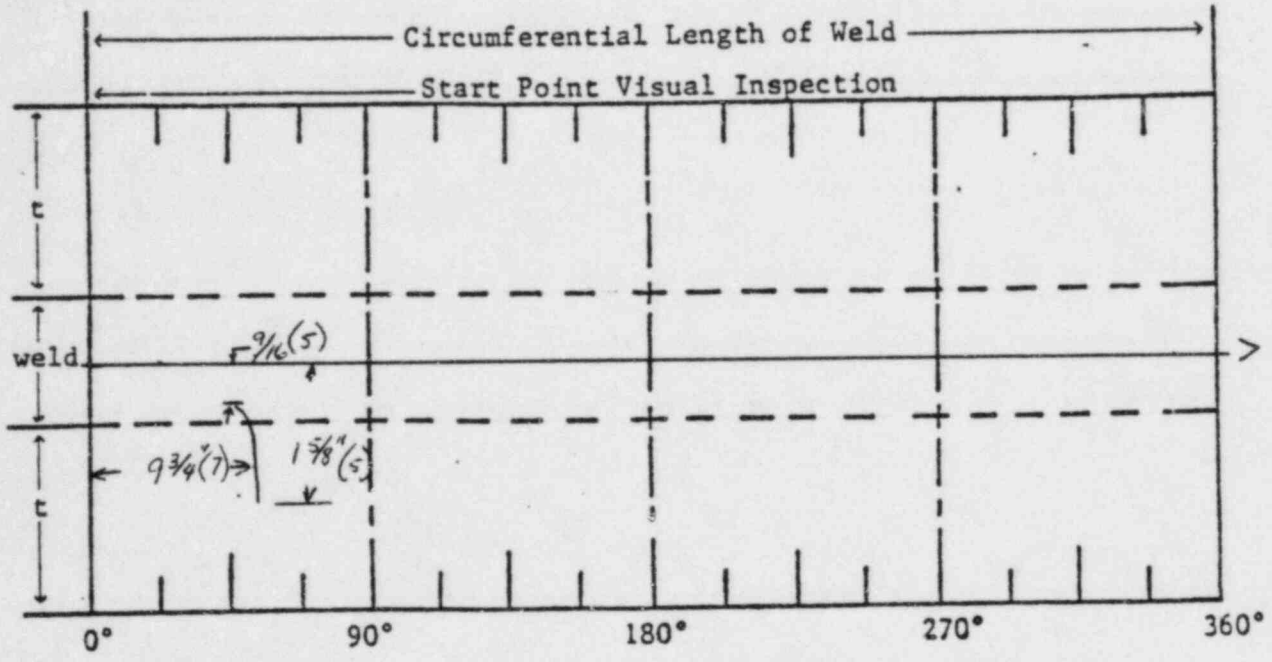
Magnetization Continuous Residual
Coil N/A Amps. Prods N/A Spacing Yoke 6" Spacing
1 No. Turns 1 Amps.

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
46-012	SEE ATTACHED SHEET		✓	✓	
46-017		✓		✓	



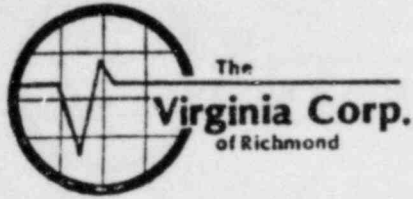
Magnetic Particle
Weld Indication Record

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>B/46</i>
Procedure <i>ISI 4.3 REV.#0</i>	Examiner/Level <i>B. E. ... II</i>	Date <i>6-11-82</i>	
Component/Piping System <i>MAIN FEED HEADER "B" INSIDE CONTAINMENT</i>		VCR Supervisor <i>...</i>	
Weld No. <i>46-012</i>	ISO/Drawing No. <i>ZONE 46, REV.#2</i>		



Remarks

ONE LINEAR RELEVANT INDICATION LOCATED TRANSVERSE OF WELD 1 7/8" IN LENGTH, 1/8" IN WIDTH, 1/8" IN FROM TOE OF WELD 1 1/2" IN BASE METAL



Magnetic Particle
W.R. Martin, ANSI 9-10-82
Examination Report

Customer LP&L	Plant WATERFORD	Unit 3	Loop / Zone NA 46
Procedure ISE 4.3 REV-0 FC-21	Examiner/Level RA Robert W Anderson II	VCR Supervisor Daniel Jensen	Date 9-3-82
Component/Piping System MAIN FEED HEADER B - INSIDE CONTAINMENT		ISO Drawing No. ZONE 46 REV-2 FC-3	Surface Condition GROUND
Type of Particles Wet <input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input checked="" type="checkbox"/> Fluorescent <input type="checkbox"/>		Manufacturer MAGNAFLUX	Type 8A RED
Current AC <input checked="" type="checkbox"/> DC <input type="checkbox"/> HWDC <input type="checkbox"/>		Machine Mfr. PARKER RESEARCH	Serial No. 4604
Magnetization Continuous <input checked="" type="checkbox"/> Residual <input type="checkbox"/>		Coil NA Amps. NA No. Turns	Yoke 6" Spacing
		Prods NA Spacing NA Amps.	

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
46-012	RE-EXAMINED AFTER REPAIR	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



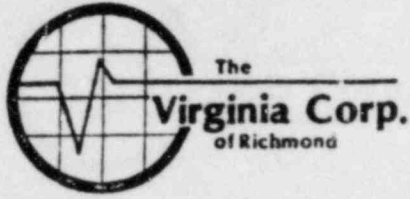
The
Virginia Corp.
of Richmond

M.R. Martin, ANII 9-29-82
Magnetic Particle

Examination Report

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit # <i>3</i>	Loop/Zone <i>2/46</i>
Procedure <i>ISI-4.3 Rev. 0 EC.1</i>	Examiner/Level <i>Michael E. Smith II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>9-25-82</i>
Component/Piping System <i>Main Feed Header @ inside containment</i>		ISO Drawing No. <i>ZONE 46 Rev. 2 EC. 3</i>	Surface Condition <i>GROUND</i>
Type of Particles <input checked="" type="checkbox"/> Wet <input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input type="checkbox"/> Fluorescent	Manufacturer <i>MAGNA FLUX</i>	Type <i>8A Red</i>	Batch Number <i>81M110</i>
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC	Machine Mfr. <i>Parker Research</i>	Type/Model <i>Contact Probe</i>	Serial No. <i>4604</i>
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil <i>N/A</i> Amps. <i>N/A</i> No. Turns	Prods <i>N/A</i> Spacing <i>N/A</i> Amps.	Yoke <i>6"</i> Spacing

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
<i>46-WS4-1</i>	<i>Adequate field was verified</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-WS4-2</i>	<i>using MPFI #17</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-WS4-3</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>46-WS4-4</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



W.R. Martin, ASES 11-4-82
Magnetic Particle

Examination Report

Customer LP+L		Plant Waterford		Unit 3	Loop/Zone NA/46
Procedure 151-43 R.O F.C.1		Examiner/Level Robert J. Overstreet II		VCR Supervisor Daniel Jensen	
Date 9-27-82		Component/Piping System Main feed header B- inside Cont.		ISO Drawing No. Zone 46 R.2 F.C.3	Surface Condition Ground
Type of Particles Wet <input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input type="checkbox"/> Fluorescent <input type="checkbox"/>		Manufacturer Magnaflux	Type 8a red	Batch Number 81M110	
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC	Machine Mfr. Parker Research	Type/Model Contour Probe	Serial No. 7133		
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil <u>N/A</u> Amps. <u>N/A</u> No. Turns	Prods <u>N/A</u> Spacing <u>N/A</u> Amps.	Yoke <u>6"</u> Spacing		

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
46-WS1-1	Adequate field was verified	✓		✓	
46-WS1-2	using MPFI #17.	✓		✓	
46-WS1-3		✓		✓	
46-WS1-4		✓		✓	
46-WS2-1		✓		✓	
46-WS2-2		✓		✓	
46-WS2-3		✓		✓	
46-WS2-4		✓		✓	
46-WS3-1		✓		✓	
46-WS3-2		✓		✓	
46-WS3-3		✓		✓	
46-WS3-4		✓		✓	



D. Payne ANII 6/1/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer <i>LP + L</i>	Plant <i>Waterford</i>	Unit # <i>3</i>	Loop/Zone <i>2/46</i>
Component/Piping System <i>Feedwater</i>	Examiner/Level <i>BURLINGAME II</i>	Date <i>5-20-82</i>	
Procedure <i>ISI-2.5 Rev 0 F.C.O.</i>	Iso/Drawing No. <i>Zone 46 Rev 2 F.C.O.</i>	VCR Supervisor <i>Daniel Jones</i>	Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Equipment

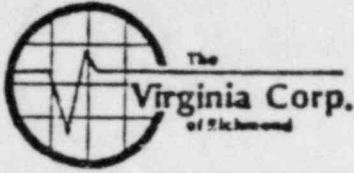
Instrument	Transducer		Calibration
Mfgr. <i>SONIC</i>	Mfgr. <i>Aerotech</i>	Size <i>1/2"</i>	Cal. Block <i>UT-125</i>
Model <i>MARK I</i>			Cal. Block
S/N <i>01610 E</i>	Freq. <i>5 MHz</i>		Range Cal. <i>1.250" = 8 d</i>
Reject <i>off</i>			Calibration Checks <i>in out</i>
Damp. <i>MIN.</i>	Serial No. <i>46 2897</i>		
Freq. <i>5 MHz</i>			
Rep. Rate <i>14</i>	Coax. Cable <i>6'</i>		
Filter <i>off</i>			
Video <i>NORM.</i>	Gain <i>60 dB</i>		
Couplant <i>SONOTAC 40 Batch 8119</i>			

Examination Results

Weld Number	Meas. Point	Reading, Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading, Weld	Reading Scan 2	Reading Scan 5
46-004	12	1.140	1.281	1.468	46-008	12	1.250	1.187	*
46-004	2	1.218	1.187	1.437	46-008	2	1.375	1.156	*
46-004	4	1.281	1.125	1.562	46-008	4	1.312	1.125	*
46-004	6	1.218	1.156	1.562	46-008	6	1.375	1.125	*
46-004	8	1.187	1.187	1.437	46-008	8	1.343	1.062	*
46-004	10	1.218	1.156	1.562	46-008	10	1.375	1.046	*
46-006	12	1.296	*	1.171	46-009	12	1.250	1.500	1.062
46-006	2	1.328	*	1.171	46-009	2	1.218	1.500	1.046
46-006	4	1.296	*	1.156	46-009	4	1.156	1.375	1.125
46-006	6	1.312	*	1.171	46-009	6	1.218	1.375	1.125
46-006	8	1.296	*	1.187	46-009	8	1.171	1.343	1.062
46-006	10	1.312	*	1.156	46-009	10	1.218	1.468	1.125

Sketch/Identification

* weld # 46-006, 2 SCAN NO due to VALVE Body Configuration
 * weld # 46-008, 5 SCAN NO due to VALVE Body Configuration



Ultrasonic Data Sheet
 for *D. Payne* ANIZ 6/1/82
 Thickness Measurement
 Continuation Page 2 of 2

Customer <i>LP + L</i>	Plant <i>Waterford</i>	Unit # <i>3</i>	Loop/Zone <i>2/46</i>
Component/Piping System <i>Feedwater</i>	Examiner/Level <i>BURLINGAME II</i>	Date <i>5-20-82</i>	
Procedure <i>ISI-2.5 REV. 0 FC. 0.</i>	Iso/Drawing No. <i>Zone 46 Rev. 2 FC. 0</i>	VGR Supervisor <i>Daniel Jensen</i>	

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>46-010</i>	<i>12</i>	<i>1.250</i>	<i>1.093</i>	<i>1.437</i>					
<i>46-010</i>	<i>2</i>	<i>1.140</i>	<i>1.015</i>	<i>1.406</i>					
<i>46-010</i>	<i>4</i>	<i>1.109</i>	<i>1.031</i>	<i>1.437</i>					
<i>46-010</i>	<i>6</i>	<i>1.187</i>	<i>1.125</i>	<i>1.468</i>					
<i>46-010</i>	<i>8</i>	<i>1.127</i>	<i>1.218</i>	<i>1.437</i>					
<i>46-016</i>	<i>10</i>	<i>1.187</i>	<i>1.031</i>	<i>1.343</i>					

Sketch/Identification



The
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Ultrasonic Examination Report

D. Payne ANEL 6/1/82

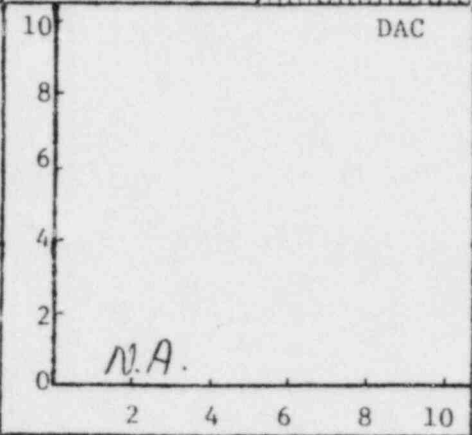
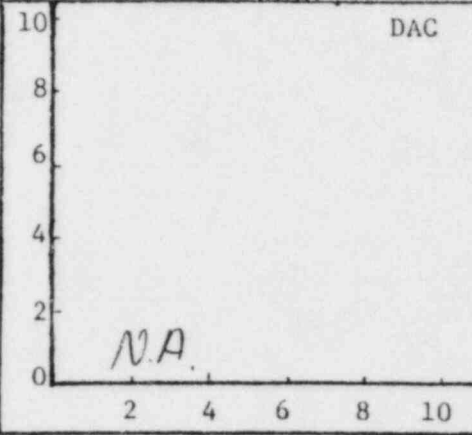
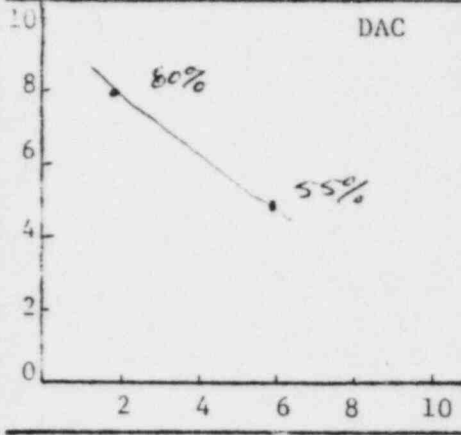
Customer LP 3 L		Plant WATERFORD		Unit 3	Loop/Zone 2, 46	Iso/Drawing No. ZONE 46, REV 2, FC-0	
Procedure FC-1		Exam Surface OD		Examiner/Level BURLINGAME II		VCR Supervisor Daniel Jones	
151-2.2 RELO						Date 5-20-82	
Component/Piping System REACTOR COOLANT			Pipe Size 20"	Weld Type butt		Cal. Block UT-125	Couplant: SONOTRACE Type 40 Batch No 8119

Continuation Sheet Attached
 Yes No

Field Changes:
Yes No
If Yes, Number **FC-1**

	Transducer			Instrument			
	S/N			Mfr.	SONIC	Model	FTS, MK-1
	Size			S/N	016DE	RepRate	1000
	Frequency			Reject	OFF	Filter	OFF
	Beam Angle			Damp	MIN	Coax	6'
			Freq.	5 MHz	Video	NORMAL	

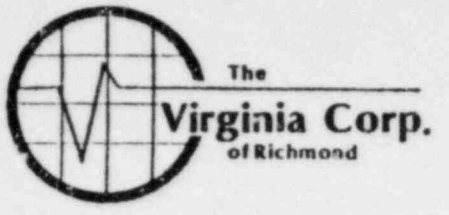
Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1/4T	80%	4.8	NA	NA	NA		NA	NA	NA		0745	0930	NA	NA	NA	NA
3/4T	55%	5.7														
Ref. dB	65db															



Additional Comments/Sketch

D. Payne-HITE 8/1/82

Ultrasonic Examination Report - Continuation Sheet Page of



Customer <i>LP-L</i>	Plant <i>Waterford</i>	Unit <i>#3</i>	Loop/ Zone <i>2/46</i>	Iso/Drawing No. <i>Zone 46 Rev 2 FC-0</i>
Procedure <i>ISO 2.2 Rev A FC-1</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME II</i>	VCR Supervisor <i>Daniel Duno</i>	Date <i>5-20-82</i>
Component/Piping System <i>Feedwater</i>		Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-125</i>
				Couplant: Type & Batch # <i>Sonotrace 40 Batch 8119</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>46-004</i>	<i>Yes</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>Yes</i>		<i>Clean</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	
<i>46-006</i>	<i>Yes</i>	<i> </i>	<i> </i>	<i> </i>	<i>Yes</i>		<i>Clean</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	
<i>46-008</i>	<i>Yes</i>	<i> </i>	<i> </i>	<i> </i>	<i>Yes</i>		<i>Clean</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	
<i>46-009</i>	<i>Yes</i>	<i> </i>	<i> </i>	<i> </i>	<i>Yes</i>		<i>Clean</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	
<i>46-010</i>	<i>Yes</i>	<i>v</i>	<i>v</i>	<i>v</i>	<i>Yes</i>		<i>Clean</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	



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Ultrasonic Examination Report *90. Payne ANTI 6/1/82*

Customer <i>LP-L</i>	Plant <i>Waterford</i>	Unit <i>#3</i>	Loop/Zone <i>2/46</i>	ISO/Drawing No. <i>Zone 46 Rev 2 FC-0</i>
Procedure <i>ISI-22 Rev 0 FC-1</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME III</i>	VGR Supervisor <i>Naniel Jones</i>	Date <i>5-20-82</i>
Component/Piping System <i>Feed water</i>	Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-125</i>	Couplant: Type <i>Sens 40</i> Batch No <i>8119</i>

Continuation Sheet Attached
 Yes No

Field Changes:

Yes No
If Yes, Number *1*

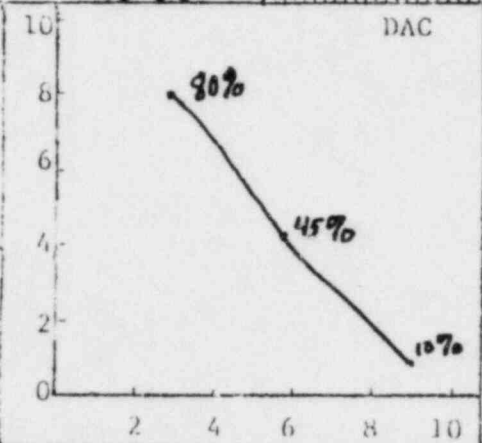
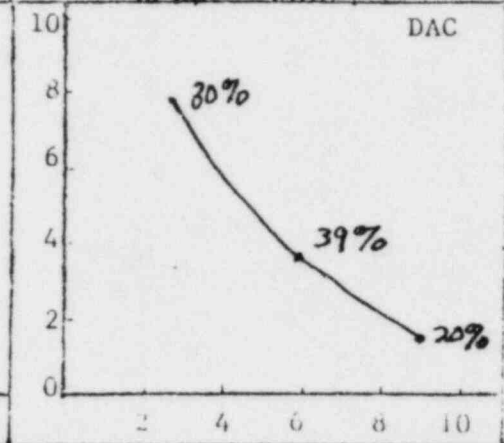
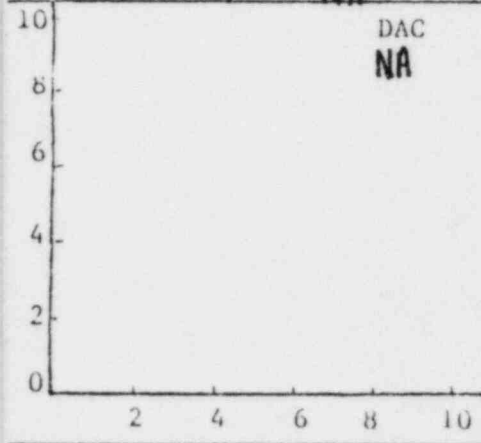
Transducer	30°	45°	60°	Instrument			
	S/N	<i>NA</i>	<i>M04140</i>	<i>NA</i>	Mfr.	<i>Sonic</i>	Model
Size	<i>↓</i>	<i>4 1/2"</i>	<i>↓</i>	S/N	<i>780836</i>	RepRate	<i>1K</i>
Frequency	<i>↓</i>	<i>2.25 MHz</i>	<i>↓</i>	Reject	<i>OFF</i>	Filter	<i>OFF</i>
Beam Angle	<i>↓</i>	<i>45°</i>	<i>↓</i>	Damp	<i>Min.</i>	Coax	<i>6'</i>
				Freq.	<i>2.25 MHz</i>	Video	<i>Norm.</i>

Calibration 0°

2 & 5 Scan

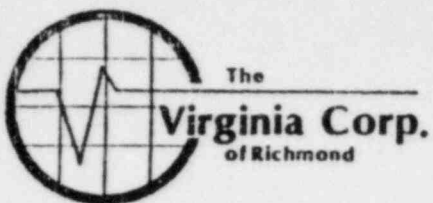
7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks					
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°	
											In	Out	In	Out	In	Out
<i>1T</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3</i>	<i>NA</i>		<i>80%</i>	<i>3</i>	<i>NA</i>		<i>NA</i>	<i>NA</i>	<i>7:45</i>	<i>9:30</i>	<i>NA</i>	<i>NA</i>
<i>2T</i>	<i>↓</i>	<i>↓</i>	<i>39%</i>	<i>6</i>	<i>↓</i>		<i>45%</i>	<i>6</i>	<i>↓</i>		<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>
<i>3T</i>	<i>↓</i>	<i>↓</i>	<i>20%</i>	<i>9</i>	<i>↓</i>		<i>10%</i>	<i>9</i>	<i>↓</i>		<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>
Ref. dB	<i>NA</i>		<i>40 DB.</i>				<i>46 DB</i>									



Additional Comments/Sketch

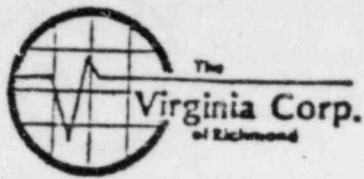
D. Payne ANEE 6/1/82



Ultrasonic Examination Report - Continuation Sheet Page of

Customer <i>L P+L</i>	Plant <i>Waterford</i>	Unit <i>*3</i>	Loop/Zone <i>2/46</i>	Isd/Drawing No. <i>Zone 46 Rev 2 EC-0</i>
Procedure <i>ISI-2.2 Rev. EC-1</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME II B</i>	VCR Supervisor <i>Manuel L. Jones</i>	Date <i>5-20-82</i>
Component/Piping System <i>Feed water</i>	Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-125</i>	Couplant: Type & Batch # <i>Sonotrace 40 Batch 8119</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>46-004</i>	<i>NA</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>NA</i>		<i>Clean</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	
<i>46-006</i>	<i> </i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i> </i>		<i>Clean</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	
<i>46-008</i>	<i> </i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i> </i>		<i>Clean</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	
<i>46-009</i>	<i> </i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i> </i>		<i>Clean</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	
<i>46-010</i>	<i>↓</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>↓</i>		<i>Clean</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	



D. Payne ANII 6/1/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP 7L	Plant WATERFORD	Unit 3	Loop/Zone 2, 46
Component/Piping System FEEDWATER	Examiner/Level BURLINGAME III	Date 5-21-82	
Procedure ISI-2.5 REV. 0	Iso/Drawing No. ZONE 46, REV. 2 FC-0	VCR Supervisor Daneel Jones	Continuation Sheet Attached [1] Yes [] No

Equipment

Instrument	Transducer		Calibration
Mfgr. <i>SONIC</i>	Mfgr. <i>PARAMETRICS</i>	Size <i>1/2"</i>	Cal. Block <i>UT-124</i>
Model <i>FT5-MK1</i>			Cal. Block
S/N <i>05304E</i>	Freq. <i>2.25 MHz</i>		Range Cal. <i>1" = 7 DIV.</i>
Reject <i>OFF</i>	Serial No. <i>44651</i>		Calibration Checks <i>0740</i> <i>0830</i>
Damp. <i>ON</i>	Coax. Cable <i>6' TWIN COAX</i>		
Freq. <i>2.0 MHz</i>	Gain <i>45 dB G</i>		
Rep. Rate <i>1000</i>			
Filter <i>H1</i>			
Video <i>NORMAL</i>			
Couplant <i>SONOTRACE 40, 2124</i>			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
46-001	12	1.028	.914	1.028	46-002	12	.957	1.228	.914
	2	1.000	.914	1.057		2	1.028	1.343	.914
	4	1.000	.971	1.028		4	1.028	1.171	.971
	6	1.000	.971	1.057		6	.971	1.114	.971
	8	1.071	.971	1.055		8	.928	1.251	1.000
	10	1.085	.728	1.057		10	.928	1.385	.728

Sketch/Identification



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Ultrasonic Examination Report *D. Payne ANSI 6/1/82*

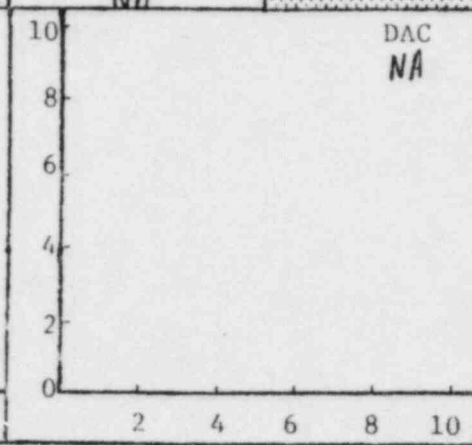
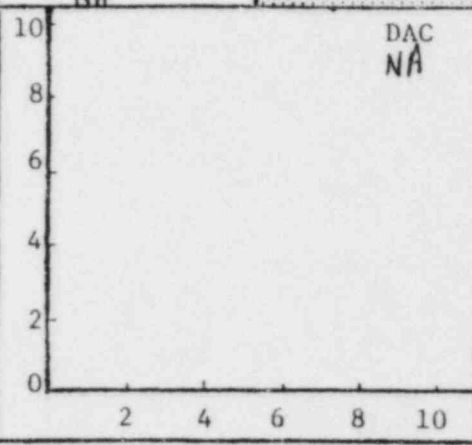
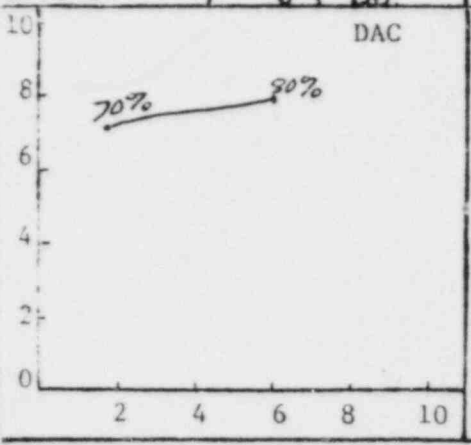
Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>#3</i>	Loop/Zone <i>2/46</i>	Iso/Drawing No. <i>Zone 46 Rev 2 FC-0</i>
Procedure <i>ISI-2.2 Rev 0 FC-1</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME II</i>	VCR Supervisor <i>Wanil Dene</i>	Date <i>5-21-82</i>
Component/Piping System <i>Feed water</i>	Pipe Size <i>18"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>WT-174</i>	Couplant: Type <i>Sono 40</i> Batch No. <i>819</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *1*

Transducer	0°	45°	60°	Instrument			
	S/N	<i>KB2897</i>	<i>NA</i>	<i>NA</i>	Mfr.	<i>Sonic</i>	Model
Size	<i>1/2"</i>	<i>I</i>	<i>I</i>	S/N	<i>01610 E</i>	RepRate	<i>1K</i>
Frequency	<i>5 MHz</i>	<i>I</i>	<i>I</i>	Reject	<i>OFF</i>	Filter	<i>OFF</i>
Beam Angle	<i>0°</i>	<i>I</i>	<i>I</i>	Damp	<i>Min.</i>	Coax	<i>6'</i>
				Freq.	<i>5 MHz</i>	Video	<i>Norm.</i>

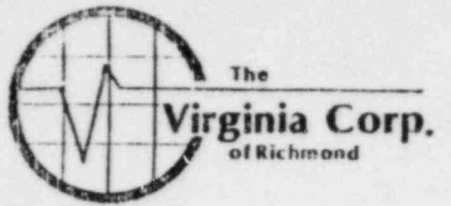
Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1/4 T</i>	<i>70%</i>	<i>2</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>		<i>NA</i>	<i>NA</i>	<i>NA</i>		<i>8:05</i>	<i>10:00</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4 T</i>	<i>80%</i>	<i>6</i>														
Ref. dB	<i>69 DB</i>		<i>NA</i>				<i>NA</i>									



Additional Comments/Sketch

Dr. Payne ANEI 6/1/82

Ultrasonic Examination Report - Continuation Sheet Page _____ of _____



Customer LP & L	Plant Waterford	Unit # 3	Loop/ Zone 2/ 46	Iso/Drawing No. Zone 46 Rev. 2 EC-0
Procedure ISE-2.2 Rev. A FC-1	Exam Surface OD	Examiner/Level BURLINGAME II B	VCR Supervisor <i>Daniel J. Jones</i>	Date 5-21-82
Component/Piping System Feed water	Pipe Size 18"	Weld Type Butt	Cal. Block UT-124	Complant: Type & Batch # Sonotrace 40 # 8119

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
46-001	Yes	NA	NA	NA	Yes		Clean	Ground	NI	Sat.	
46-002	Yes	↓	↓	↓	Yes		Clean	Ground	NI	Sat.	



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Ultrasonic Examination Report

To: Pam ANIE 6/1/82

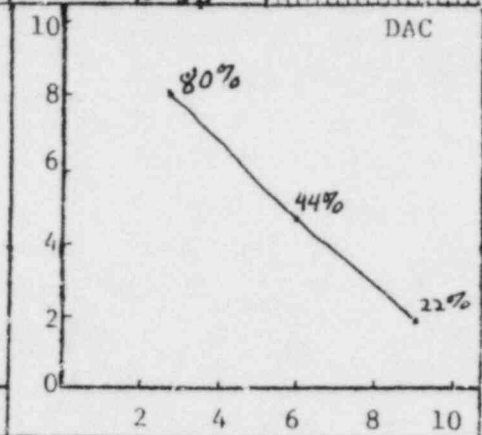
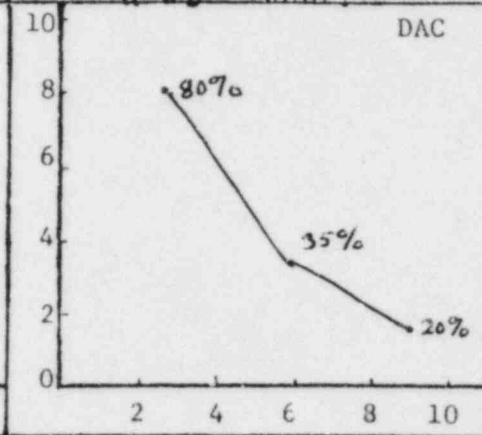
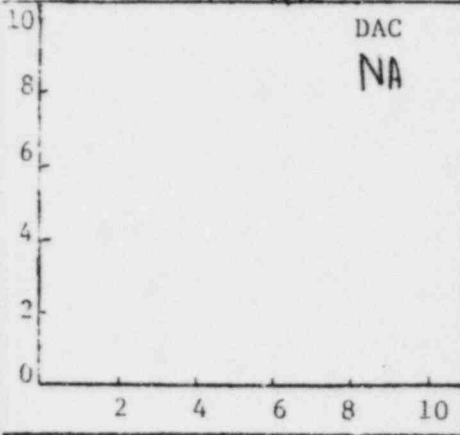
Customer <i>LP-4</i>	Plant <i>Waterford</i>	Unit <i>*3</i>	Loop/Zone <i>2/46</i>	Iso/Drawing No. <i>Zone 46 Rev. 2 FC-0</i>
Procedure <i>ISI-22 Rev D FC-1</i>	Exam Surface	Examiner/Level <i>BURLINGAME III</i>	VCR Supervisor <i>W. Daniel Jones</i>	Date <i>5-21-82</i>
Component/Piping System <i>Feed water</i>	Pipe Size <i>18"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-124</i>	Couplant: Type <i>Sono 40</i> Batch No <i>8119</i>

Continuation Sheet Attached
 Yes No

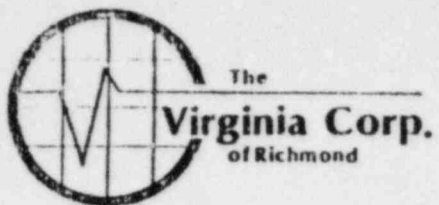
Field Changes:
 Yes No
 If Yes, Number *1*

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	NA	M04140	NA	Mfr.	Sonic	Model	Mark I
		1/2"		S/N	780836	RepRate	IK
		2.25 MHz		Reject	OFF	Filter	OFF
		45°		Damp	Min.	Coax	12'
			Freq.	2.25 MHz	Video	Norm	

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
					NA	NA			NA	NA	NA	NA	NA	NA	NA	NA
1T	NA	NA	80%	3	NA		80%	3.2	NA							
2T			35%	6			44%	6.2								
3T			20%	9			22%	9.3								
Ref. dB	NA		41 DB				45 DB									



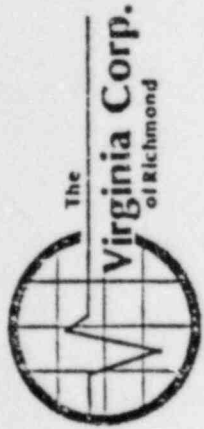
Additional Comments/Sketch



Ultrasonic Examination Report - Continuation Sheet Page of

Customer LP+L		Plant Waterford		Unit # 3	Loop/Zone 2/46	Iso/Drawing No. Zone 46 Rev. 2 EC-0	
Procedure ISI-2.2 Rev. A FC-1		Exam Surface OD	Examiner/Level BURLINGAME II AS		VCR Supervisor Daniel Jones		Date 5-21-82
Component/Piping System Feedwater			Pipe Size 18"	Weld Type Butt	Cal. Block UT-124	Couplant: Type & Batch # Sonttrace 46 # 8119	

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
46-001	NA	Yes	Yes	Yes	NA		Clean	Ground	NI	Sat	
46-002	↓	Yes	Yes	Yes	↓		Clean	Ground	RI	Sat	SEE ATTACHMENT FIG 1 & FIG 2



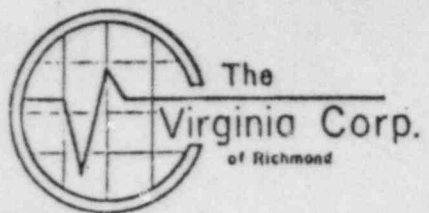
Ultrasonic Examination Report

Indication Record

D. Payne ANEI 6/1/82

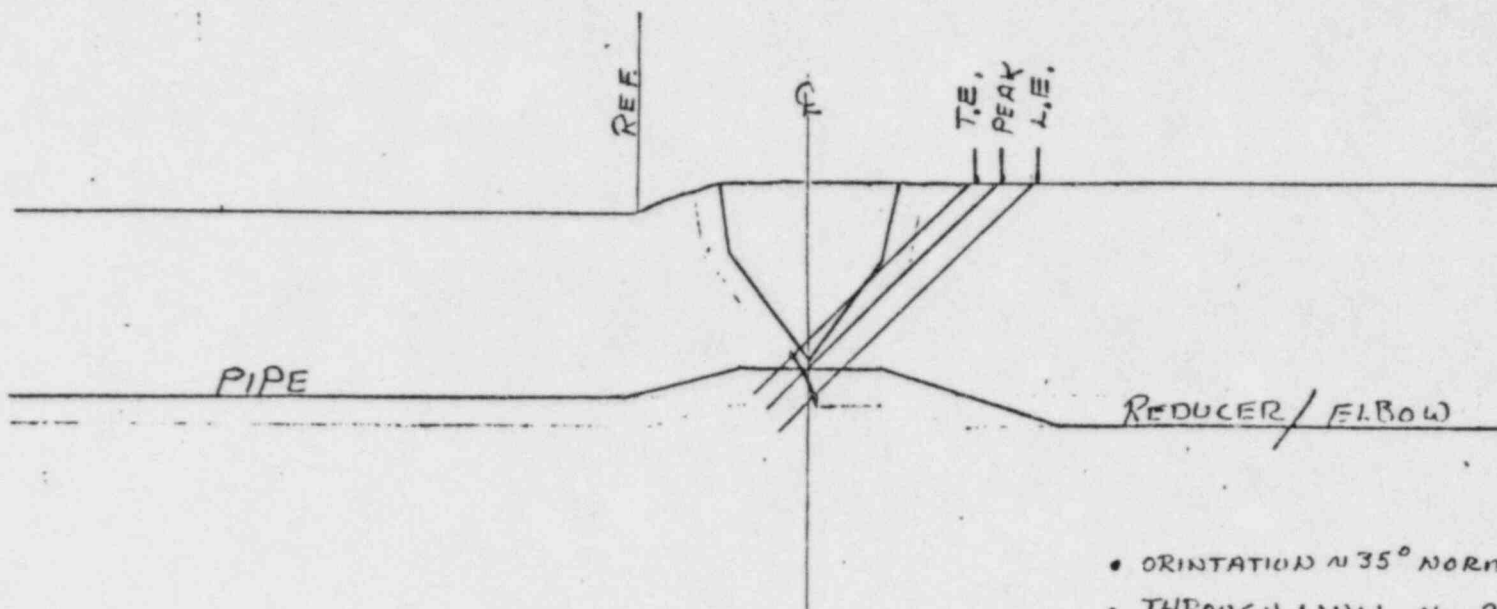
Customer: L P & L
 Procedure: 151-2.2, REV. 0, FC-1
 Component/Piping System: FEEDWATER
 Plant: WATERFORD
 Examiner/Level: BURLINGAME II
 VCR Supervisor: [Signature]
 Date: 5-31-82
 Unit: 3
 Loop: 2
 ISO Drawing No.: ZONE 46, REV. 2, FCO
 Cal. Standard No./Thickness: UT-124, 1.0"

Weld No.	Ind No.	Max. % DAC	Indication Length		Minimum Depth S.U. Pos.	Sweep Reading	Maximum Depth S.U. Pos.	Sweep Reading	Beam Angle	Beam Dir.	Base Metal Thickness 2 Side	Weld Thick.	Base Metal Thickness 5 Side	Remarks
			From	To										
4-002	1	60%	4"	13"	1 3/4	2.8	2 1/4	3.4	45°	R	1.785"	.775"	.928"	SEE FIG. 172

SECTION ~~X~~ XI

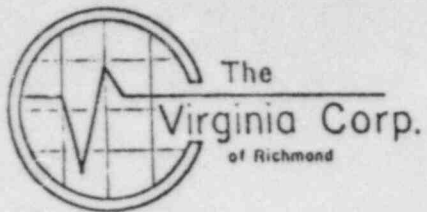
PEAK $1\frac{7}{8}$ " @ 3 DIV.
L.E. $2\frac{1}{2}$ " @ 3.4 DIV.
T.E. $1\frac{3}{4}$ " @ 2.8 DIV.

TERMINATION POINTS
4" FROM DATUM
13" FROM DATUM



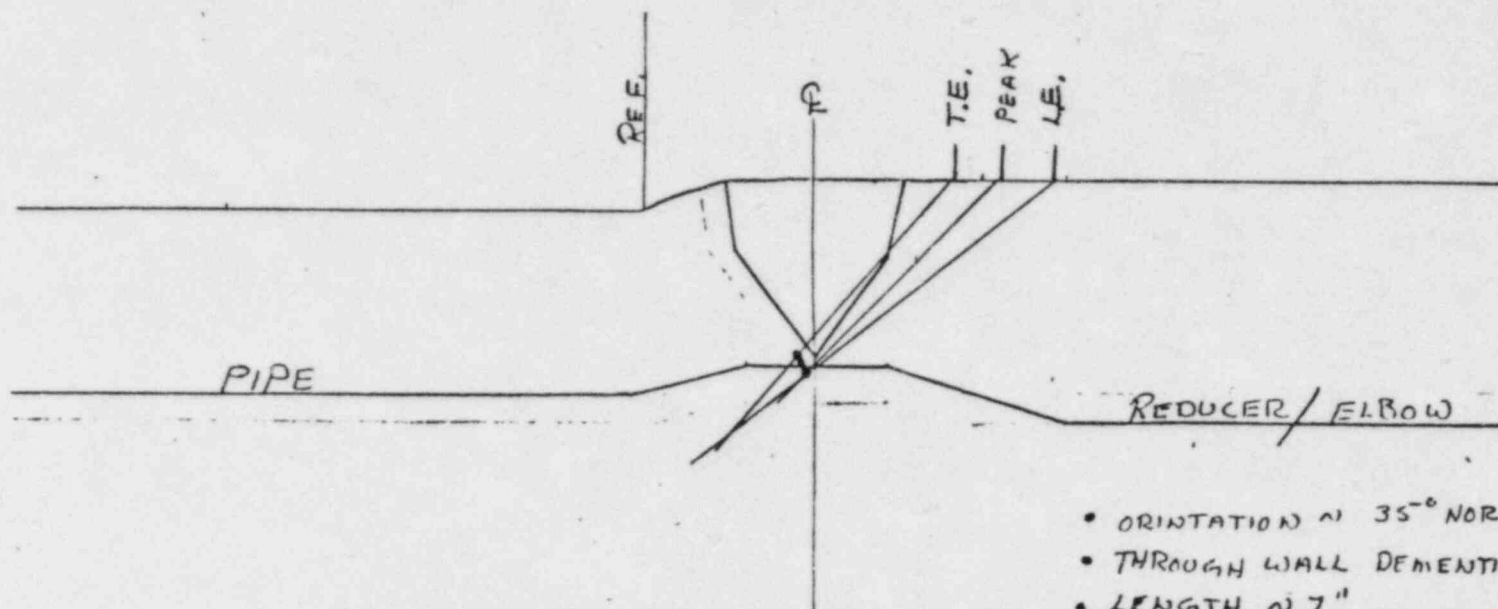
- ORIENTATION $\approx 35^\circ$ NORMAL TO CL
- THROUGH WALL $\approx .200$ "
- PEAK REFLECTION 60% DAC.

WELD 46-002



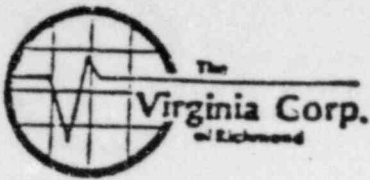
PEAK $1\frac{7}{8}'' @ 3 \text{ DIU.}$
L.E. $2\frac{3}{16}'' @ 2.6 \text{ DIU.}$
T.E. $1\frac{5}{8}'' @ 3.6 \text{ DIU.}$

TERMINATION POINTS
4" FROM DATUM
13" FROM DATUM



WELD 46-002

- ORIENTATION $\sim 35^\circ$ NORMAL TO CL
- THROUGH WALL DIMENSION $\sim .120''$
- LENGTH $\sim 7''$
- PEAK REFLECTION 60% DAC
- EXACT Q AND THICKNESS ALONG THE REFLECTOR LENGTH VARIES ABOUT $.100''$; ONLY A AVERAGE IS SHOWN.



D. Payne ANEZ 6/2/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer L.P.+L	Plant Waterford	Unit # 3	Loop/Zone 2/46
Component/Piping System Main feed header B INSIDE COU		Examiner/Level Kevin White/II	Date 5-29-82
Procedure ISI-2.S.R.O.	Iso/Drawing No. Zone 46.R.2	VCR Supervisor Daniel Jones	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument	Transducer	Calibration
Mfgr. Sonic	Mfgr. Aerotech	Cal. Block UT-125
Model Mark I	Size 1/2"	Cal. Block
S/N 01610E	Freq. 2.25 Mhz	Range Cal. 1.786"
Reject off	Serial No. KB2728	Calibration Checks IN: 10:15 AM OUT: 11:40 AM
Damp. Min		
Freq. 2	Coax. Cable 6' BNC-PC	
Rep. Rate 1K	Gain 64db	
Filter Med		
Video Norm.		
Couplant Sonotrace 40, Lot # 8124		

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
46-011	2	1.250	1.357	1.143	46-015	2	1.250	1.107	1.314
	4	1.250	1.393	1.071		4	1.214	1.107	1.393
	6	1.179	1.314	1.071		6	1.214	1.071	1.429
	8	1.214	1.314	1.171		8	1.179	1.107	1.393
	10	1.250	1.314	1.171		10	1.179	1.071	1.357
	12	1.250	1.429	1.071		12	1.179	1.107	1.286
46-014	2	1.250	1.314	1.314	46-016	2	1.107	1.357	1.143
	4	1.286	1.314	1.143		4	1.107	1.314	1.143
	6	1.214	1.429	1.036		6	1.143	1.286	1.107
	8	1.214	1.393	1.036		8	1.250	1.314	1.071
	10	1.0714	1.314	1.179		10	1.143	1.314	1.036
	12	1.000	1.314	1.179		12	1.107	1.314	1.107

Sketch/Identification



The
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Ultrasonic Examination Report *D. Payne ANZI 10/2/82*

Customer L.P.+L	Plant Waterford	Unit #3	Loop/Zone 2 / 46	Iso/Drawing No. Zone 46, R.2.
Procedure <i>@ 9-21-82</i> ISI-2 T.R.O.F.C	Exam Surface O.D.	Examiner/Level Kevin White / II	VCR Supervisor Daniel Jones	Date 5-29-82
Component/Piping System Main feed header B "Inside Cont."	Pipe Size 20"	Weld Type Butt	Cal. Block # UT-125	Couplant: <i>Sonotrace</i> Type 40 <i>9-21-83 8/2/84</i>

Continuation Sheet Attached
Yes No

Field Changes:
Yes No
If Yes, Number **2**

Transducer				Instrument			
0°	45°	60°		Mfr.	Model	Mark I	
S/N	NA	NA		Sonics			
Size	1/2"			S/N	01610E	RepRate	1K
Frequency	2.25MHz			Reject	off	Filter	Med
Beam Angle	0°			Damp	Min	Coax	6' BNC-1
				Freq.	2	Video	<i>Norm</i>

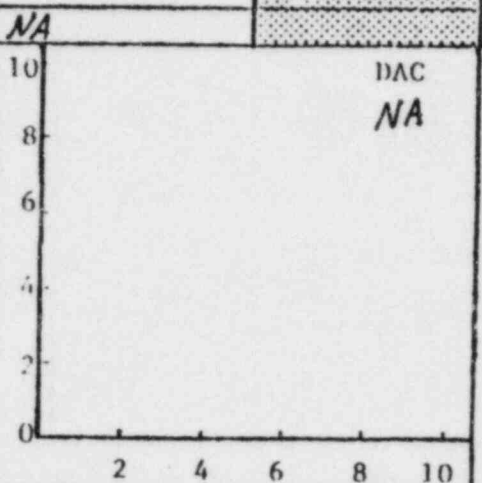
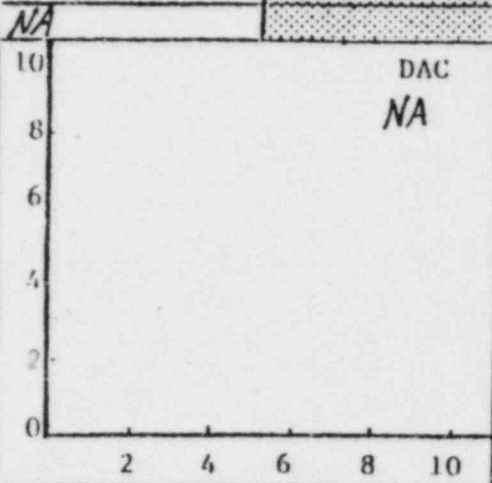
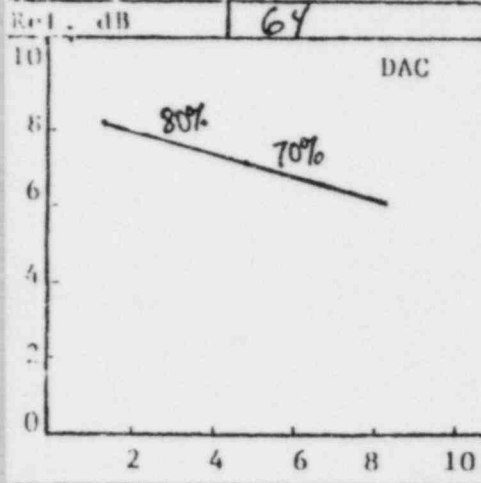
Calibration 0°

2 & 5 Scan

7 & 8 Scan

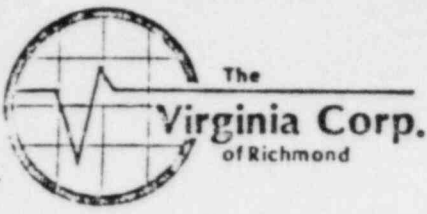
Calibration Checks *9-21-83*

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks					
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°	
											In	Out	In	Out	In	Out
1/4 T	80%	1.7	NA	NA	NA		NA	NA	NA		10:15 AM	11:40 AM	NA	NA	NA	NA
3/4 T	70%	4.9														



Additional Comments/Sketch
None

R. Payne ANII 1/82



Ultrasonic Examination Report - Continuation Sheet Page of

Customer L.P.H.	Plant Waterford	Unit # 3	Loop/ Zone 2/46	Iso/Drawing No. Zone 46, P.2
Procedure @ 9-1-83 ISI-5-TROFC-2	Exam Surface O.D.	Examiner/Level Kevin White/II	VGR Supervisor Daniel Jones	Date 5-29-82
Component/Piping System Main feed header B	Pipe Size 20"	Weld Type Butt	Cal. Block UT-125	Coplant: Type & Batch # Sonotrace 40, Batch #8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
46-011	Yes	NA	NA	NA	Yes		Smooth	Smooth	NI	Sat.	None
46-014	Yes	NA	NA	NA	Par.	O scan, partial due to the transition of the weld.	Smooth	Smooth	NI	Sat.	None
46-015	Yes	NA	NA	NA	Par	O scan, partial due to the transition of the weld.	Smooth	Smooth	NI	Sat.	None
46-016	Yes	NA	NA	NA	Par	O scan, partial due to the transition of the weld.	Smooth	Smooth	NI	Sat.	None



D. Payne ANII 6/14/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP&L	Plant Waterford	Unit 3	Loop/Zone B1#16
Component/Piping System Main Feed Header B	Examiner/Level BURLINGAME	Date 6-10-82	
Procedure ISI 2.5, Rev. 0	Iso/Drawing No. Zone 46 Rev. 2	VCR Supervisor Daniel Jones	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. Sonic	Mfgr. KB-Aerotech	Size .50"	Cal. Block UT-125	
Model FTS Mark I			Cal. Block NA	
S/N 780236	Freq. 5 Mhz		Range Cal. 8 dir = 1.25"	
Reject off			Calibration Checks	
Damp. Min	Serial No. KB 2897		IN - 8:45 AM	
Freq. 5 Mhz	Coax. Cable 6'		OUT - 11:00 AM	
Rep. Rate 1K				
Filter hi	Gain 70 dB			
Video Norm				
Couplant Sonotrace 40, A.#3119				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
46-08	12	1.156"	1.281"	1.156"	NA	NA	NA	NA	NA
	2	1.188"	1.406"	1.188"					
	4	1.250"	1.406"	1.188"					
	6	1.156"	1.406"	1.156"					
	8	1.125"	1.437"	1.156"					
*	10	1.156"	1.469"	1.125"					

Sketch/Identification



The
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Ultrasonic Examination Report *D. Payne ANII 6/4/82*

Customer L P+L	Plant Water fold	Unit # 3	Loop/Zone 2, 45	Iso/Drawing No. ZONE 46, RAU.2 FC-0
Procedure FC-1 ISI-2.2 REV. C	Exam Surface OD	Examiner/Level BURLINGAME II	VGR Supervisor Daniel Dero	Date 6-10-82
Component/Piping System Feed water		Pipe Size 20"	Weld Type BUTT	Cal. Block # Couplant: UT-125, 125" Type <i>Seno 40</i> Batch No. 8124

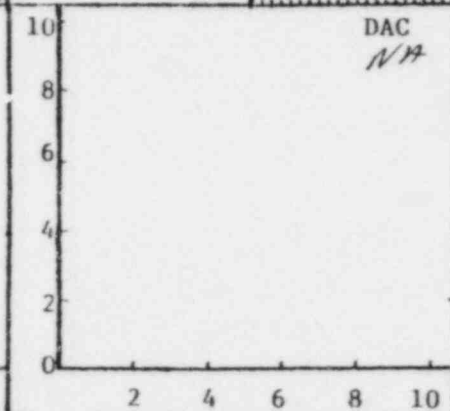
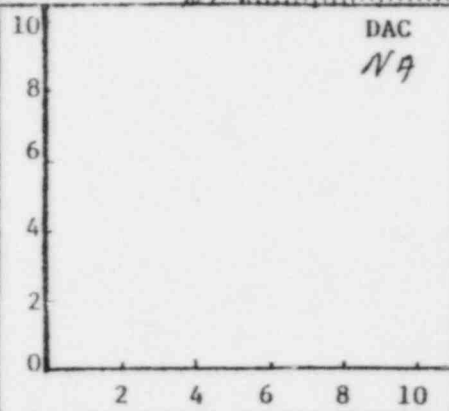
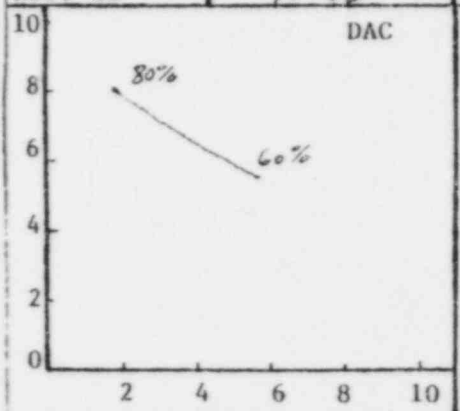
Continuation Sheet Attached
 Yes No

Field Changes:
Yes No **FC-1**

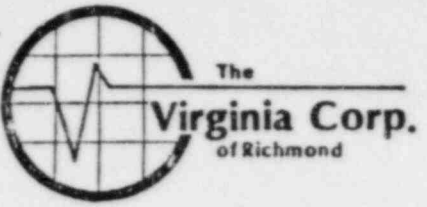
If Yes, Number

Transducer	0°	45°	60°	Instrument			
S/N	KA 2897	N/A	N/A	Mfgr.	Seno	Model	MARK I
Size	1/2"			S/N	780 836	RepRate	14
Frequency	5 MHz			Reject	OFF	Filter	off
Beam Angle	0°			Damp	MIN	Coax	10
				Freq.	5 MHz	Video	Norm.

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
Y4 T	80%	1.8	N/A	N/A	N/A			N/A	N/A	N/A		0875	1100	N/A	N/A	N/A	N/A
Y8 T	60%	5.6															
Back	100%	2.0															
Ref. dB	70 dB																



Additional Comments/Sketch



Ultrasonic Examination Report - Continuation Sheet Page of

Customer <i>LD 3L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>2, 46</i>	Iso/Drawing No. <i>ZONE 46, REV 2, FC-D</i>
Procedure <i>FC-1</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME</i>	VCR Supervisor <i>Walter Jones</i>	Date <i>6-10-82</i>
ISI-22 REV. 0			Cal. Block	Couplant: Type & Batch #
Component/Piping System <i>FEDWATER</i>	Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	<i>UT-125, 1.25"</i>	<i>SONOTRACE 40, # 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>46-018</i>	<i>YES</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>YES</i>		<i>CLEAN</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT</i>	



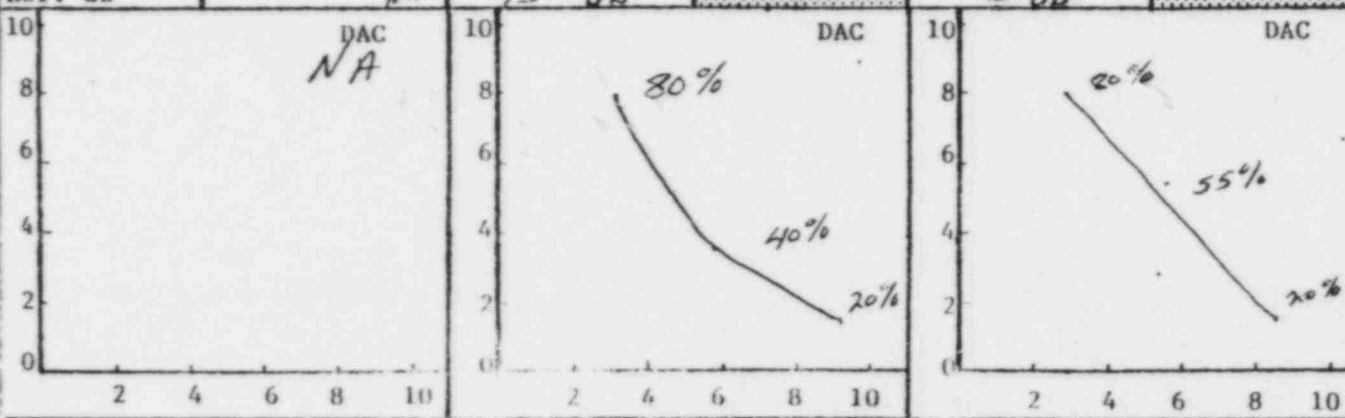
Ultrasonic Examination Report

D. Payne ANII 6/14/82

Customer L P + L		Plant Waterford		Unit #3	Loop/Zone 1/45	Iso/Drawing No. 2-DC 46, Rev. 2 FC 0	
Procedure ISI-2.2 Rev. FC1		Exam Surface OD	Examiner/Level BURLING AME		VCR Supervisor Daniel Jones		Date 6-10-82
Component/Piping System Feedwater			Pipe Size 20"	Weld Type Butt	Cal. Block & Couplant: UT-122, 1.25"		Type Some 40

Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Transducer	0°	45°	60°	Instrument			
		S/N	NA	522935	NA	Mfr.	SONIL	Model	MARK I
Field Changes: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, Number FC-1		Size		1/2"		S/N	037041E	RepRate	1K 85
		Frequency		2.25 MHz		Reject	off	Filter	off
		Beam Angle		45°		Damp	M.N.	Coax	12'

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1 T	NA	NA	80%	3	NA		80%	3.2	NA		NA	NA	0845	1055	NA	NA
2 T			40%	6			55%	5.9								
3 T			20%	9			20%	9.0								
Ref. dB		NA	43 dB				45 dB									



Additional Comments/Sketch



D. Payne ANII 6/21/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP&L	Plant Waterford	Unit 3	Loop/Zone N/A/46
Component/Piping System Main feed header B	Examiner/Level BURLINGAME II	Date 6-16-82	
Procedure ISI 2.5 REV. 0	Iso/Drawing No. ZONC 46 R. 2	VCR Supervisor Daniel Jones	Continuation Sheet Attached [] Yes [x] No

Equipment

Instrument	Transducer		Calibration
Mfgr. SONIC	Mfgr. SONIC	Size 5"	Cal. Block UT-119
Model Mark I			Cal. Block
S/N 01610F	Freq. 2.25 MHz		Range Cal. 70 DIVISIONS
Reject OFF			Calibration Checks
Damp. MIN	Serial No. KR2708		
Freq. 2			1300
Rep. Rate 1X	Coax. Cable 6'		1400
Filter off			
Video Normal	Gain 64 dB		
Couplant Sanotrace 40 #8124			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
46-017	12	1.125	1.125	1.414					
46-017	2	1.125	1.157	1.382					
46-017	4	1.125	1.157	1.350					
46-017	6	1.125	1.125	1.317					
46-017	8	1.157	1.092	1.317					
46-017	10	1.092	1.125	1.382					

Sketch/Identification



Ultrasonic Examination Report

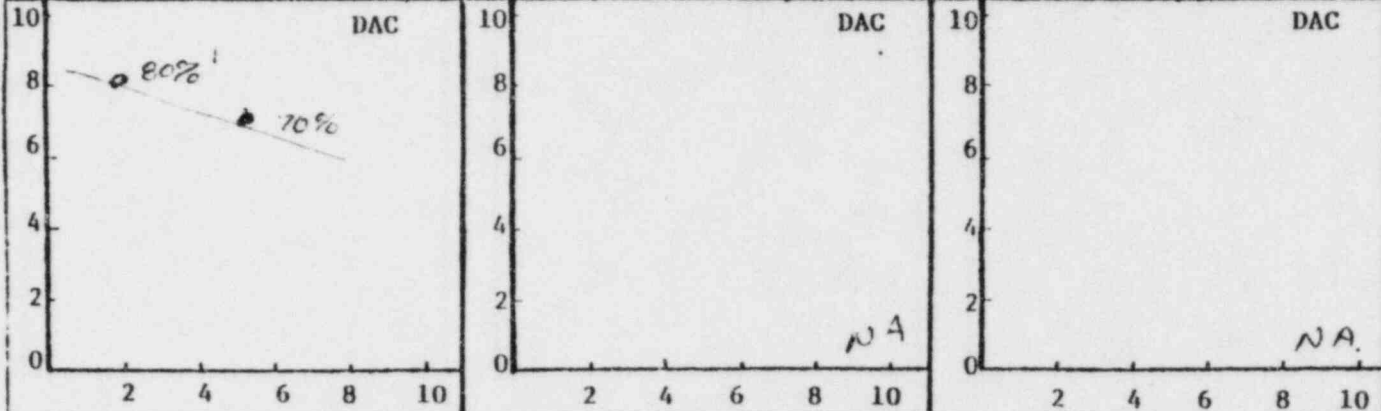
Customer <i>LP3L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>2 46</i>	Iso/Drawing No. <i>ZONE #16, REV. #2</i>
Procedure <i>ISI-3.2, REV. 0, FC-1</i>	Exam Surface <i>OD</i>	Examiner/Level <i>BURLINGAME II</i>	VCR Supervisor <i>Wanil Jones</i>	Date <i>6-16-82</i>
Component/Piping System <i>FEEDWATER</i>		Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-125</i>
		Couplant: <i>SONOTRACE</i>		Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

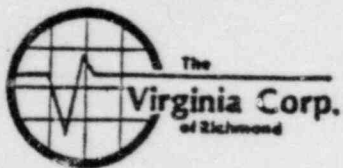
Field Changes:
 Yes No *FC-1*
 If Yes, Number

Transducer	0°			45°			60°			Instrument			
	S/N	<i>KB2726</i>	<i>NA</i>	<i>NA</i>	Mfr.	<i>SONIC</i>	Model	<i>FTS-MX1</i>	S/N	<i>01610E</i>	RepRate	<i>1000</i>	
	Size	<i>1/2"</i>			Reject	<i>OFF</i>	Filter	<i>HI</i>	Damp	<i>MIN</i>	Coax	<i>6</i>	
	Frequency	<i>2.25 MHz</i>			Freq.	<i>2 MHz</i>	Video	<i>NORM.</i>					
	Beam Angle	<i>0</i>											

Calibration 0°			2 & 5 Scan					7 & 8 Scan					Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°		
					Scribe Line	50% DAC	Scribe Line			50% DAC	In	Out	In	Out	In	Out			
																	NA	NA	NA
<i>1/4T</i>	<i>80%</i>	<i>1.7</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>1300</i>	<i>1400</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>1/2T</i>	<i>70%</i>	<i>4.9</i>																	
<i>BACK</i>	<i>>100%</i>	<i>7</i>																	
Ref. dB	<i>63dB G</i>																		



Additional Comments/Sketch



D. Payne ANII 7/7/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>2/46</i>
Component/Piping System <i>Mainfeed Header B</i>	Examiner/Level <i>David L. Tolson III</i>	Date <i>7/2/82</i>	
Procedure <i>1512.5 REV. 0</i>	Iso/Drawing No. <i>Zone 46 REV. 2FC2</i>	VCR Supervisor <i>Robert Jones</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>Seaic</i>	Mfgr. <i>KB-Aerotech</i>	Size <i>.50"</i>	Cal. Block <i>UT-125</i>	
Model <i>Mark I</i>			Cal. Block <i>N/A</i>	
S/N <i>05473E</i>	Freq. <i>225 MHz</i>		Range Cal. <i>2.02" at 10.0</i>	
Reject <i>OFF</i>	Serial No. <i>KB-2728</i>		Calibration Checks	
Damp. <i>Min.</i>	Coax. Cable <i>6' Dual</i>		<i>Initial 9:07</i>	
Freq. <i>2.0 MHz</i>	Gain <i>64 dB</i>		<i>Final 9:47</i>	
Rep. Rate <i>1K</i>				
Filter <i>OFF</i>				
Video <i>Norm</i>				
Couplant <i>Sonotrace 40 # R124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>46-020</i>	<i>12</i>	<i>1.23"</i>	<i>1.25"</i>	<i>1.41"</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
<i>46-020</i>	<i>2</i>	<i>1.23"</i>	<i>1.23"</i>	<i>1.37"</i>					
<i>46-020</i>	<i>4</i>	<i>1.21"</i>	<i>1.23"</i>	<i>1.33"</i>					
<i>46-020</i>	<i>6</i>	<i>1.23"</i>	<i>1.23"</i>	<i>1.37"</i>					
<i>46-020</i>	<i>8</i>	<i>1.25"</i>	<i>1.27"</i>	<i>1.38"</i>					
<i>46-020</i>	<i>10</i>	<i>1.21"</i>	<i>1.27"</i>	<i>1.41"</i>					

Sketch/Identification



Ultrasonic Examination Report

Dr. Payne ANII 7/7/82

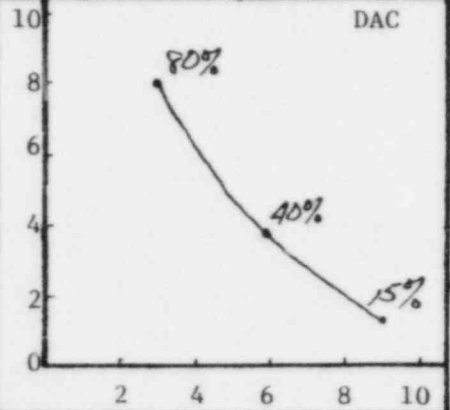
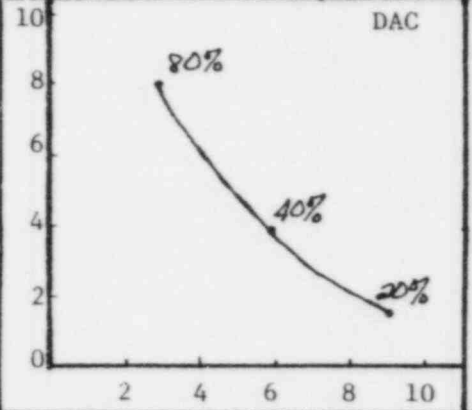
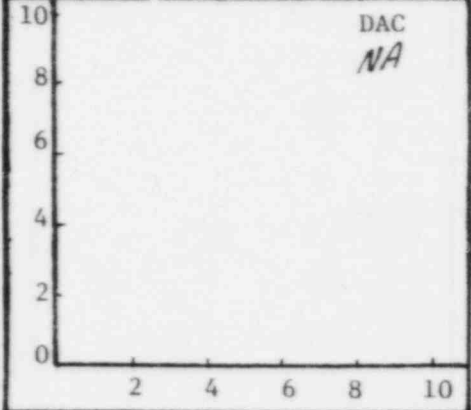
Customer <i>L. P. & L.</i>		Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>2/46</i>	Iso/Drawing No. <i>Zone 46, Rev. 2, F.C. 2</i>
Procedure <i>F.C.1 ISI-2.2, Rev. 0</i>	Exam Surface <i>O.O.</i>	Examiner/Level <i>David T. Tolson</i>		VCA Supervisor <i>Daniel O. Jensen</i>	Date <i>7-2-82</i>
Component/Piping System <i>Main Feed Header B</i>		Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>U.T. 125</i>	Couplant: <i>Sonotrol</i> Type <i>28</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

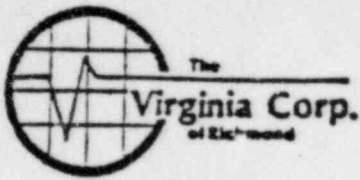
Field Changes:
 Yes No
 If Yes, Number *F.C. 1*

Transducer	0°	45°	60°	Instrument			
	<i>NA</i>	<i>522935</i>	<i>NA</i>	Mfr.	<i>Sonic</i>	Model	<i>Mark I</i>
S/N				S/N	<i>01610E</i>	RepRate	<i>1K</i>
Size		<i>.5"</i>		Reject	<i>Off</i>	Filter	<i>Off</i>
Frequency		<i>2.25 MHz</i>		Damp	<i>Min.</i>	Coax	<i>12' BNC to BNC</i>
Beam Angle	<i>~</i>	<i>45°</i>	<i>~</i>	Freq.	<i>2.0 MHz</i>	Video	<i>Norm.</i>

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	0°		45°		60°	
					Scribe Line	50% DAC	NA			In	Out	In	Out	In	Out
	<i>NA</i>	<i>NA</i>			<i>NA</i>	<i>NA</i>	<i>NA</i>			<i>NA</i>	<i>NA</i>	<i>9:00</i>	<i>9:48</i>	<i>NA</i>	<i>NA</i>
<i>1 T</i>			<i>80%</i>	<i>3.0</i>				<i>80%</i>	<i>3.0</i>						
<i>2 T</i>			<i>40%</i>	<i>6.0</i>				<i>40%</i>	<i>6.0</i>						
<i>3 T</i>			<i>20%</i>	<i>9.0</i>				<i>15%</i>	<i>9.1</i>						
					<i>~</i>	<i>~</i>	<i>~</i>			<i>~</i>	<i>~</i>	<i>~</i>	<i>~</i>	<i>~</i>	<i>~</i>
Ref. dB			<i>41 db</i>					<i>41 db</i>							



Additional Comments/Sketch



M.R. Martin, ANEI 9/10/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer <i>LP & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>2 46</i>
Component/Piping System <i>CONT. MAIN FEED HEADER B INSIDE</i>		Examiner/Level <i>Tony Longenecker II</i>	Date <i>9-3-82</i>
Procedure <i>I.S.I. 2.5 R-0</i>	Iso/Drawing No. <i>ZONE 46 R-2, F.C.3</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached [] Yes [<input checked="" type="checkbox"/>] No

Equipment

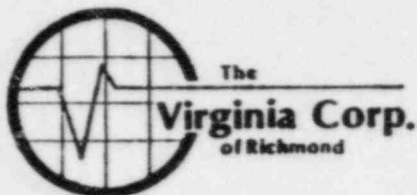
Instrument		Transducer		Calibration
Mfgr. <i>SONIC</i>	Mfgr. <i>K-B AEROTECH</i>	Size <i>.5" DIA.</i>	Cal. Block <i>UT-125</i>	
Model <i>MARK 1</i>			Cal. Block	
S/N <i>01058E</i>	Freq. <i>2.25 MHZ.</i>		Range Cal. <i>1.25" @ 7.0</i>	
Reject <i>OFF</i>			Calibration Checks	
Damp. <i>MIN.</i>	Serial No. <i>K-B 2725</i>		<i>CAL. IN 9:30</i>	
Freq. <i>2. MHZ.</i>	Coax. Cable <i>6'</i>		<i>CAL. OUT 11:00</i>	
Rep. Rate <i>3K</i>				
Filter <i>H1</i>	Gain <i>68 dB</i>			
Video <i>NORM</i>				
Couplant <i>SONOTRACE 40 #8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>46-012</i>	<i>12</i>	<i>1.250</i>	<i>1.392</i>	<i>1.464</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>46-012</i>	<i>2</i>	<i>1.250</i>	<i>1.392</i>	<i>1.429</i>					
<i>46-012</i>	<i>4</i>	<i>1.196</i>	<i>1.411</i>	<i>1.446</i>					
<i>46-012</i>	<i>6</i>	<i>1.214</i>	<i>1.411</i>	<i>1.482</i>					
<i>46-012</i>	<i>8</i>	<i>1.179</i>	<i>1.429</i>	<i>1.500</i>					
<i>46-012</i>	<i>10</i>	<i>1.250</i>	<i>1.429</i>	<i>1.500</i>					

Sketch/Identification

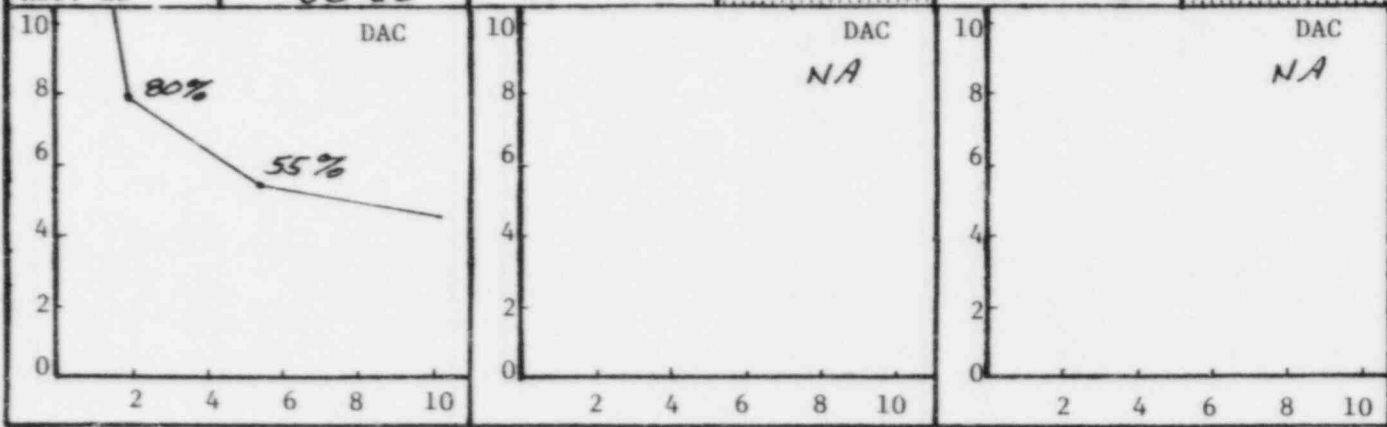
Ultrasonic Examination Report



Customer <i>LP & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>2 46</i>	Iso/Drawing No. <i>ZONE 46 R-2, FC.3</i>
Procedure <i>ISI 2.2 RO, RC.2</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>New Longenecker II</i>	VCR Supervisor <i>Denise J. ...</i>	Date <i>9-3-82</i>
Component/Piping System <i>CONT. MAIN FEED HEADER B INSIDE</i>	Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block # <i>UT-125</i>	Couplant: <i>SONOTRACE</i> Type <i>40</i> Batch No. <i>8129</i>

Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transducer	0°	45°	60°	Instrument			
	S/N	<i>KB2728</i>	<i>NA</i>	<i>NA</i>	Mfgr.	<i>SONIC</i>	Model	<i>MARK I</i>
	Size	<i>.5" DIA.</i>			S/N	<i>01058E</i>	RepRate	<i>3K</i>
	Frequency	<i>2.25 MHZ</i>			Reject	<i>OFF</i>	Filter	<i>H1</i>
Field Changes: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, Number <i>2</i>	Beam Angle	<i>0°</i>			Damp	<i>MIN.</i>	Coax	<i>6'</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1/4 T</i>	<i>80%</i>	<i>1.7</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>9:30</i>	<i>11:00</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4 T</i>	<i>55%</i>	<i>5.1</i>														
<i>1 T</i>	<i>NA</i>	<i>7.0</i>														
Ref. dB	<i>68 dB</i>															



Additional Comments/Sketch

Ultrasonic Examination Report



Customer L P & L	Plant WATERFORD	Unit 3	Loop/Zone 2 46	Iso/Drawing No. ZONE 46 R-2, F.C.3
Procedure K.S.I. 22 R-0, F.C.2	Exam Surface O.D.	Examiner/Level Navy Longenecker II	VCR Supervisor Ronald Jensen	Date 9-3-82
Component/Piping System CONT. MAIN FEED HEADER B INSIDE	Pipe Size 20"	Weld Type BUTT	Cal. Block UT-125	Couplant: SONOTRACE Type 40 Batch No. 8129

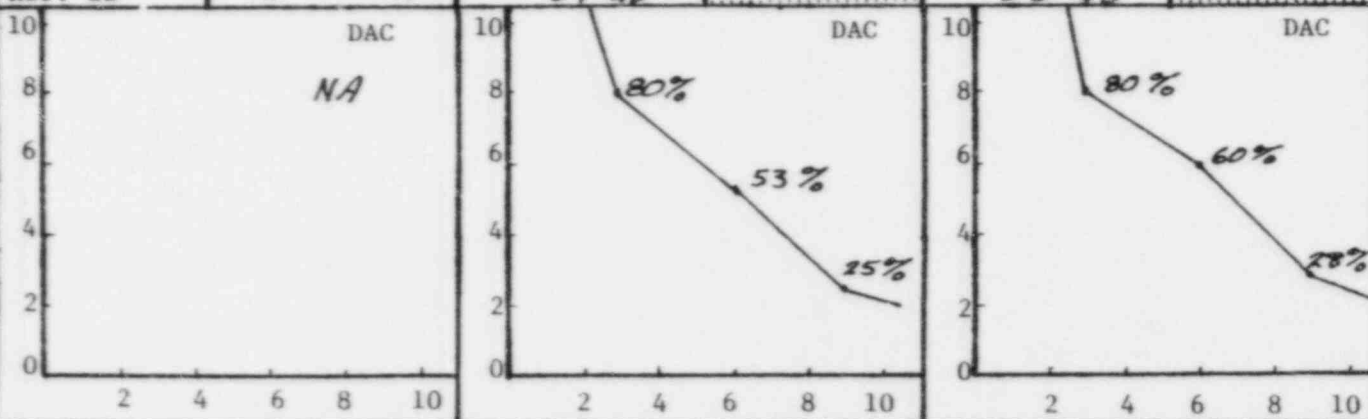
Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number 2

Transducer	0°	45°	60°	Instrument			
S/N	NA	D12063	NA	Mfgr.	K-B	Model	USL-37
Size		.5" DIA.		S/N	210021	RepRate	1K
Frequency		2.25 MHz		Reject	OFF	Filter	H/
Beam Angle		44°		Damp	FIXED	Coax	6'
				Freq.	2.5 MHz	Video	NA

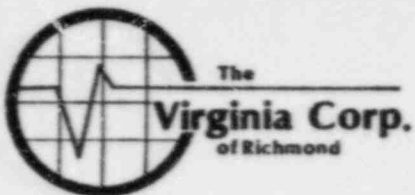
Calibration 0° 2 & 5 Scan 7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks								
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°				
											In	Out	In	Out	In	Out			
1 T	NA	NA	80%	3.0	NA	NA NA	80%	3.0	NA	NA NA									
2 T			53%	6.0			60%	6.0											
3 T			25%	9.0			28%	9.0											
Ref. dB			34 db				38 db												



Additional Comments/Sketch

M.R. Martin, ANEI 9/10/82



Ultrasonic Examination Report - Continuation Sheet Page 3 of 4

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>2/46</i>	Iso/Drawing No. <i>Zone 46 R.D.F.C. 3</i>
Procedure <i>ASTM 2-2 RD EC3</i>	Exam Surface <i>OD</i>	Examiner/Level <i>Say Hongenecher II</i>	VCR Supervisor <i>David Jones</i>	Date <i>9-3-82</i>
Component/Piping System <i>Main Feed Header B - Inside</i>	Inside	Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block Couplant: Type & Batch # <i>UT-25 Scotruse 40 B. #9124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>46-D12</i>	<i>NA</i>	<i>Yes</i>	<i>Yes</i>	<i>Par</i>	<i>Par</i>	<i>Approx. 12% loss of contact in 0° 7 & 8 scans due to O.D. weld geometry</i>	<i>clean</i>	<i>ground</i>	<i>RI</i>	<i>Sat</i>	

M.R. Martin ANEI 9-10-82



Ultrasonic Examination Report

PAGE 1 of 4 Indication Record

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop <i>2</i>
Procedure <i>IST 2.2, RD, F.C.2</i>	Examiner/Level <i>Ray Longenecker III</i>	VCR Supervisor <i>Daniel</i>	Date <i>9-3-82</i>
Component/Piping System <i>Main Feed Header A - contain</i>	ISO Drawing No. <i>Zone 46 R.2, F.C.3</i>	C.I. Standard No./Thickness <i>UT-125 / 1.25"</i>	

Weld No.	Ind No.	Max. % DAC	Indication Length		Minimum Depth S.U. Sweep		Maximum Depth S.U. Sweep		Beam Angle	Beam Dir.	Base Metal Thickness		Weld Thick.	Base Metal Thickness 5 Side	Remarks
			From	To	Pos.	Reading	Pos.	Reading			2 Side	5 Side			
<i>46-013</i>	<i>1</i>	<i>797</i>	<i>50 5/8"</i>	<i>50 3/4"</i>	<i>1/4" (2)</i>	<i>3.0</i>	<i>E</i>	<i>3.1</i>	<i>0°</i>	<i>0</i>	<i>1.429"</i>	<i>1.250"</i>	<i>1.50"</i>		



M.R. Martin, ANSI 10/5/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP & L	Plant WATERFORD	Unit 3	Loop/Zone B 46
Component/Piping System MAIN FEED HEADER B-INSIDE CONT		Examiner/Level Gary Longenecker II	Date 9-28-82
Procedure ISI 2.5 R-0	Iso/Drawing No. ZONE 46 BZFC4	VCR Supervisor Daniel Jensen	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. : SONIC	Mfgr. K-B AEROTECH	Size 1.0" DIA	Cal. Block UT-37	
Model MARK I			Cal. Block	
S/N 01058E	Freq. 2.25 MHz		Range Cal. 7" @ 8.2	
Reject OFF	Serial No. 48807		Calibration Checks	
Damp. MIN.			CAL. IN 6:45	
Freq. 2.0 MHz	Coax. Cable 12'		CAL. OUT 9:20	
Rep. Rate 3K	Gain 37db			
Filter H1				
Video Norm				
Couplant SONO TRACE 40 #8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
46-021	12	*	6.915	*	NA	NA	NA	NA	NA
46-021	2		6.915						
46-021	4		6.915						
46-021	6		7.000						
46-021	8		6.915						
46-021	10		6.915						

Sketch/Identification

* UNABLE TO OBTAIN DUE TO NOZZLE RADIUS



Ultrasonic Examination Report

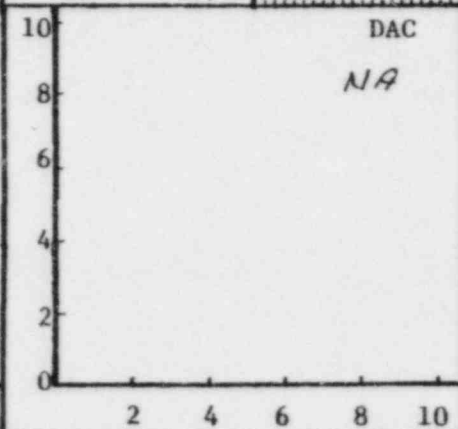
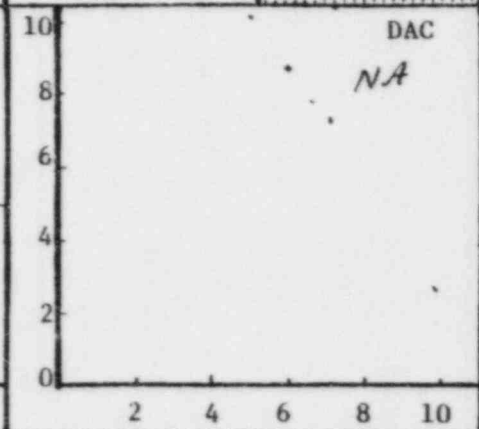
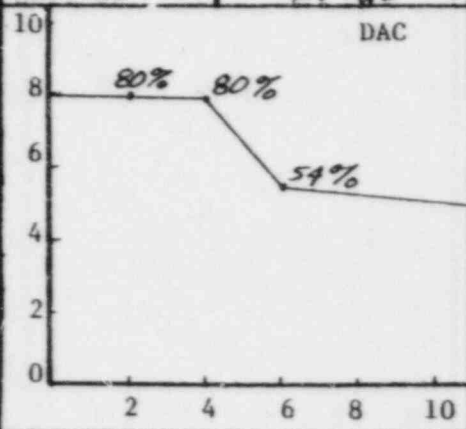
Customer LP & L	Plant WATERFORD	Unit 3	Loop/Zone B 46	Iso/Drawing No. ZONE 46 R-2, FC. 4
Procedure ISI. 22 RO, FCZ	Exam Surface O.D.	Exam In. r/Level Navy Longenecker II	VCR Supervisor Daniel Jensen	Date 9-28-82
Component/Piping System INSIDE MAIN FEED HEADER B- CONT.		Pipe Size NOZZLE	Weld Type BUTT	Cal. Block UT-37
			Couplant: SONOTRACE	Batch No. 829

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **2**

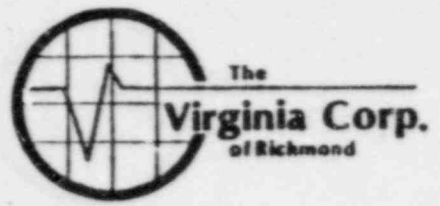
Transducer	0°	45°	60°	Instrument			
S/N	48807	NA	NA	Mfr.	SONIC	Model	MARK 1
Size	1. " DIA.			S/N	01058E	RepRate	3K
Frequency	2.25 MHz			Reject	OFF	Filter	H1
Beam Angle	0°			Damp	MIN.	Coax	12'
				Freq.	2. MHz.	Video	NORM

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1/4 T	80%	2.0	NA	NA	NA	NA	NA	NA	NA	NA	6:45	9:20	NA	NA	NA	NA
1/2 T	80%	4.0														
3/4 T	54%	6.0														
1 T	NA	8.2														
Ref. dB	27 dB 6L															



Additional Comments/Sketch

W.R. Martin, ANFI 1/5/82



Ultrasonic Examination Report PAGE 2 OF 6

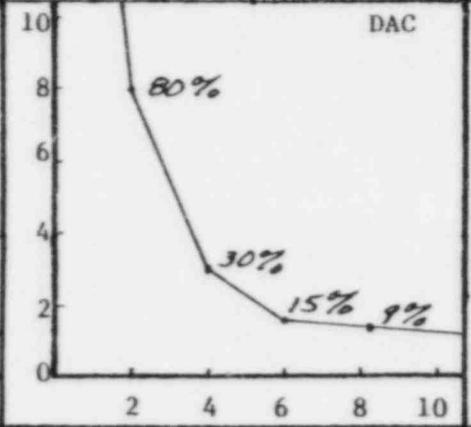
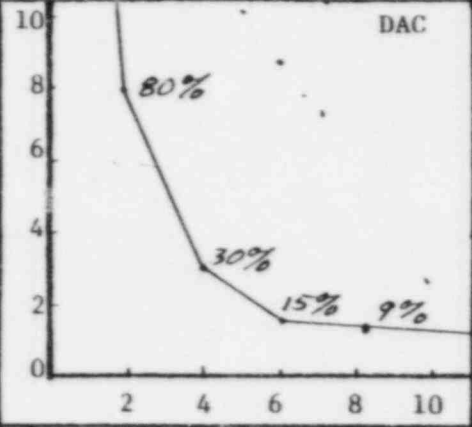
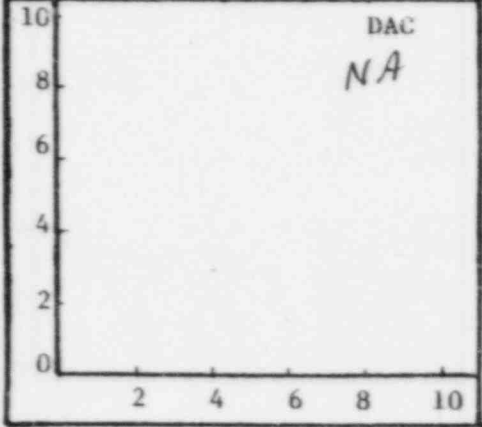
Customer LP&L		Plant WATERFORD		Unit 3	Loop/Zone B 46	Iso/Drawing No. ZONE 46 R-2, F.C. 4	
Procedure I.S.I. 22 RO.F.C.Z		Exam Surface O.D.	Examiner/Level Navy Longneck II		VCR Supervisor Daniel Dine		Date 9-28-82
Component/Piping System INSIDE MAIN FEED HEADER B- CONT.			Pipe Size NOZZLE	Weld Type BUTT	Cal. Block UT-37	Couplant: SONOTRACE Type 40 Batch No. 8124	

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **2**

	Transducer	30°	45°	60°	Instrument			
	S/N	M09140	NA	NA	Mfr.	SONIC	Model	MARK I
	Size	1/2" DIA.			S/N	02307E	RepRate	3K
	Frequency	2.25 MHz			Reject	OFF	Filter	H1
	Beam Angle	30°			Damp	MIX.	Coax	12'
				Freq.	2. MHz.	Video	NORM	

Calibration 0°			2 & 5 Scan						7 & 8 Scan						Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			30°		45°		60°			
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out		
1/4 T	NA	NA	80%	2.0	NA	NA	NA	80%	2.0	NA	NA	NA	6:47	9:23	NA	NA	NA	NA		
1/2 T			30%	4.0				30%	4.0											
3/4 T			15%	6.0				15%	6.0											
1 T			9%	8.2				9%	8.2											
Ref. dB																				



Additional Comments/Sketch
HALF NODE CALIBRATION

J.R. Martin, ANII 10-5-82



The
Virginia Corp.
of Richmond

Ultrasonic Examination Report - Continuation Sheet Page 3 of 6

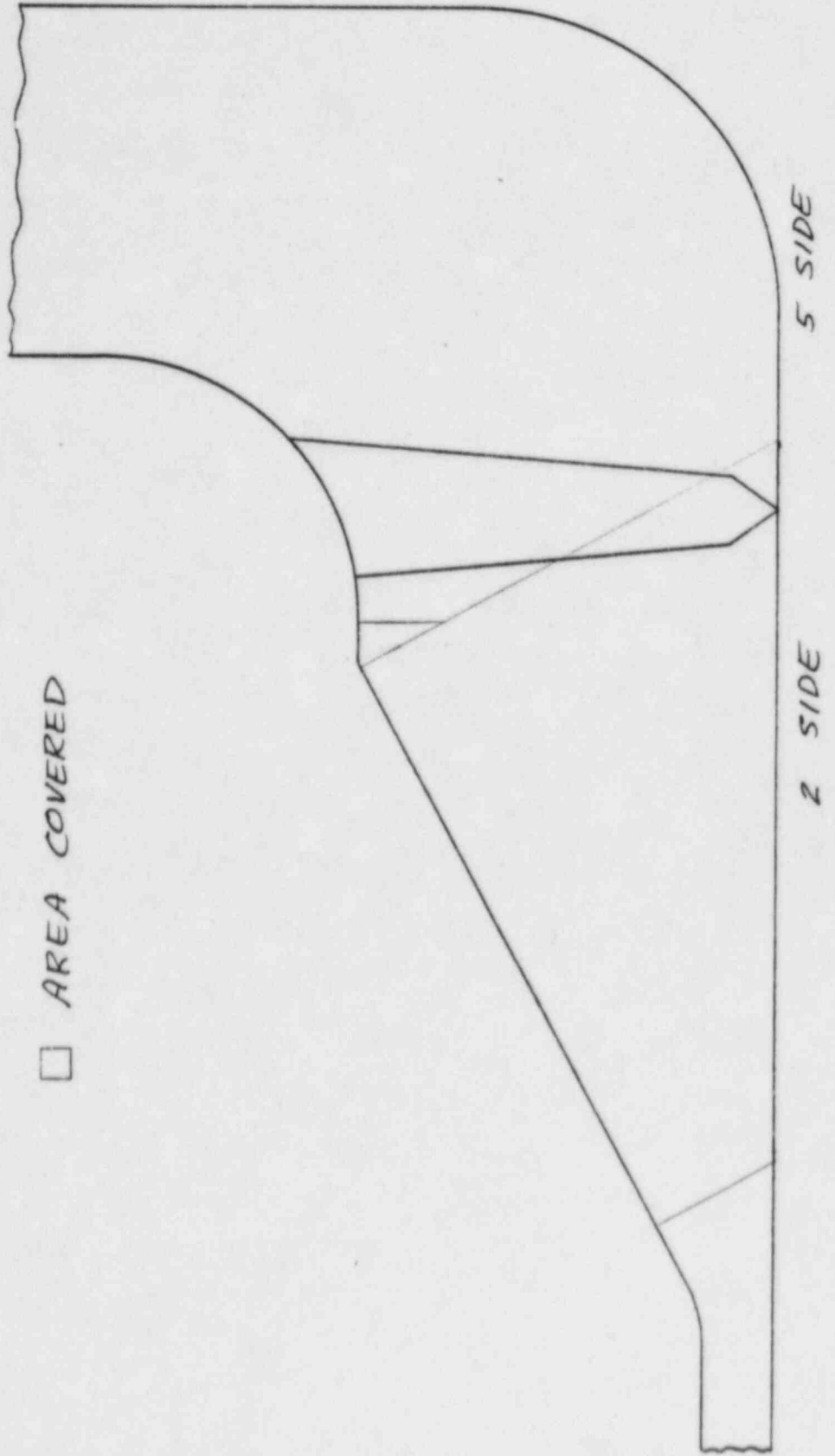
Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>B 46</i>	Iso/Drawing No. <i>ZONE 46 R-2, F.C.4</i>
Procedure <i>I.S.I. 2.2 R.O.F.C.2</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Harry Longenecker II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>9-28-82</i>
Component/Piping System <i>INSIDE MAIN FEED HEADER B - CONT.</i>	Pipe/Size <i>NOZZLE</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-37</i>	Couplant: Type & Batch # <i>SONOTRACE 90 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks	
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual		
46024	NA	PAR	PAR	NO	PAR	PAR	SEE ATTACHED SHEET	CLEAN	GROUND	N.I.	SAT.	SEE ATTACHED

WELD NO. 46-021

0°; 7 1/8 SCANS

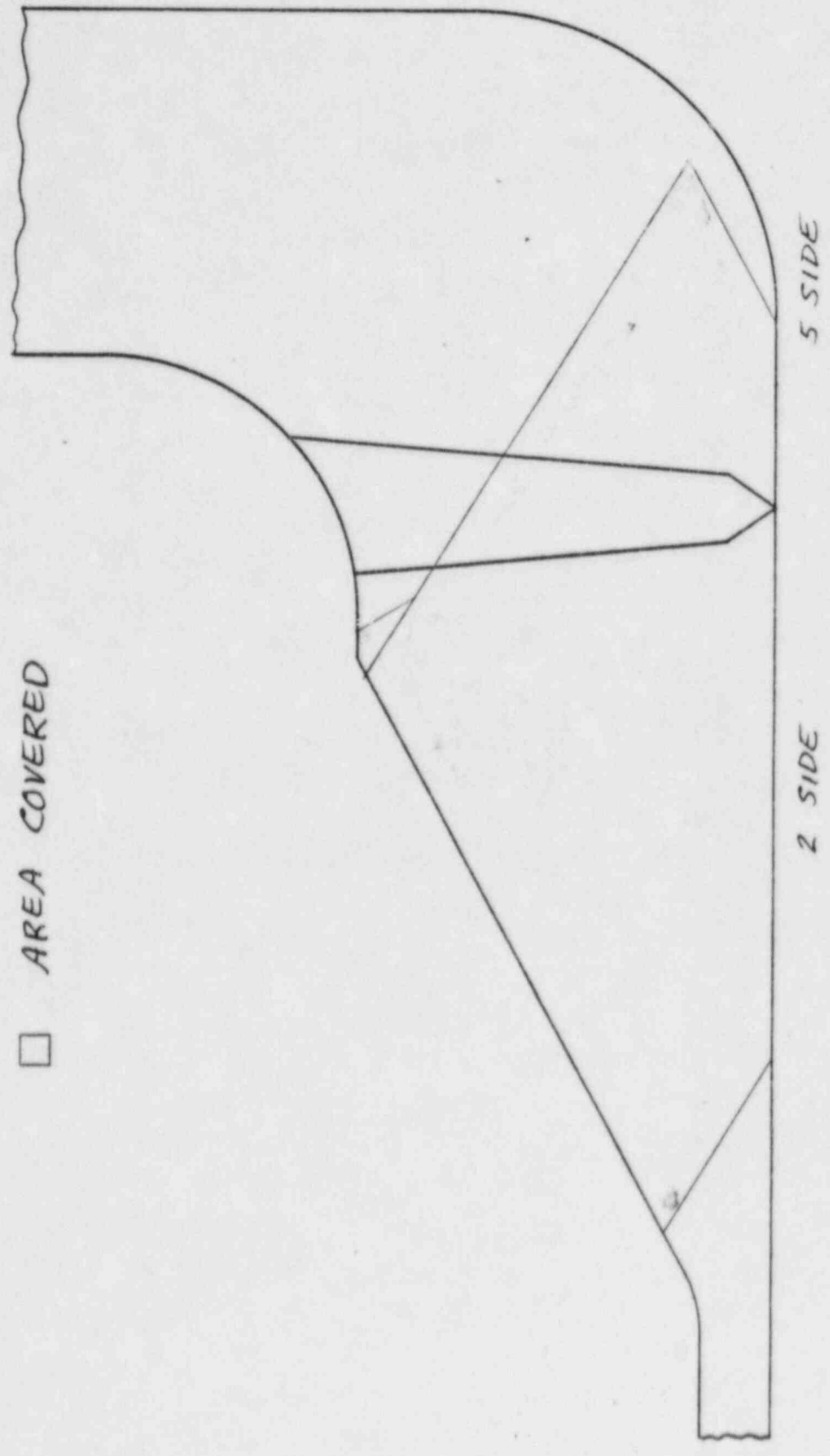
□ AREA COVERED

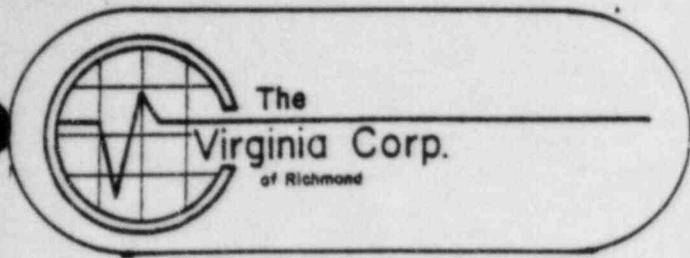


WELD NO. 46-021

Z SCAN R.L. 30°

□ AREA COVERED





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DATE 9-28-82

PAGE 6 OF 6

TO _____

SUBJECT REMARKS

WELD NO. 46-021 WELD WAS EXAMINED WITH
30° R.L. WAVE. WEDGE NOISE NOTICED
WHEN MAKING POOR CONTACT.

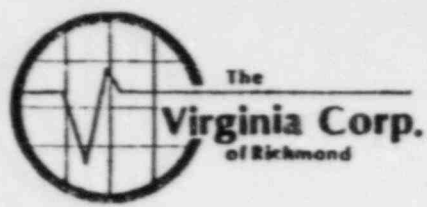
5 SIDE BASE METAL AND 5 SCAN
COULD NOT BE PERFORMED, AND ALL
OTHER SCANS WERE LIMITED BECAUSE
OF NOZZLE RADIUS.

I.D. GEOMETRY NOTICED IN 2 SCAN
2 5/8" (2 SIDE) WITH EXIT POINT OF
WEDGE DIRECTLY OVER CORNER OF
BEVEL. SIGNAL COMING UP AT 7.1 SW.
450% DAC, 360°. AT THIS POINT IT
SHOULD BE 8.1 SW. TO I.D. WITH 30°
ABLE TO REDUCE SIGNAL BY WIPING
COUPLANT FROM WEDGE ON BEVEL
SIDE OF EXIT POINT. THE COUPLANT
IS CAUSING SOUND TO GO CLOSE TO
NORMAL (0°) TO I.D. AT THIS ANGLE
SOUND PATH WOULD BE 7.1 ON SWEEP

SIGNED Gary Longenecker

M.R. Martin, ANEI 7-8-83

Ultrasonic Examination Report



Customer L.P.+L	Plant Waterford	Unit 3	Loop/Zone 2/46	Iso/Drawing No. Zone 46, P.5
Procedure ISI-2.2, R1	Exam Surface O.D.	Examiner/Level Kevin T. White AT	VCR Supervisor Daniel Jensen	Date 7-7-83
Component/Piping System Main Feedwater-Inside Cont.	Pipe Size 18"	Weld Type Butt	Cal. Block # UT-124	Couplant: Sonotrace Type 40 Batch No. 8225

Continuation Sheet Attached
 Yes No

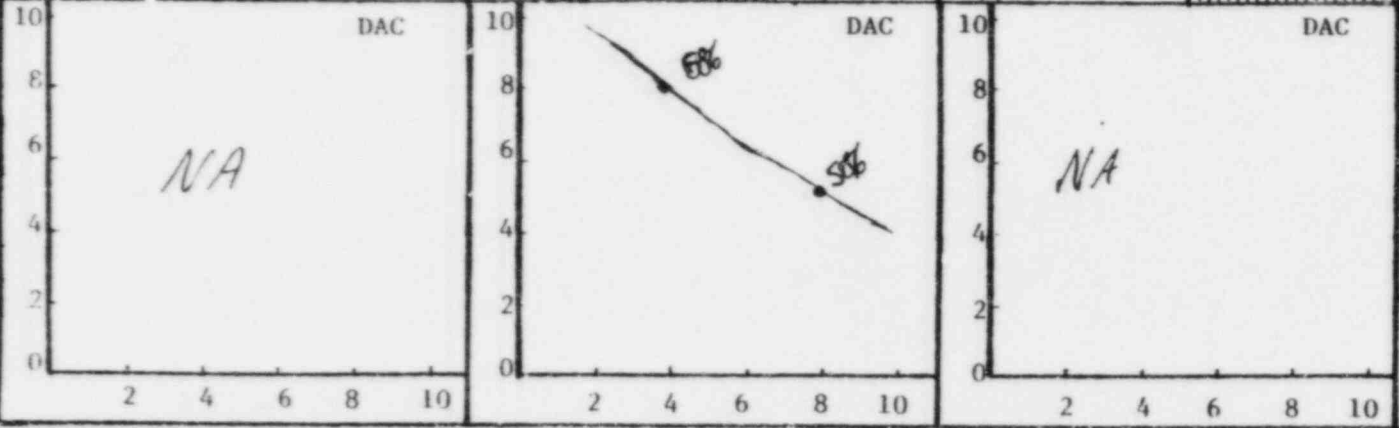
Field Changes:
 Yes No
 If Yes, Number _____

Transducer	0°	45°	60°	Instrument			
S/N	NA	G07150	NA	Mfer.	Sonic	Model	Mark 1
Size		1/2"		S/N	04405E	RepRate	3K
Frequency		2.25 MHz		Reject	Off	Filter	High
Beam Angle		44°		Damp	Min	Coax	BNC-Md
				Freq.	2	Video	Norm

Calibration 0° 2 & 5 Scan 7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks					
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°	
											In	Out	In	Out	In	Out
1T	NA	NA	80%	4.0	NA		NA	NA	NA		NA	NA	11:05	10:30	NA	NA
2T			50%	8.0												

Ref. dB NA 40db NA



Additional Comments/Sketch
 * See continuation sheet.

M.R. Martin, ANEI 7-8-83



The Virginia Corp. of Richmond

Ultrasonic Examination Report - Continuation Sheet

Page of

Customer L P+L	Plant Waterford	Unit 3	Loop/ Zone 2 / 46	Isd/Drawing No. Zone 46, R.5
Procedure IS1-2.2.R.1	Exam Surface O.D.	Examiner/Level Kevin White/II	VCR Supervisor Daniel Jensen	Date 7-7-83
Component/Piping System Main Feedwater - Inside Cont.	Pipe Size 18"	Weld Type Butt	Cal. Block UT-124	Couplant: Type & Batch # Sonotrace 40, B225

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
46002	NA	Par	Par	NA	NA	Partials - Reexamination of indication #1 done on 5-21-82 by Rick Burlingame.	Smooth	Ground	NI	Sat.	*
						*After reexamination it was determined that the indication was geometric on the I.D. The indication barely came up to 20% DAC.					

M.R. Martin, ANII 7-11-83

Ultrasonic Examination Report



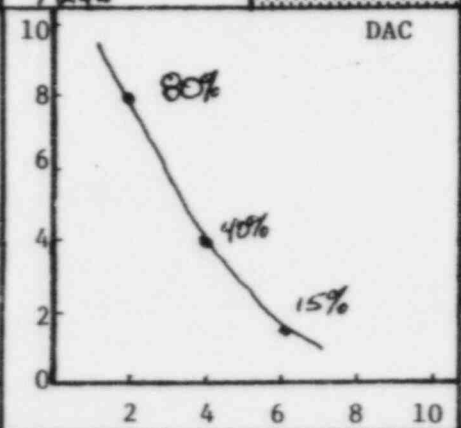
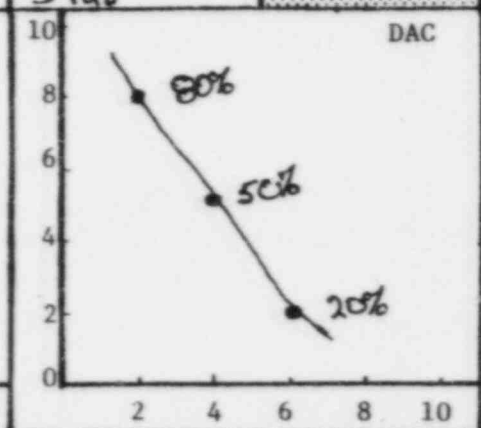
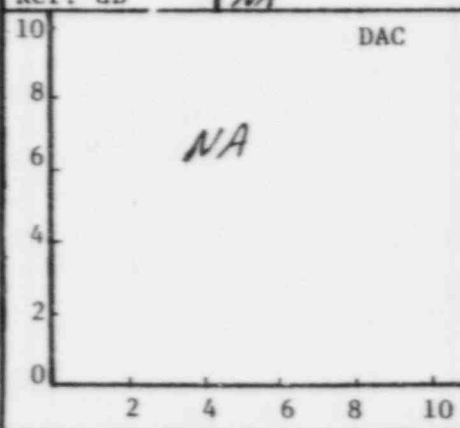
Customer LP+L	Plant Waterford	Unit 3	Loop/Zone NA/46	Iso/Drawing No. Zone 46, R.5
Procedure ISI-2.2, R1	Exam Surface O.D.	Examiner/Level Kevin White II	VCR Supervisor Daniel Jensen	Date 7-9-83
Component/Piping System Feedwater Header B-Inside Cont	Pipe Size 20"	Weld Type Butt	Cal. Block # UT-125	Couplant: Sonotrace Type 40 Batch No. 8225

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number

Transducer	0°	45°	60°	Instrument		
	S/N NA	K12915	NA	Mfr. SonicS	Model Mack 1	
	Size	1/2"		S/N 04405E	RepRate 3K	
	Frequency	2.25 MHz		Reject off	Filter High	
Beam Angle	45°		Damp Min	Coax 6' SWC-Md		
Freq.	2		Video Norm			

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	2.0	NA		80%	2.1	NA		NA	NA	8:35	10:10	NA	NA
2T			50%	4.0			40%	4.1								
3T			20%	6.0			15%	6.3								
Ref. dB	NA		39db				42db									



Additional Comments/Sketch
None

M.R. Martin, ANII 7-11-83



Ultrasonic Examination Report - Continuation Sheet

Page of

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/46</i>	Iso/Drawing No. <i>Zone 46, R.5</i>
Procedure <i>ISI-2.2 R.1</i>	Exam Surface <i>QD.</i>	Examiner/Level <i>Kevin White III</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>7-9-83</i>
Component/Piping System <i>Feedwater Header B-Inside Cont</i>	Size <i>40" 20"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-125</i>	Couplant: Type & Batch # <i>Sonotrace 40, 8235</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
46-011	NA	Yes	Yes	Yes	NA	None	Smooth	Ground	NI	Sat	None
46-014	NA	Yes	Yes	Yes	NA	None	Smooth	Ground	NI	Sat	None
46-015	NA	Yes	Yes	Yes	NA	None	Smooth	Ground	NI	Sat	None
46-016	NA	Yes	Yes	Yes	NA	None	Smooth	Ground	NI	Sat	None

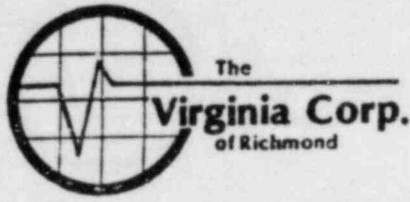


M.R. Martin, ANII 9-29-82
Magnetic Particle

Examination Report

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>NA 47</i>
Procedure <i>ISI 4.3 REV-0 FC-1</i>	Examiner/Level <i>Robert W Anderson II</i>	VGR Supervisor <i>Manuel Jensen</i>	Date <i>9-27-82</i>
Component/Piping System <i>MAIN & EMERGENCY FEED HEADER A - OUTSIDE CONT.</i>		ISO Drawing No. <i>ZONE 47 R-2 FC-2</i>	Surface Condition <i>GROUND</i>
Type of Particles Wet <input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input checked="" type="checkbox"/> Flourescent <input type="checkbox"/>	Manufacturer <i>MAGNAFLUX</i>	Type <i>8 RED</i>	Batch Number <i>81M110</i>
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC	Machine Mfr. <i>PARKER RESEARCH</i>	Type/Model <i>CONTOUR PROBE</i>	Serial No. <i>4604</i>
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil <i>NA</i> Amps. <i>NA</i> No. Turns	Prods <i>NA</i> Spacing <i>NA</i> Amps.	Yoke <i>5"</i> Spacing

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
<i>47-035</i>	<i>ADEQUATE FIELD WAS VERIFIED</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>47-036</i>	<i>USING MPFI #17</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

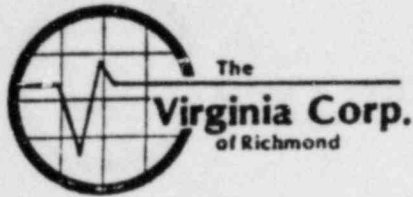


Magnetic Particle

M.R. Martin, ANET 10/1/82
Examination Report

Customer <u>L P+L</u>		Plant <u>Waterford</u>		Unit # <u>3</u>		Loop/Zone <u>N/A 147</u>	
Procedure <u>ISI-4.3 Rev. 0 FC. 1</u>		Examiner/Level <u>Michael E. Smith II</u>		VCR Supervisor <u>Daniel Lyons</u>		Date <u>9-29-82</u>	
Component/Piping System <u>Main + Emergency Feed Header A outside cont.</u>			ISO Drawing No. <u>Zone 47 Rev 2 H. 2</u>			Surface Condition <u>GROUND</u>	
Type of Particles Wet <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input type="checkbox"/> Fluorescent <input type="checkbox"/>		Manufacturer <u>MAGNAFLUX</u>		Type <u>8A Red</u>		Batch Number <u>81M110</u>	
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC		Machine Mfr. <u>Parker Research</u>		Type/Model <u>Contour Probe</u>		Serial No. <u>4604</u>	
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual		Coil <u>N/A</u> Amps. <u>N/A</u> No. Turns		Prods <u>N/A</u> Spacing <u>N/A</u> Ampe		Yoke <u>6"</u> Spacing	

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
<u>47-001</u>	<u>Adequate field was verified</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<u>47-002</u>	<u>Using M.P.F.I # 15</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<u>47-003</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



Magnetic Particle Examination Report
Mr. R. Martin, ANET 10/1/82

Customer LP&L		Plant WATERFORD		Unit 3		Loop/Zone NA 47	
Procedure ISI 4.3 REV-0 FC-1		Examiner/Level <i>Robert W Adman</i>		VGR Supervisor <i>Manil Jensen</i>		Date 9-29-82	
Component/Piping System MAIN + EMERGENCY FEED HEADER A - OUTSIDE CONT.				ISO Drawing No. ZONE 47 REV-2 FC-2		Surface Condition GROUND	
Type of Particles <u>Wet</u> <input checked="" type="checkbox"/> <u>Dry</u> <input checked="" type="checkbox"/> <u>Visible</u> <input type="checkbox"/> <u>Flourescent</u> <input type="checkbox"/>		Manufacturer MAGNAFLUX		Type 8A RED		Batch Number 81M110	
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC		Machine Mfr. DARKER RESEARCH		Type/Model CONTOUR PROBE		Serial No. 4604	
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual		Coil <u>NA</u> Amps. <u>NA</u> No. Turns		Prods <u>NA</u> Spacing <u>NA</u> Amps.		Yoke <u>4.5"</u> Spacing	

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
47-011		✓		✓	
47-012		✓		✓	
47-013		✓		✓	
47-014		✓		✓	
47-015		✓		✓	
47-016		✓		✓	
47-017		✓		✓	
47-025		✓		✓	
47-026		✓		✓	
47-027		✓		✓	



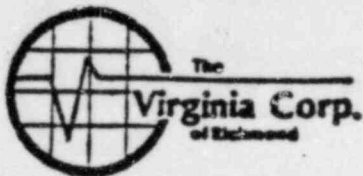
The
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M.R. Martin, ANIS 10-14-82
Magnetic Particle

Examination Report

Customer <i>LP+L</i>		Plant <i>Waterford</i>	Unit <i># 3</i>	Loop / Zone <i>NA / 47</i>
Procedure <i>ISI-4.3 Rev. 0 FL. 1</i>		Examiner/Level <i>Michael E. Smith II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-9-82</i>
Component/Piping System <i>Main Emergency feed Header A outside cont.</i>		ISO Drawing No. <i>20W 47 Rev. 2. FL. 5</i>		Surface Condition <i>G ROUNH</i>
Type of Particles Wet <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input checked="" type="checkbox"/> Fluorescent <input type="checkbox"/>		Manufacturer <i>MAGNAFLUX</i>	Type <i>8A Red</i>	Batch Number <i>810110</i>
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC	Machine Mfr. <i>Parker Research</i>	Type/Model <i>Contour Probe</i>	Serial No. <i>4604</i>	
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil <i>NA</i> Amps. <i>NA</i> No. Turns	Prods <i>NA</i> Spacing <i>NA</i> Amps.	Yoke <i>6"</i> Spacing	

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
<i>47-035-900</i>	<i>Adequate field was verified</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>47-036-900</i>	<i>Using MP EI # 15</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



M.R. Martin, ANIS 10-5-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>N/A 47</i>
Component/Piping System <i>Main and Emergency Feed Header A</i>	Examiner/Level <i>Mary A. Johnson #</i>	Date <i>9-27-82</i>	
Procedure <i>IST 2.5 Rev. 0 FC-0</i>	Iso/Drawing No. <i>Zone 47 Rev. 2 FC2</i>	VCR Supervisor <i>Daniel F. Jones</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

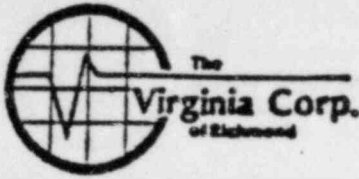
Equipment

Instrument	Transducer		Calibration
Mfgr. <i>Kraut Kramer</i>	Mfgr. <i>KB Aerotech</i>	Size <i>1/2"</i>	Cal. Block <i>UT-125</i>
Model <i>USL-37</i>			Cal. Block
S/N <i>210021</i>	Freq. <i>2.25 MHz</i>		Range Cal. <i>1.56"</i>
Reject <i>OFF</i>			Calibration Checks
Damp. <i>OFF</i>	Serial No. <i>J 02172</i>		
Freq. <i>5</i>	Coax. Cable <i>6'</i>		Cal <i>IN 8:15</i>
Rep. Rate <i>1k</i>			Cal <i>Out 10:45</i>
Filter <i>Low</i>			
Video <i>NA</i>	Gain <i>38 db</i>		
Couplant <i>Sonotrace 40 8124</i>			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>47-035</i>	<i>12</i>	<i>1.344"</i>	<i>1.250"</i>	<i>1.219"</i>					
<i>47-035</i>	<i>2</i>	<i>1.359"</i>	<i>1.234"</i>	<i>1.266"</i>					
<i>47-035</i>	<i>4</i>	<i>1.313"</i>	<i>1.219"</i>	<i>1.250"</i>					
<i>47-035</i>	<i>6</i>	<i>1.281"</i>	<i>1.219"</i>	<i>1.234"</i>					
<i>47-035</i>	<i>8</i>	<i>1.250"</i>	<i>1.203"</i>	<i>1.219"</i>					
<i>47-035</i>	<i>10</i>	<i>1.281"</i>	<i>1.219"</i>	<i>1.188"</i>					

Sketch/Identification



W.R. Martin, ANEI 10-5-P.L
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA 47</i>
Component/Piping System <i>Main and Emergency Feed Header</i>	Examiner/Level <i>Ray P. Lott II</i>	Date <i>9-27-82</i>	
Procedure <i>ISI 2.5 Rev 0 FC-0</i>	Iso/Drawing No. <i>Zone 47 Rev 2 FC-2</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>Sonic</i>	Mfgr. <i>Gamma Dufp</i>	Size <i>1/2"</i>	Cal. Block <i>UT-125</i>	
Model <i>Mark I</i>			Cal. Block	
S/N <i>01058 E</i>	Freq. <i>2.25 MHz</i>		Range Cal. <i>1.56"</i>	
Reject <i>OFF</i>			Calibration Checks	
Damp. <i>Min</i>	Serial No. <i>KB 2728</i>			
Freq. <i>2</i>	Coax. Cable <i>6'</i>		<i>Cal. In 12:00</i>	
Rep. Rate <i>3K</i>			<i>Cal Out 3:35</i>	
Filter <i>OFF</i>				
Video <i>Norm</i>	Gain <i>70 db</i>			
Couplant <i>Sonotrace 40 8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>47-036</i>	<i>12</i>	<i>1.250"</i>	<i>1.188"</i>	<i>1.219"</i>					
<i>47-036</i>	<i>2</i>	<i>1.250"</i>	<i>1.250"</i>	<i>1.219"</i>					
<i>47-036</i>	<i>4</i>	<i>1.234"</i>	<i>1.250"</i>	<i>1.234"</i>					
<i>47-036</i>	<i>6</i>	<i>1.328"</i>	<i>1.234"</i>	<i>1.203"</i>					
<i>47-036</i>	<i>8</i>	<i>1.281"</i>	<i>1.156"</i>	<i>1.219"</i>					
<i>47-036</i>	<i>10</i>	<i>1.219"</i>	<i>1.188"</i>	<i>1.234"</i>					

Sketch/Identification



The Virginia Corp. of Richmond

Ultrasonic Examination Report

Customer <i>LP-1</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/47</i>	Iso/Drawing No. <i>Zone 47 Rev 2 FC-2</i>
Procedure <i>ISI-2.2 Rev DEC 2</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Daniel Jensen</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>9-27-82</i>
Component/Piping System <i>Main and Emergency Feed Header A</i>	Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-125</i>	Couplant: <i>Type Sana 40 Batch No. 8134</i>

Continuation Sheet Attached

Yes No

Field Changes:

Yes No

If Yes, Number *FC-2*

	Transducer	<i>0°</i>	<i>45°</i>	<i>60°</i>	Instrument			
	S/N	<i>T02172</i>	<i>NA</i>	<i>NA</i>	Mfr.	<i>Krant Kramer</i>	Model	<i>USL-37</i>
	Size	<i>1/2"</i>			S/N	<i>210021</i>	RepRate	<i>1K</i>
	Frequency	<i>2.25 MHz</i>			Reject	<i>OFF</i>	Filter	<i>Low</i>
	Beam Angle	<i>0°</i>			Damp	<i>OFF</i>	Coax	<i>6' BNC-BNC</i>
					Freq.	<i>5.0 MHz</i>	Video	<i>NA</i>

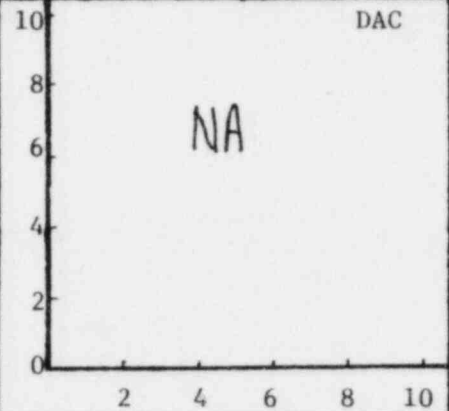
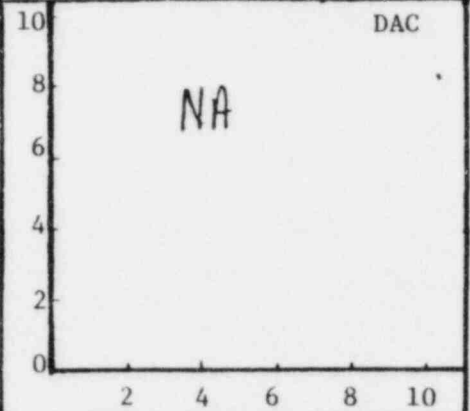
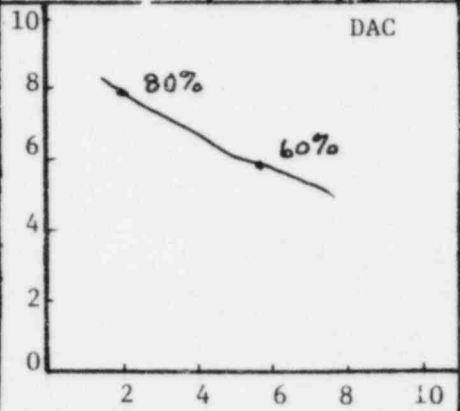
Calibration *0°*

2 & 5 Scan

7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks							
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°			
											In	Out	In	Out	In	Out		
<i>1/4 T</i>	<i>80%</i>	<i>2.0</i>	<i>NA</i>	<i>NA</i>			<i>NA</i>	<i>NA</i>			<i>8:15</i>	<i>10:45</i>						
<i>3/4 T</i>	<i>60%</i>	<i>5.8</i>																

Ref. dB *38 DB*



Additional Comments/Sketch

W.R. Martin, ANFI 10-5-82



The

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Ultrasonic Examination Report - Continuation Sheet

Page of

Customer LPK	Plant Waterford	Unit 3	Loop/ Zone NA/47	Iso/Drawing No. Zone 47 Rev. 2 EC-2
Procedure IST-2.2 Rev. 0 EC-2	Exam Surface O.D.	Examiner/Level Dany A. Sapienza II		VCR Supervisor Daniel Jensen
Component/Piping System Main and Emergency Feed Header A		Pipe Size 20"	Weld Type Butt	Cal. Block UT-125
				Couplant: Type & Batch # Sonotruie 40 S/N: 8124
			Date 9-27-82	

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
47-035	Yes	NA	NA	NA	Par	Par due to Weld Crown Approximately 10% not covered	Ground	Ground	NI	Sat	

W.R. Martin, ANIF 10-5-82



The Virginia Corp.
of Richmond

Ultrasonic Examination Report

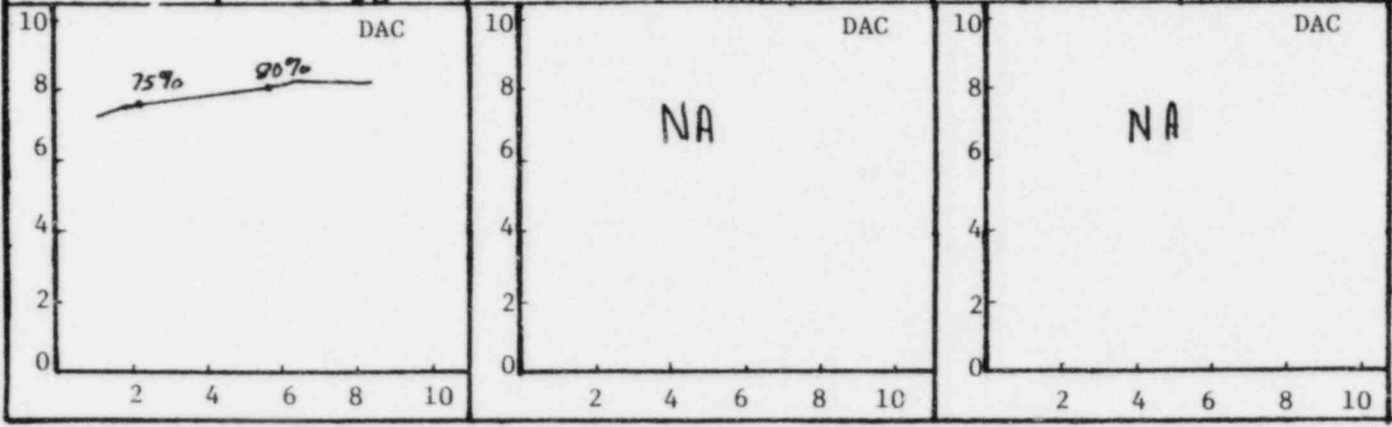
Customer LP4L	Plant Waterford	Unit 3	Loop/Zone NA/47	Iso/Drawing No. Zone 47 Rev.2 FC-2
Procedure ISI-2.2 Rev.0 FC-2	Exam Surface O.D.	Examiner/Level Greg M. Saphiro II	VCR Supervisor Daniel Dena	Date 9-27-82
Component/Piping System Main and Emergency Feed Header A	Pipe/Size 20"	Weld Type Butt	Cal. Block # UT-125	Couplant: Type Sono 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **FC-2**

Transducer	0°	45°	60°	Instrument			
S/N	KB3728	NA	NA	Mfr.	Sonic	Model	Mark I
Size	1/2"			S/N	0155BE	RepRate	1K
Frequency	2.25 MHz			Reject	OFF	Filter	OFF
Beam Angle	0°			Damp	Min.	Coax	6'BNC-BNC
				Freq.	2.25 MHz	Video	Norm

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1/4T	75%	2.0	NA	NA			NA	NA			12:00	3:35	NA	NA	NA	NA
3/4T	80%	5.8														



Additional Comments/Sketch

W.R. Martin, ANII 10-5-82



The Virginia Corp.
of Richmond

Ultrasonic Examination Report - Continuation Sheet

Page **of**

Customer <i>LP-2</i>	Plant <i>Water Feed</i>	Unit <i>3</i>	Loop/ Zone <i>NA/ 47</i>	Iso/Drawing No. <i>Zone 47 Rev 2 FC-3</i>
Procedure <i>ISX-2.2 Rev 0 FC-3</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>May A. [Signature] II</i>	VCR Supervisor <i>Daniel [Signature]</i>	Date <i>9-27-82</i>
Component/Piping System <i>Main and Emergency Feed Header A</i>	Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-125</i>	Couplant: Type & Batch # <i>Sonotrace 40 s/n: 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
47-036	Yes	NA	NA	NA	Par	Par due to Weld Crown Approximately 10% not covered	Ground	Ground	NI	Sat	

W.R. Martin, ANEF 10-5-82



Ultrasonic Examination Report

Customer <i>2 P+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/47</i>	Iso/Drawing No. <i>Zone 47 Rev. 2 FC-2</i>
Procedure <i>ISI-2.2 Rev. FC-2</i>	Exam Surface <i>0.D</i>	Examiner/Level <i>Thomas A. Lofthouse II</i>		VCR Supervisor <i>Daniel Jensen</i>
Component/Piping System <i>Main and Emergency Feed Header A</i>		Pipe Size <i>3.0"</i>	Weld Type <i>Butt</i>	Date <i>9-27-82</i>
			Cal. Block <i>UT-125</i>	Couplant: Type <i>Sonac 40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	NA	M04140	NA	Mfr.	Sonic	Model	Mark I
		1/2"		S/N	01930E	RepRate	3k
		2.25 MHz		Reject	OFF	Filter	OFF
		45°		Damp	Min.	Coax	12' BNC-BNC
			Freq.	2.25 MHz	Video	Norm.	

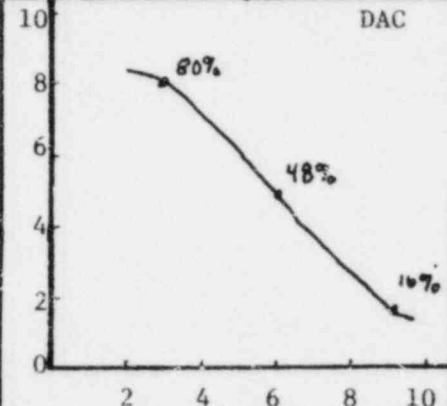
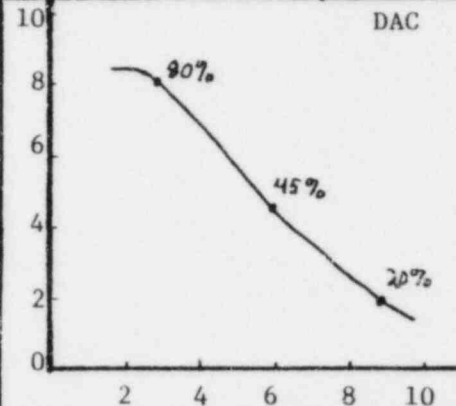
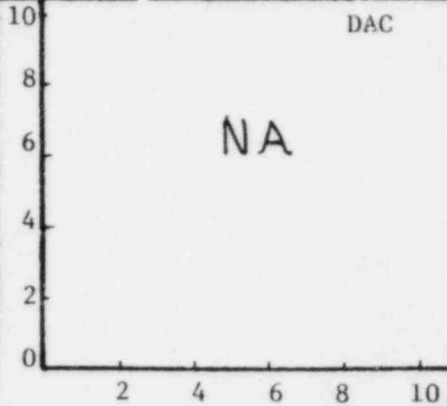
Field Changes:
 Yes No
 If Yes, Number *FC-2*

Calibration 0°

2 & 5 Scan

7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks					
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°	
											In	Out	In	Out	In	Out
<i>1T</i>	NA	NA	80%	3.0			80%	3.1			NA	NA	8:30	12:10	NA	NA
<i>2T</i>			45%	6.1			48%	6.0								
<i>3T</i>			20%	9.0			16%	9.3								
Ref. dB			46 DB				51 DB									



Additional Comments/Sketch

W. R. Martin, ANII 10-5-82

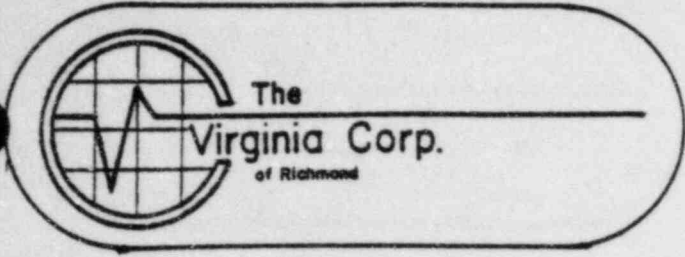


Ultrasonic Examination Report - Continuation Sheet

Page of

Customer LP+L		Plant Waterford		Unit 3	Loop/ Zone NA / 47	Iso/Drawing No. Zone 47 Rev 2 FC-7	
Procedure ISI-2.2 Rev 0 FC-2		Exam Surface O.D.	Examiner/Level Marilyn Lafolse II		VCR Supervisor Daniel Jones		Date 4-27-82
Component/Piping System Main and Emergency Feed Header A			Pipe Size 20"	Weld Type Butt	Cal. Block UT-125	Couplant: Type & Batch # Sontocore 40 ^{SAN} : 8124	

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
47-035	NA	Yes	Yes	Par	NA	Par due to Weld Crown	Ground	Ground	NI	Sat	See
47-036	NA	Yes	Yes	Par	NA	Par due to Weld Crown	Ground	Ground	NI	Sat	Attached Sheet



DATE 9-27-82

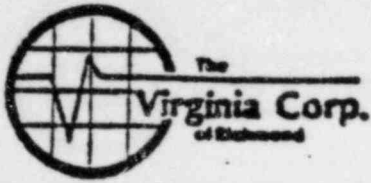
PAGE OF

TO _____

SUBJECT Partial on Weld #
47-035 , 47-036

47-035 - Partial due to weld Crown Approximately 10% not covered
47-036 - Partial due to weld Crown Approximately 10% not covered

SIGNED Mary A. Loftus II



W.R. Martin, ANES 10/5/82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>L P+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>N/A/47</i>
Component/Piping System <i>Main feed header A - outside</i>	Examiner/Level <i>Michael W. Blaw II</i>	Date <i>9-30-82</i>	
Procedure <i>ISI-2.5 R.O</i>	Iso/Drawing No. <i>Zone 47 R2 F.C.3</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Equipment

Instrument	Transducer		Calibration
Mfgr. <i>Krautkramer</i>	Mfgr. <i>KB-Aerotech</i>	Size <i>.5"</i>	Cal. Block <i>UT-125</i>
Model <i>USL-37</i>			Cal. Block <i>N/A</i>
S/N <i>210021</i>	Freq. <i>2.25 MHz</i>		Range Cal. <i>1.031 @ 80 div</i>
Reject <i>MIN.</i>	Serial No. <i>J02173</i>		Calibration Checks
Damp. <i>MIN.</i>			<i>IN-0500</i>
Freq. <i>2.5</i>	Coax. Cable <i>12' BNC to BNC</i>		<i>OUT-11:30</i>
Rep. Rate <i>1K</i>			<i>IN-1:00</i>
Filter <i>LOW</i>	Gain <i>40db</i>		<i>OUT-4:30</i>
Video <i>N/A</i>			
Couplant <i>Sonotrace 40 8124</i>			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
47-005	12	1.262	Valve	1.005	47-009	12	.979	Valve	.992
47-005	2	1.185		1.031	47-009	2	1.005		1.031
47-005	4	1.185		1.031	47-009	4	1.211		1.031
47-005	6	1.134		.992	47-009	6	1.159		1.031
47-005	8	1.211		.979	47-009	8	1.211		1.081
47-005	10	1.134	✓	.979	47-009	10	1.185	✓	1.005
47-007	12	1.082	1.018	Valve	47-034	12	1.121	.992	Valve
47-007	2	1.108	.992		47-034	2	1.185	.992	
47-007	4	1.082	1.018		47-034	4	1.237	1.031	
47-007	6	1.018	1.018		47-034	6	1.121	1.031	
47-007	8	1.043	.992		47-034	8	1.185	1.031	
47-007	10	1.031	.992	✓	47-034	10	1.185	1.005	✓

Sketch/Identification



Ultrasonic Data Sheet
W.R. Martin, for ANSI
10-5-82
 Thickness Measurement
 Continuation Page 2 of 2

Customer LP&L	Plant Waterford	Unit 3	Loop/Zone N/A/47
Component/Piping System Main feed header A-outside	Examiner/Level <i>Michael W. Blue II</i>	Date 9-30-82	
Procedure 151-2.5 R.O	Iso/Drawing No. Zone 47 R.2 F.C.3	VCR Supervisor <i>Daniel Jensen</i>	

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
47-037	12	1.031	1.005	1.005					
47-037	8	1.031	1.031	.979					
47-037	4	1.069	1.031	1.005					
47-037	6	1.005	1.031	.979					
47-037	8	1.043	1.031	.966					
47-037	10	1.056	.979	.979					

Sketch/Identification

M.R. Martin, ANIT 10/5/82



Ultrasonic Examination Report

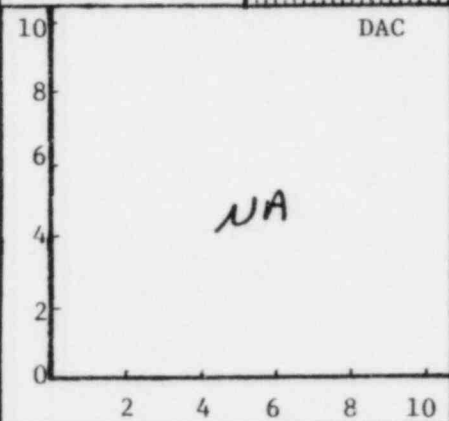
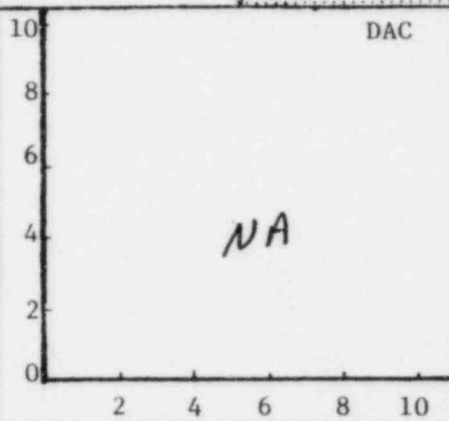
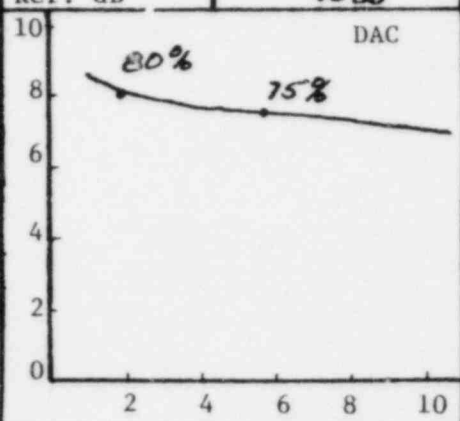
Customer L P & L	Plant WATERFORD	Unit 3	Loop/Zone NA/47	Iso/Drawing No. ZONE 47 REV 2 FC 2 ^{sub 3}
Procedure ISI-2.2 REV 0 FC 2	Exam Surface O. D.	Examiner/Level Michael W. Blum	VCR Supervisor Daniel Jensen	Date 9-30-82
Component/Piping System MAIN + EMERGENCY FEED HEADS "A"	Pipe Size 20"	Weld Type BUTT	Cal. Block UT-125	Couplant: SOUNDTRACE Type ND Batch No. B124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **2**

Transducer	0°	45°	60°	Instrument			
S/N	J02172	NA	NA	Mfgr.	KRANTZBERGER	Model	USL-37
Size	.50" DIA	↓	↓	S/N	210021	RepRate	1K
Frequency	2.25MHz	↓	↓	Reject	MIN	Filter	LOW
Beam Angle	0°	↓	↓	Damp	MIN	Coax	12" BNC-BNC
				Freq.	2.5	Video	NA

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
			NA	NA	NA	NA	NA	NA	NA	NA	NA	0900	1130	NA	NA	NA	NA
1/4 T	80%	1.8										100	4:30				
3/4 T	75%	5.6															
1 T		8.0															
Ref. dB	40db																



Additional Comments/Sketch

W.R. Martin, ANEI 10-5-82

Ultrasonic Examination Report - Continuation Sheet

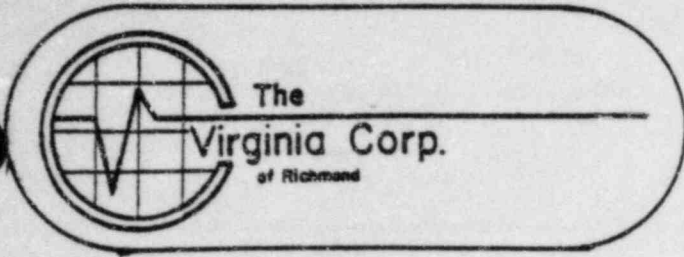


The Virginia Corp. of Richmond

Customer L P & L	Plant WATERFORD	Unit 3	Loop/ Zone NA/ 47	Iso/Drawing No. ZONE 47 R2 FC. 2
Procedure ISI 2.2 R.O.F.C.2	Exam Surface O. D.	Examiner/Level Michael W Blum II	VCR Supervisor Daniel J Jensen	Date 9-30-82
Component/Piping System MAIN + EMERGENCY FEED HEADER "A"	Pipe Size 20"	Weld Type BUTT	Cal. Block UT-125	Couplant: Type & Batch # SQUATRACE 40% B124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
47-005	PAR	NA	NA	NA	PAR	VALVE, SWEEPNET, WELD CROWN	Smooth	Ground	NI	SAT	*
47-007	PAR				PAR	VALVE, WELD CROWN	Smooth	Ground	NI	SAT	*
47-009	PAR				PAR	VALVE, WELD CROWN	Smooth	Ground	NI	SAT	*
47-034	PAR				PAR	VALVE, WELD CROWN	Smooth	Ground	NI	SAT	*
47-037	YES				PAR	WELD CROWN	Smooth	Ground	NI	SAT	*

* SEE ATTACHED SHEET



The
Virginia Corp.
of Richmond

DATE 9-30-82

PAGE 3 OF 3

TO NA

SUBJECT EXPLANATION OF
PARTIALS ON ZONE 47

47-005 PARTIAL BASE METAL SCAN DUE TO VALVE,
SWEEPPOST.
PARTIAL 0° SCAN DUE TO WELD CROWN.

47-007 PARTIAL BASE METAL SCAN DUE TO VALVE.
PARTIAL 0° SCAN DUE TO WELD CROWN.

47-009 PARTIAL BASE METAL SCAN DUE TO VALVE.
PARTIAL 0° SCAN DUE TO WELD CROWN.

47-034 PARTIAL BASE METAL SCAN DUE TO VALVE.
PARTIAL 0° SCAN DUE TO WELD CROWN.

47-037 PARTIAL 0° SCAN DUE TO WELD CROWN.

SIGNED Michael W. Blair

W.R. Martin, ANSF 10-5-82

Ultrasonic Examination Report



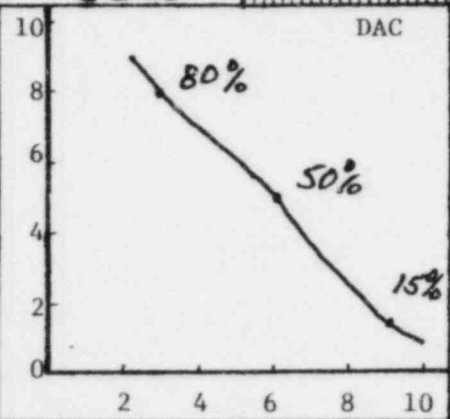
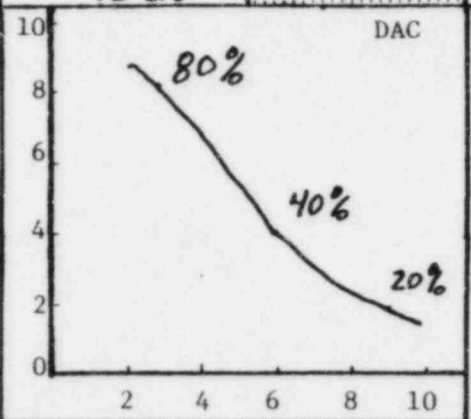
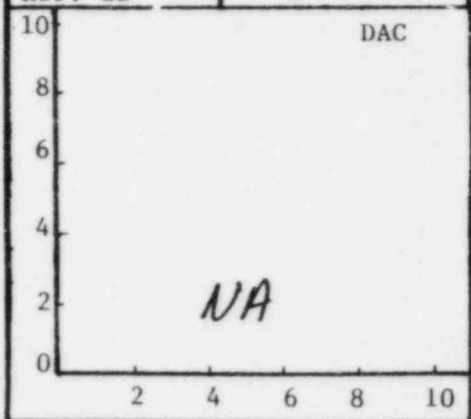
Customer L P I L	Plant WATERFORD	Unit 3	Loop/Zone NA/47	Iso/Drawing No. ZONE 47 REV 2 FC 2 ^{NO 3}
Procedure ISI-2.2 R.O FC.2	Exam Surface O. D.	Examiner/Level Michael W Blum II	VCR Supervisor David J. Jones	Date 9-30-82
Component/Piping System MAIN + EMERGENCY FEED HEADER A	Pipe Size 20"	Weld Type BUTT	Cal. Block UT-125	Couplant: SONOTRANCE Type 40 Batch No 8124

Continuation Sheet Attached
 Yes No

Field Changes:
Yes No
If Yes, Number **2**

	Transducer	0°	45°	60°	Instrument			
	S/N	NA	J22935	NA	Mfr.	SONIC	Model	MARK I
	Size	↓	.50" NA	↓	S/N	03704E	RepRate	1K
	Frequency	↓	2.25MHZ	↓	Reject	OFF	Filter	OFF
	Beam Angle	↓	45°	↓	Damp	11IN	Coax	12' BNC-BNC
Calibration 0°	2 & 5 Scan		7 & 8 Scan		Freq.	2.0	Video	NORM

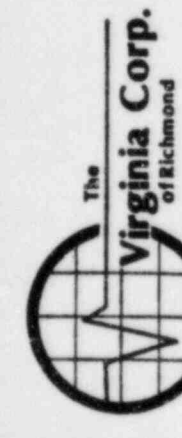
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			Calibration Checks					
					Scribe Line	50% DAC				Scribe Line	50% DAC		0°		45°		60°	
						In	Out				In	Out	In	Out				
	NA	NA			NA	NA	NA			NA	NA	NA	NA	9:30	11:35	NA	NA	
1T			80%	3.0	↓	↓	↓	80%	3.1	↓	↓	↓		1:05	4:35			
2T			40%	6.0	↓	↓	↓	50%	6.0	↓	↓	↓						
3T			20%	9.0	↓	↓	↓	15%	9.2	↓	↓	↓						
Ref. dB	↓	↓	48 db					52 db		↓	↓	↓	↓	↓	↓	↓	↓	



Additional Comments/Sketch

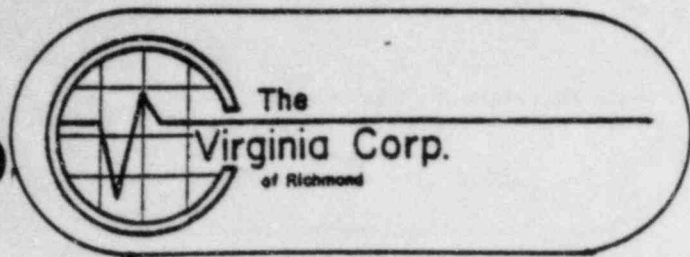
W.R. Martin, ANII 10-5-82

Ultrasonic Examination Report - Continuation Sheet



Weld No.	Base Metal Scan	Scan Direction			Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8		Base Metal	Weld	UT	Visual	
47-005	NA	NO	PAR	PAR	VALVE SURVEILLET	SMOOTH	GROUND	NI	SAT	*
47-007		YES	NO	PAR	VALVE	SMOOTH	GROUND	NI	SAT	*
47-009		NO	YES	PAR	VALVE	SMOOTH	GROUND	NI	SAT	*
47-034		YES	NO	PAR	VALVE	SMOOTH	GROUND	NI	SAT	*
47-037		YES	YES	YES	-	SMOOTH	GROUND	NI	SAT	* MWB

* SEE ATTACHED SHEET



The
Virginia Corp.
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DATE 9-30-82

PAGE 3 OF 3

TO NA

SUBJECT EXPLANATION OF
PARTIALS ON ZONE 47

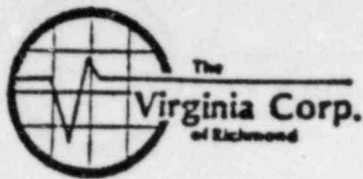
47-005 PARTIAL ON S SCAN DUE TO SWEEPPOINT.
PARTIAL 7+B SCAN DUE TO VALVE.

47-007 PARTIAL 7+B SCAN DUE TO VALVE.

47-009 PARTIAL 7+B SCAN DUE TO VALVE

47-034 PARTIAL 7+B SCAN DUE TO VALVE

SIGNED Michael W Blue



W.R. Martin, ANES 10-5-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LP+L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>N/A 47</i>
Component/Piping System <i>MAIN + EMERGENCY FEED HEADER 'A'</i>		Examiner/Level <i>Michael W Blw II</i>	Date <i>10-1-82</i>
Procedure <i>ISI 2.5 Rev. 0</i>	Iso/Drawing No. <i>ZONE 47 R.2 FC. 23</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached [] Yes [x] No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>Krautkramer</i>	Mfgr. <i>Aerotech</i>	Size <i>.50" Dia.</i>	Cal. Block <i>UT-125</i>	
Model <i>USL-37</i>	Freq. <i>2.25 MHz</i>	Serial No. <i>J02172</i>	Cal. Block -	
S/N <i>210021</i>	Coax. Cable <i>12' BNC-BNC</i>	Gain <i>40 db</i>	Range Cal. <i>1.031 = 80 DIV</i>	
Reject <i>Fixed</i>			Calibration Checks	
Damp. <i>Min.</i>			<i>CAL IN - 1:45</i>	
Freq. <i>2.5</i>			<i>CAL OUT - 3:15</i>	
Rep. Rate <i>1K</i>				
Filter <i>Low</i>				
Video <i>NA</i>				
Couplant <i>Sonotrace 40 3/4 8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>47-001</i>	<i>12</i>	<i>.979"</i>	<i>1.031"</i>	<i>1.159"</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>47-001</i>	<i>2</i>	<i>1.108"</i>	<i>1.031"</i>	<i>1.146"</i>					
<i>47-001</i>	<i>4</i>	<i>1.056"</i>	<i>1.031"</i>	<i>1.159"</i>					
<i>47-001</i>	<i>6</i>	<i>1.031"</i>	<i>1.031"</i>	<i>1.159"</i>					
<i>47-001</i>	<i>8</i>	<i>1.031"</i>	<i>1.031"</i>	<i>1.159"</i>					
<i>47-001</i>	<i>10</i>	<i>.953"</i>	<i>.979"</i>	<i>1.159"</i>					

Sketch/Identification

W.R. Martin, ANFS 10-5-82



Ultrasonic Examination Report

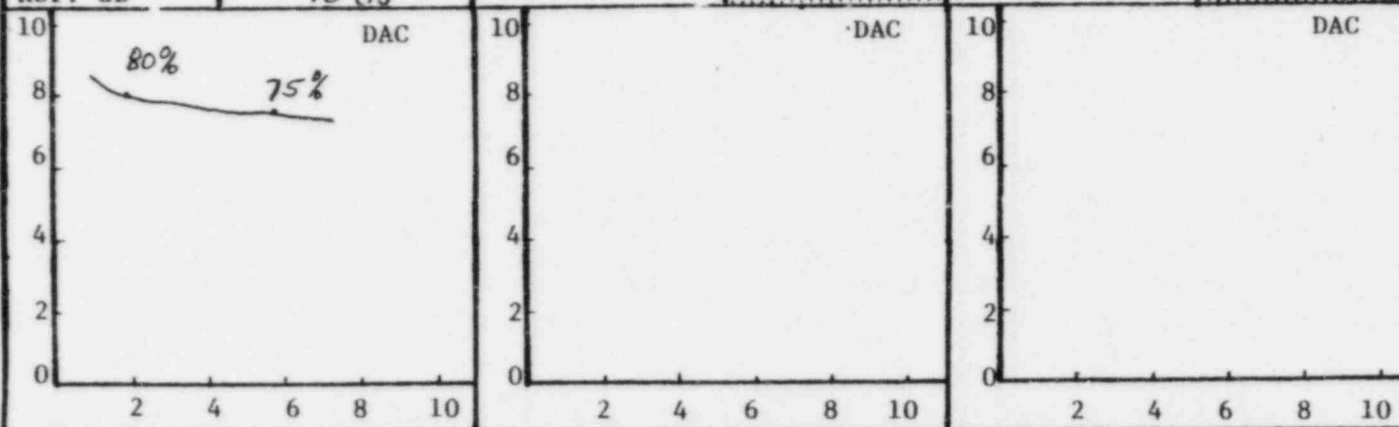
Customer LP & L	Plant WATERFORD	Unit 3	Loop/zone NA/47	Iso/Drawing No. ZONE 47 REV D EC 83	2 MWB MWB
Procedure ISI ZZ R.D. EC 2	Exam Surface O.D.	Examiner/Level Michael W. Blw II	VCR Supervisor Daniel Jones	Date 10-1-82	
Component/Piping System MAIN + EMERGENCY FEED HEADER "A"		Pipe Size 20"	Weld Type BUTT	Cal. Block # UT-125	Couplant: SOLVENT TYPE JP8 Batch No 0124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **2**

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	JOZ172	NA	NA	Mfg.	KRANTZMEIER	Model	USL-37
	.50" DIA	↓	↓	S/N	210021	RepRate	1K
	2.25MHz	↓	↓	Reject	Fixed	Filter	Low
	0°	↓	↓	Damp	MIN	Coax	12' BNC-BNC
				Freq.	2.5	Videa	NA

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks								
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°		
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out	
			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1:45	3:15	NA	NA	NA	NA
1/4 T	80%	1.8																	
3/4 T	75%	5.6																	
Ref. dB	40 db																		



Additional Comments/Sketch

M.R. Martin, ANEI 10-5-P2



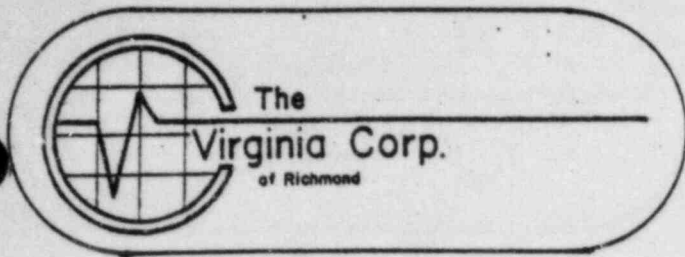
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Ultrasonic Examination Report - Continuation Sheet Page of

Customer LP&L	Plant WATERFORD	Unit 3	Loop/ Zone NA/ 47	Iso/Drawing No. REV 2 FC 2
Procedure ISI 2.2 R.O. FC. 2	Exam Surface O. D.	Examiner/Level Michael W. Blaw II	VCR Supervisor Daniel Jones	Date 10-1-82
Component/Piping System MAIN & EMERGENCY FEED NUMBER "A"	Pipe Size 20"	Weld Type BUTT	Cal. Block UT-125	Couplant: Type & Batch # SONOTRACC 40 #8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
47001	YES	NA	NA	NA	PAR	WELD CROWN	Smooth	Ground	NI	SAT	*

* SEE ATTACHED SHEET



DATE 10-1-82

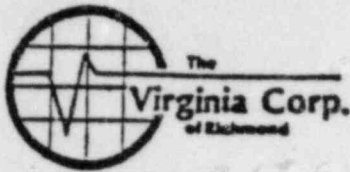
PAGE 3 OF 3

TO NA

SUBJECT EXPLANATION OF
PARTIALS ON ZONE 47

47-001 - PARTIAL ON 0° SCAN DUE TO WELD CROWN

SIGNED Michael W Blew



W.R. Martin, ANIF 10-14-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LPAL	Plant WATERFORD	Unit 3	Loop/Zone NA 47
Component/Piping System MAIN AND EMERGENCY FEED HEADER A - OUTSIDE CONTAINMENT	Examiner/Level <i>James W. Smith LVII</i>	Date 10-9-82	
Procedure ISI 2.5 REV-0 FC-0	Iso/Drawing No. 5 ZONE 47 REV-2 FC-4	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. SONIC	Mfgr. PANAMETRIC	Size .5"	Cal. Block UT-125	
Model MARK I			Cal. Block	
S/N 05307E *	Freq. 3.5 MHZ		Range Cal. 2.083"	
Reject OFF	Serial No. 41873		Calibration Checks	
Damp. MIN	Coax. Cable 6' BNC TO PL		IN = 7:40	
Freq. 2	Gain 46 DB		OUT = 11:29	
Rep. Rate 1K				
Filter OFF				
Video NORM				
Couplant SONOTRACE 40 3/4" : 8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
47-002	12	1.708"	1.833"	1.667"	47-035-900	12	1.833"	1.708"	1.604"
47-002	2	1.708"	1.938"	1.646"	47-035-900	2	1.750"	1.688"	1.625"
47-002	4	1.792"	2.042"	1.625"	47-035-900	4	1.750"	1.750"	1.625"
47-002	6	1.708"	1.938"	1.625"	47-035-900	6	1.729"	1.750"	1.604"
47-002	8	1.625"	1.833"	1.521"	47-035-900	8	1.708"	1.688"	1.542"
47-002	10	1.667"	1.875"	1.583"	47-035-900	10	1.750"	1.708"	1.583"
47-003	12	1.750"	1.604"	1.979"	47-036-901	12	1.708"	1.583"	1.667"
47-003	2	1.667"	1.625"	1.979"	47-036-901	2	1.667"	1.542"	1.667"
47-003	4	1.750"	1.667"	1.938"	47-036-901	4	1.705"	1.542"	1.667"
47-003	6	1.625"	1.604"	1.792"	47-036-901	6	1.792"	1.583"	1.771"
47-003	8	1.646"	1.542"	1.771"	47-036-901	8	1.810"	1.604"	1.792"
47-003	10	1.604"	1.604"	2.020"	47-036-901	10	1.810"	1.604"	1.708"

Sketch/Identification

* SEE NCR #029 OF ERRATA

M.R. Martin, ANII 0-14-82

Ultrasonic Examination Report



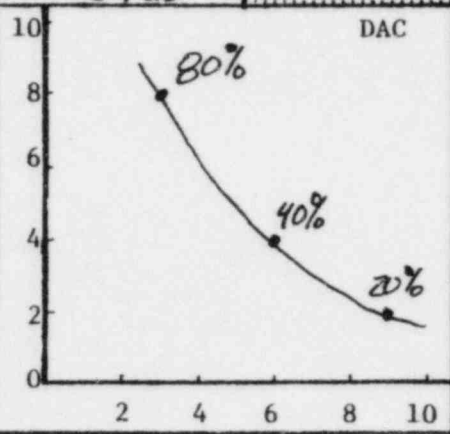
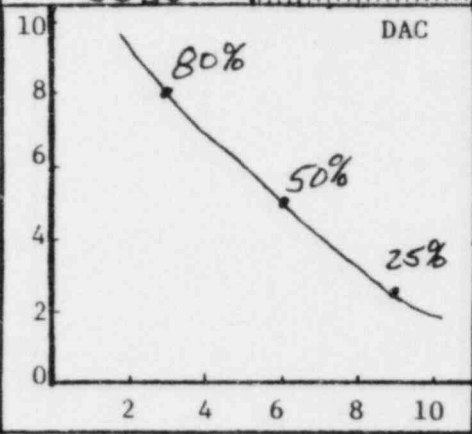
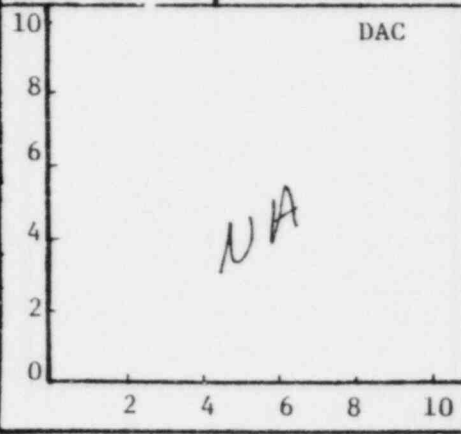
Customer <i>L P & L</i>		Plant <i>WATERFORD</i>		Unit <i>3</i>	Loop/Zone <i>A/47</i>	Iso/Drawing No. <i>ZONE 47 REV 2 FC.5</i>	
Procedure <i>151-2.2 R.O FC.2</i>		Exam Surface <i>O. D.</i>	Examiner/Level <i>Michael W. Shaw II</i>		VCR Supervisor <i>Daniel Jensen</i>		Date <i>10-9-82</i>
Component/Piping System <i>MAIN & EMERGENCY FEED HEADER "A"</i>			Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-125</i>	Couplant: <i>SONOTACE</i> Type <i>40</i> Batch No <i>8124</i>	

Continuation Sheet Attached
 Yes No

Transducer	0°	45°	60°	Instrument			
S/N	<i>NA</i>	<i>607152</i>	<i>NA</i>	Mfg.	<i>SONIC</i>	Model	<i>MARK I</i>
Size		<i>.50" DIA</i>		S/N	<i>04405C</i>	RepRate	<i>1K</i>
Frequency		<i>2.25MHz</i>		Reject	<i>OFF</i>	Filter	<i>OFF</i>
Beam Angle		<i>45°</i>		Damp	<i>MIN</i>	Coax	<i>6 BNC-MD</i>
				Freq.	<i>2.0</i>	Video	<i>NORM</i>

Field Changes:
 Yes No
 If Yes, Number *2*

Calibration 0°			2 & 5 Scan						7 & 8 Scan						Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°			
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out		
<i>1 T</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3.0</i>				<i>80%</i>	<i>3.0</i>					<i>NA</i>	<i>NA</i>	<i>8:50</i>	<i>11:45</i>	<i>NA</i>	<i>NA</i>	
<i>2 T</i>			<i>50%</i>	<i>6.0</i>				<i>40%</i>	<i>6.1</i>											
<i>3 T</i>			<i>25%</i>	<i>9.0</i>				<i>20%</i>	<i>9.4</i>											
Ref. dB																				
			<i>55db</i>					<i>59db</i>												



Additional Comments/Sketch

M.R. Martin, ANEI 10-14-82



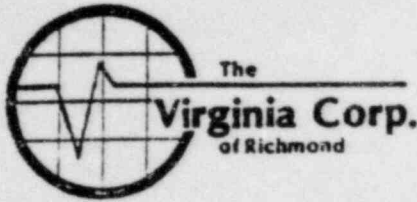
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Ultrasonic Examination Report - Continuation Sheet

Page of

Customer <i>L P & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>A147</i>	Iso/Drawing No. <i>ZONE 47 REV2 FCS</i>
Procedure <i>ISI-2.2 R.O. FCS</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Michael J. Alms II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-9-82</i>
Component/Piping System <i>MAIN + EMERGENCY FEED HEADS</i>	Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-125</i>	Couplant: Type & Batch # <i>SONOTRACE 40 1/2" B124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
47-002	NA	YES	YES	YES	NA		CLEAN	Ground	NI	SAT	
47-003		YES	YES	YES			CLEAN	Ground	NI	SAT	
47-035-900		YES	YES	YES			CLEAN	Ground	NI	SAT	
47-036-901		PAR	YES	YES		<i>SWEEPOLCT</i>	CLEAN	Ground	NI	SAT	



M.R. Martin, ANFI 9-29-82
 Magnetic Particle

Examination Report

Customer <i>LP+L</i>		Plant <i>Waterford</i>	Unit <i># 3</i>	Loop/Zone <i>2/48</i>
Procedure <i>ISI-4.3 Rev.0 EC.1</i>		Examiner/Level <i>Michael E. Smith / II</i>	VCR Supervisor <i>Daniel Jones</i>	Date <i>9-23-82</i>
Component/Piping System <i>Main + Emergency Feed Header B outside cont.</i>		ISO Drawing No. <i>Zone 48 Rev. 2 EC. 3</i>	Surface Condition <i>GROUND</i>	
Type of Particles Wet <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input checked="" type="checkbox"/> Fluorescent <input type="checkbox"/>		Manufacturer <i>MAGNAFLUX</i>	Type <i>8A red</i>	Batch Number <i>81M110</i>
Current AC <input checked="" type="checkbox"/> DC <input type="checkbox"/> HWDC <input type="checkbox"/>	Machine Mfr. <i>Parker Research</i>	Type/Model <i>Contour Probe</i>	Serial No. <i>7133</i>	
Magnetization Continuous <input checked="" type="checkbox"/> Residual <input type="checkbox"/>	Coil N/A Amps. N/A No. Turns	Prods Spacing N/A Amps.	Yoke 6" Spacing	

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
<i>48-034</i>	<i>Adequate field WAS verified using MPEI #17</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



The Virginia Corp.
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W.R. Martin, ANII 9-29-82
Magnetic Particle

Examination Report

Customer LP+L	Plant Waterford	Unit # 3	Loop/Zone 2/48
Procedure ISI-4.3 Rev. 0 FC. 1	Examiner/Level Michael E. Smith / II	VCR Supervisor Daniel Jensen	Date 9-24-82
Component/Piping System MAIN + EMERGENCY FEED HEADER B. outside.	ISO Drawing No. ZONE 48-REV 2 FC. 3	Surface Condition GROUND	
Type of Particles Wet <input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input checked="" type="checkbox"/> Fluorescent <input type="checkbox"/>	Manufacturer MAGNAFLUX	Type 8A Red	Batch Number 81M110
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC	Machine Mfr. Parker Research	Type/Model Contour Probe	Serial No. 7133
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil N/A Amps. N/A No. Turns	Prods N/A Spacing N/A Amps.	Yoke 6" Spacing

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
48-001	Adequate field was verified using	✓		✓	
48-002	MP-I # 17	✓		✓	
48-003		✓		✓	



The Virginia Corp.
of Richmond

M.R. Martin, ANET 9-29-82
Magnetic Particle

Examination Report

Customer LP+L	Plant Waterford	Unit # 3	Loop/Zone N/A 148
Procedure ISI-4.3 Rev.0 FC.1	Examiner/Level Michael E. Smith II	VGR Supervisor Manuel Gomez	Date 9-26-82
Component/Piping System MAIN + Emergency Feed Header B outside CONT.	ISO Drawing No. ZONE 48 Rev. 2 FC. 3	Surface Condition GROUND	
Type of Particles Wet <input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input type="checkbox"/> Fluorescent <input type="checkbox"/>	Manufacturer MAGNAFLUX	Type 8A Red	Batch Number 81M110
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC	Machine Mfr. Parker Research	Type/Model Contact Probe	Serial No. 4604
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil N/A Amps. N/A No. Turns	Prods N/A Spacing N/A Amps.	Yoke 6" Spacing

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
48-005	Adequate field was verified using	✓		✓	
48-011	MPEE # 17	✓		✓	
48-012		✓		✓	
48-013		✓		✓	
48-014		✓		✓	
48-015		✓		✓	



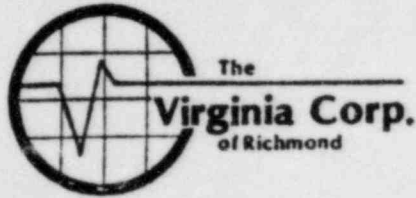
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of Richmond

G.V.R. Martin, ANII 9-29-82
Magnetic Particle

Examination Report

Customer <i>LP & L</i>		Plant <i>WATERFORD</i>		Unit <i>3</i>		Loop/Zone <i>NA 48</i>	
Procedure <i>ISI 4.3 REV-0 FC-1</i>		Examiner/Level <i>Robert W Anderson II</i>		VGR Supervisor <i>Daniel Jones</i>		Date <i>9-27-82</i>	
Component/Piping System <i>MAIN & EMERGENCY FEED HEADER B-OUTSIDE COME</i>				ISO Drawing No. <i>ZONE 48 REV-2 FC-3</i>		Surface Condition <i>GROUND</i>	
Type of Particles Wet <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input checked="" type="checkbox"/> Flourescent <input type="checkbox"/>				Manufacturer <i>MAGNAFLUX</i>		Type <i>8A RED</i>	Batch Number <i>81MHO</i>
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC		Machine Mfr. <i>PARKER RESEARCH</i>		Type/Model <i>CONTOUR PROBE</i>		Serial No. <i>4604</i>	
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual		Coil <i>NA</i> Amps. <i>NA</i> No. Turns		Prods <i>NA</i> Spacing <i>NA</i> Amps.		Yoke <i>5"</i> Spacing	

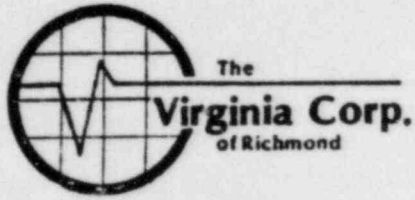
Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
<i>48-035</i>	<i>ADEQUATE FIELD WAS VERIFIED USING MPFI #17</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



Magnetic Particle
W.R. Martin, A N II 10/1/82
Examination Report

Customer LP+L	Plant Waterford	Unit # 3	Loop / Zone N/A / 48
Procedure ISI-4.3 Rev. 0 FC. 1	Examiner / Level Michael E. Smith II	VCR Supervisor Daniel Jensen	Date 9-28-82
Component / Piping System Main + Emergency Feed Header B outside container zone 48 Rev. 7 FC. 1	ISO Drawing No. 3	Surface Condition GROUND	
Type of Particles Wet <input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input checked="" type="checkbox"/> Fluorescent <input type="checkbox"/>	Manufacturer Magnaflux	Type 8A Red	Batch Number 81M110
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC	Machine Mfr. Parker Research	Type / Model Contour Probe	Serial No. 4604
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil N/A Amps. N/A No. Turns	Prods N/A Spacing N/A Amps.	Yoke 6" Spacing

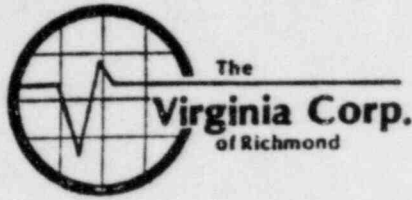
Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
48-004	Adequate field was verified using	✓		✓	
48-022	MPEI # 15	✓		✓	
48-023		✓		✓	
48-024		✓		✓	
48-025		✓		✓	



W.R. Martin, ANTF 9-29-82
Magnetic Particle
Examination Report

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>NA 48</i>
Procedure <i>ISI 4.3 REV-0 FC-1</i>	Examiner/Level <i>Blair W Anderson II</i>	VCR Supervisor <i>Ronald Jensen</i>	Date <i>9-28-82</i>
Component/Piping System <i>MAIN - EMERGENCY FEED HEADER B - OUTSIDE CONT.</i>		ISO Drawing No. <i>ZONE 48 REV-2 FC-3</i>	Surface Condition <i>GROUND</i>
Type of Particles Wet <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input checked="" type="checkbox"/> Fluorescent <input type="checkbox"/>	Manufacturer <i>MAGNAFLUX</i>	Type <i>8A RED</i>	Batch Number <i>81M110</i>
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC	Machine Mfr. <i>PARKER RESEARCH</i>	Type/Model <i>CONTOUR PROBE</i>	Serial No. <i>4604</i>
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil <i>NA</i> Amps. <i>NA</i> No. Turns	Prods <i>NA</i> Spacing <i>NA</i> Amps.	Yoke <i>6"</i> Spacing

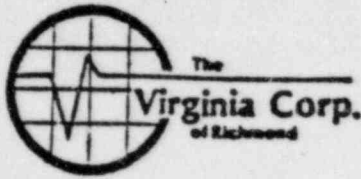
Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
<i>48-007</i>	<i>ADEQUATE FIELD WAS VERIFIED</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>48-009</i>	<i>USING MPFI #15</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



Magnetic Particle
M.R. Martin, ANIS 10/1/82
Examination Report

Customer LPL		Plant Waterford		Unit #3	Loop/Zone N/A 48
Procedure ISI-4.3 Rev. 0 F.C. 1		Examiner/Level Michael E. Smith II		VCR Supervisor Donult Jensen	Date 9-30-82
Component/Piping System Main + Emergency Feed Header & Outside Cont.			ISO Drawing No. Zone 48 Rev. 2 F.C. 4		Surface Condition Ground
Type of Particles Wet <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Visible <input type="checkbox"/> Fluorescent <input type="checkbox"/>		Manufacturer Magnaflux		Type 8A Red	Batch Number 81M110
Current <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> HWDC	Machine Mfr. Parker Research		Type/Model Contour Probe		Serial No. 4604
Magnetization <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Residual	Coil N/A Amps. N/A No. Turns	Prods N/A Spacing N/A Amps.	Yoke 6" Spacing		

Weld / Item	Comments	MT Results		VT Results	
		NRI	RI	Sat	Unsat
48-026	Adequate field was verified using MPEI #15	✓		✓	



W.R. Martin, ANII 9-29-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer L.P. + L.	Plant Waterford	Unit 3	Loop/Zone NA/48
Component/Piping System Feedwater Header-B	Examiner/Level Kevin White III	Date 9-25-82	
Procedure ISI-2.5, R0	Iso/Drawing No. Zone 48, R2, F.C. 3	VCR Supervisor Daniel Jensen	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument	Transducer		Calibration
Mfgr. Kraut-Krammer	Mfgr. KB-Aerotech	Size 1/2"	Cal. Block UT-125
Model USL-37			Cal. Block
S/N 210021	Freq. 2.25 MHz		Range Cal. 1.50"
Reject Min.	Serial No. J02172		Calibration Checks IN: 9:00 AM OUT: 12:55 PM
Damp. Min.			
Freq. 2.5	Coax. Cable BNC-BNC		
Rep. Rate 1K	Gain 40db		
Filter Hi			
Video NA			
Couplant Sonotrace 40 Batch #8124			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
48-001	2	1.18	1.25	* See note	48-002	2	1.28	1.53	1.25
48-001	4	1.28	1.28	below	48-002	4	1.25	1.44	1.25
48-001	6	1.25	1.25		48-002	6	1.30	1.44	1.25
48-001	8	1.30	1.20		48-002	8	1.30	1.44	1.20
48-001	10	1.25	1.18		48-002	10	1.28	1.47	1.25
48-001	12	1.25	1.20	↓	48-002	12	1.25	1.47	1.28
48-034	2	1.28	1.20	1.20	48-003	2	1.25	1.40	1.50
48-034	4	1.25	1.25	1.25	48-003	4	1.25	1.34	1.50
48-034	6	1.30	1.28	1.28	48-003	6	1.28	1.38	1.40
48-034	8	1.30	1.28	1.28	48-003	8	1.28	1.40	1.44
48-034	10	1.28	1.25	1.25	48-003	10	1.18	1.40	1.40
48-034	12	1.25	1.25	1.25	48-003	12	1.25	1.40	1.44

Sketch/Identification

* The readings for Scan 5 for weld 48-001 were off the screen and will be checked at a later date.

Readings are in inches.

M.R. Martin, ANFI 9-29-82



Ultrasonic Examination Report

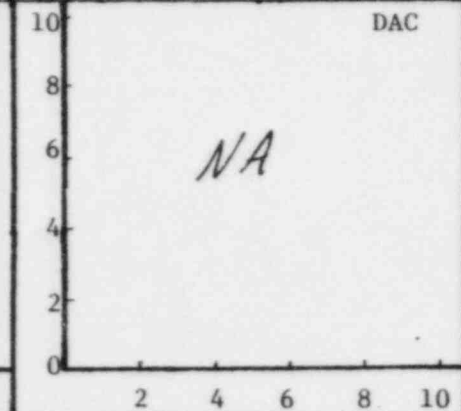
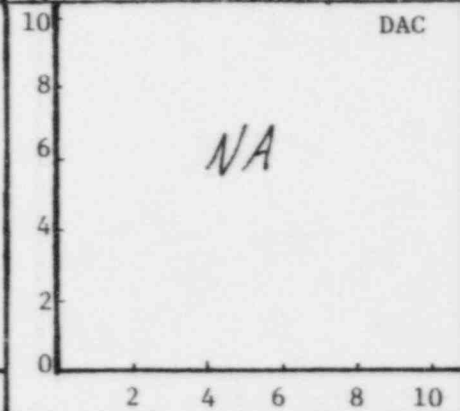
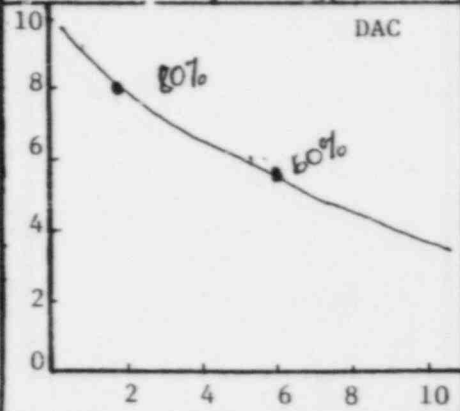
Customer <i>L.P.L.</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/48</i>	Iso/Drawing No. <i>Zone 48, R.2, FC.3</i>
Procedure <i>ISI-23, R.O.F.C.2</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Kenneth White</i>	VCR Supervisor <i>Daniel Jones</i>	Date <i>9-25-82</i>
Component/Piping System <i>Feedwater Header - B</i>	Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-12.5</i>	Couplant: <i>Sonotrace</i> Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *2*

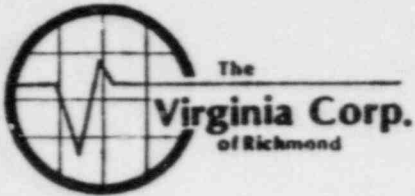
Transducer	Beam Angle			Instrument			
	0°	45°	60°	Mfg.	Model	RepRate	Filter
S/N	<i>102172</i>	<i>NA</i>	<i>NA</i>	<i>Kraut-Kramer</i>	<i>USL-37</i>	<i>1K</i>	<i>Hi</i>
Size	<i>1/2"</i>			S/N	<i>210021</i>		
Frequency	<i>2.25"</i>			Reject	<i>Min</i>		
Beam Angle	<i>0</i>			Damp	<i>Min</i>		<i>12 BNC</i>
				Freq.	<i>2.5</i>	Video	<i>NA</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1/4T</i>	<i>80%</i>	<i>2.0</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>		<i>NA</i>	<i>NA</i>	<i>NA</i>							
<i>3/4T</i>	<i>60%</i>	<i>5.9</i>														
Ref. dB	<i>40db</i>		<i>NA</i>				<i>NA</i>									



Additional Comments/Sketch
None

M.R. Martin, ANIF 9-29-82



Ultrasonic Examination Report

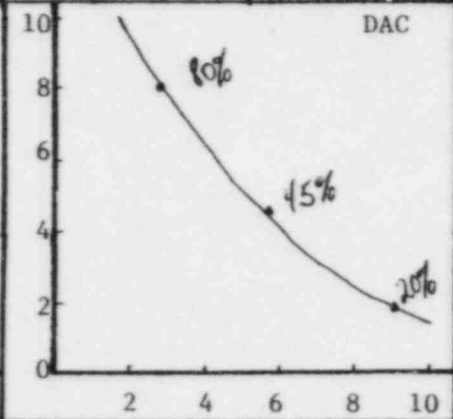
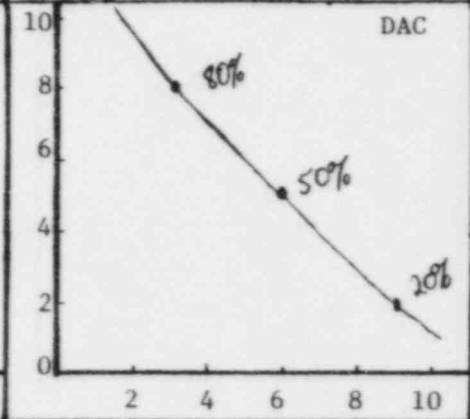
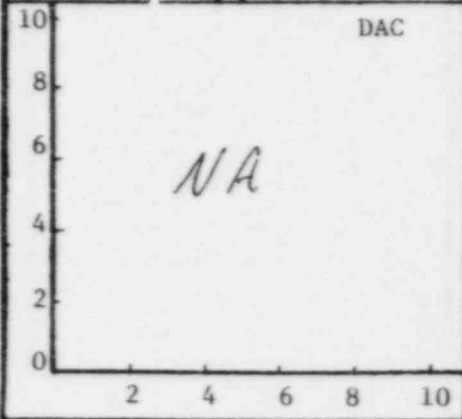
Customer L.P.+L.	Plant Waterford	Unit 3	Loop/Zone NA/48	Iso/Drawing No. Zone 48, R.2, FC.3
Procedure ISI-2.2, ROFC.2	Exam Surface OD	Examiner/Level Kwintell/II	VCR Supervisor Daniel Dens	Date 9-25-82
Component/Piping System Feedwater Header "B"	Pipe Size 20"	Weld Type Batt	Cal. Block # UT-125	Couplant: Sonotrace Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **2**

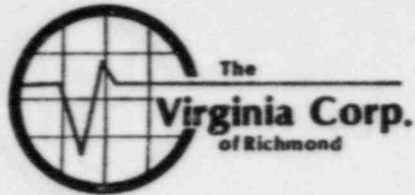
Transducer	0°	45°	60°	Instrument			
S/N	NA	1109140	NA	Mfg.	Sonics	Model	Mark I
Size		1/2"		S/N	023070	RepRate	1K
Frequency		2.25MHz		Reject	off	Filter	off
Beam Angle		45°		Damp	Min	Coax	12'
				Freq.	2	Video	Norm.

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.2	NA		NA	NA	9:15 AM	12:55 PM	NA	NA
2T			50%	6.0			45%	6.0								
3T			20%	9.0			20%	9.4								
Ref. dB	NA		43db				47db									



Additional Comments/Sketch

M.R. Martin, ANII 9-29-82



Ultrasonic Examination Report - Continuation Sheet

Page of

Customer L.P.+L	Plant Waterford	Unit 3	Loop/ Zone NA/ 48	Isd/Drawing No. Zone 48, R.2, FC. 3
Procedure IST-22 R.O.F.C. 2	Exam Surface OD	Examiner/Level Kim-White/z	VCR Supervisor Daniel Jones	Date 9-25-82
Component/Piping System Feedwater Header-B	Pipe Size 20"	Weld Type Butt	Cal. Block UT-125	Couplant: Type & Batch # Sonotrace 40 #8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
48-001	Par.	Yes	No	Yes	Pr.	5 scan - No due to approximate 15° slope of the pipe from the penetration and tapered thickness. Base metal scan - The thickness of the base metal was off the screen on the 5 side. O scan - Partial due the weld transition on the 5 side. See supplemental Data Sheet.	ground	ground	NI	Sat.	
48-004	Yes	Yes	Yes	Yes	Yes		ground	ground	NI	Sat.	
48-002	Yes	Yes	Yes	Yes	Yes		ground	ground	NI	Sat.	
48-003	Yes	Yes	Yes	Yes	Yes		ground	ground	NI	Sat.	

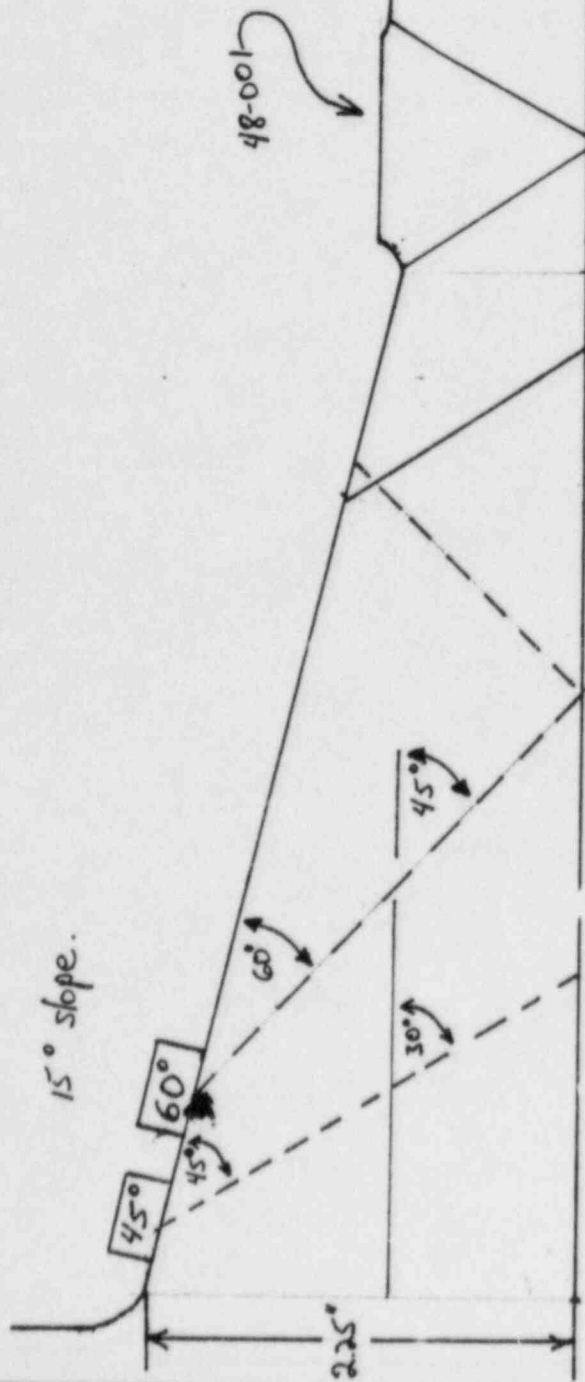
M.R. Martin, ANIS 9-29-82

ULTRASONIC SUPPLEMENTAL DATA SHEET

PAGE OF



15° slope.





M.R. Martin, ANET 10-5-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP+L	Plant Waterford	Unit 3	Loop/Zone NA 48
Component/Piping System Main and Emergency Feed Header	Examiner/Level Mary A. Johnson II	Date 9-27-82	
Procedure ISI 2.5 Rev 0 FC-0	Iso/Drawing No. Zone 48 Rev. 2 FC-3	VCR Supervisor Daniel Jensen	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

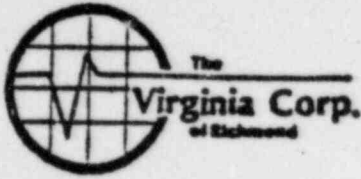
Equipment

Instrument		Transducer		Calibration
Mfgr. Sonic	Mfgr. Gamma Dufp	Size 1/2"	Cal. Block UT-125	Cal. Block
Model Mark I	Freq. 2.25 MHz		Range Cal. 1.56"	
S/N 01058E	Serial No. KB2728		Calibration Checks	
Reject OFF	Coax. Cable 6'		Cal IN 12:00	Cal Out 3:35
Damp. MIN.	Gain 70 db			
Freq. 2				
Rep. Rate 3K				
Filter OFF				
Video Norm				
Couplant Sonotrace 40 8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
48-005	12	1.297"	NA	1.172"					
48-005	2	1.234"		1.172"					
48-005	4	1.281"		1.234"					
48-005	6	1.313"		1.150"					
48-005	8	1.266"		1.188"					
48-005	10	1.359"		1.156"					

Sketch/Identification



W.R. Martin, ANEF 10-5-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer LP4L	Plant Waterford	Unit 3	Loop/Zone NA 48
Component/Piping System B	Examiner/Level <i>Ray A. Lofgren II</i>	Date 9-27-82	
Procedure ISI 2.5 Rev. O.F.C.O	Iso/Drawing No. Zone 48 Rev 2 FC3	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

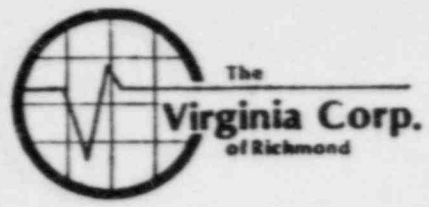
Instrument		Transducer		Calibration
Mfgr. Kraut Kramer	Mfgr. KB Aerotech	Size 1/2"	Cal. Block UT-125	
Model USL-37	Freq. 2.25 MHz		Cal. Block	
S/N 210021	Serial No. J02172		Range Cal. 1.56"	
Reject OFF	Coax. Cable 6'		Calibration Checks	
Damp. OFF	Gain 38 db		Cal. In 8:15	
Freq. 5			Cal Out 10:45	
Rep. Rate 1K				
Filter Low				
Video NA				
Couplant Sonotrace 40				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
48-035	12	1.188	1.203"	1.438"					
48-035	2	1.188	1.219"	1.438"					
48-035	4	1.266	1.266"	1.422"					
48-035	6	1.203	1.250"	1.406"					
48-035	8	1.219	1.219"	1.406"					
48-035	10	1.172	1.203"	1.422"					

Sketch/Identification

M.R. Martin, ANSI 10-5-82



Ultrasonic Examination Report

Customer LP+L	Plant Waterford	Unit 3	Loop/Zone NA/48	Iso/Drawing No. Zone 48 Rev. 2 FC-3
Procedure ISI-2.2 Rev. 0 FC-2	Exam Surface O.D.	Examiner/Level M.A. Salsano II	VCR Supervisor Daniel Jensen	Date 9-27-82
Component/Piping System Main and Emergency Feed Header B	Pipe Size 20"	Weld Type Butt	Cal. Block UT-125	Couplant: Type Sana 40 Batch No 844

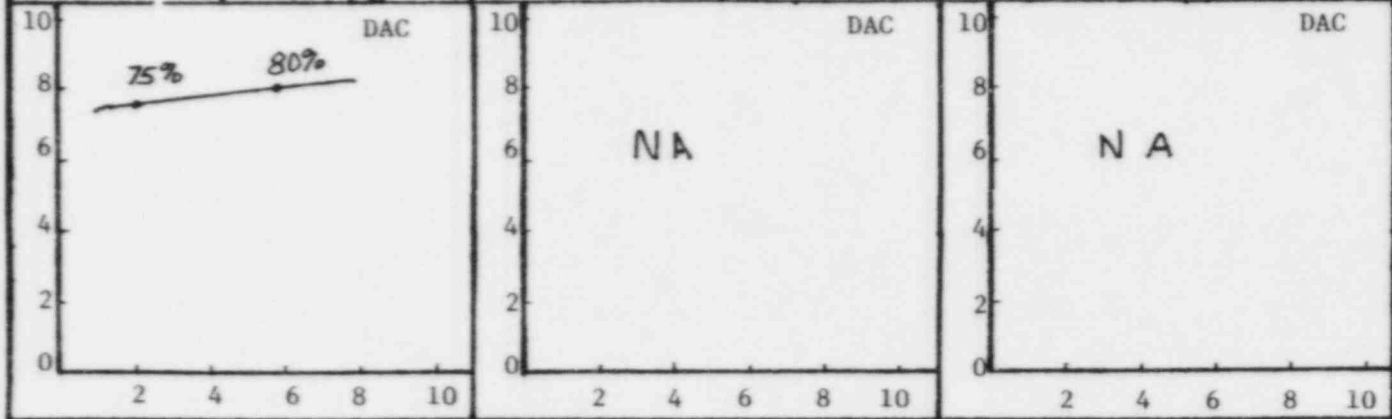
Continuation Sheet Attached
 Yes No

Field Changes:
Yes No
If Yes, Number FC-2

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	KB 2728	NA	NA	Mfr.	Sonic	Model	Mark 1
	1/2"			S/N	01058E	RepRate	3K
	2.25 MHz			Reject	OFF	Filter	OFF
	0°			Damp	Min.	Coax	6'BNC-BNC

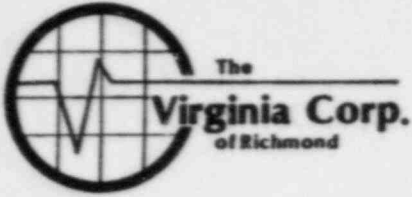
Calibration 0° 2 & 5 Scan 7 & 8 Scan Freq. 2.25 MHz Video Norm

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks					
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°	
											In	Out	In	Out	In	Out
1/4T	75%	2.0	NA	NA			NA	NA			12:00	3:35	NA	NA	NA	NA
3/4T	80%	5.8														
Ref. dB	70 DB															



Additional Comments/Sketch

W.R. Martin, ANEF 10-5-P2



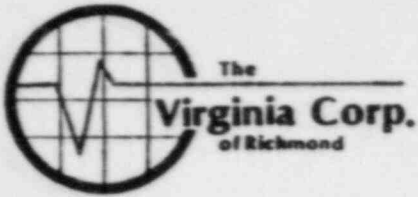
Ultrasonic Examination Report - Continuation Sheet

Page of

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/48</i>	Iso/Drawing No. <i>Zone 48 Rev 2 FC-3</i>
Procedure <i>ISI-22 Rev 1 FC-2</i>	Exam Surface <i>O.D</i>	Examiner/Level <i>Don A. Safirka II</i>		VCR Supervisor <i>Daniel Jensen</i>
Component/Piping System <i>Main and Emergency Feed Header B</i>		Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Date <i>9-27-82</i>
			Cal. Block <i>UT-125</i>	Complant: Type & Batch # <i>Sonotrac 40 S/N 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>48-005</i>	<i>Par</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>Par</i>	<i>Valve Body on 2 side</i>	<i>Ground</i>	<i>Ground</i>	<i>NI</i>	<i>Sat</i>	

W.R. Martin, ANFF 10-5-82.



Ultrasonic Examination Report

Customer LP+L	Plant Waterford	Unit 3	Loop/Zone NA/48	Iso/Drawing No. Zone 48 Rev 2 FC-3
Procedure ISI-2.2 Rev D FC-2	Exam Surface O.D.	Examiner/Level Way A. Rofina II	VCR Supervisor Daniel Denon	Date 9-27-82
Component/Piping System Main and Emergency Feed Header B	Pipe Size 20"	Weld Type	Cal. Block # UT-125	Couplant: Type Sana 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **FC-2**

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	J02172	NA	NA	Mfr. KrautKramer	Model USL-37	RepRate 1K	
	1/2"			S/N 210021	Filter Low	Coax 6' BNC-BNC	
	2.25 MHz			Reject OFF	Damp OFF	Freq. 5.0 MHz	Video NA

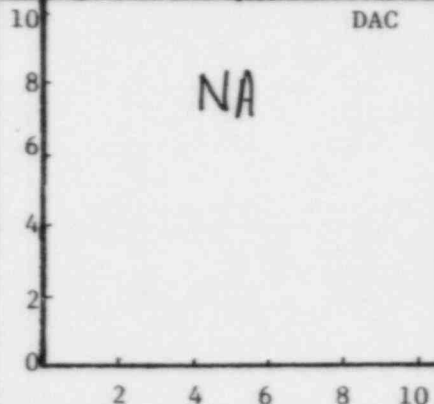
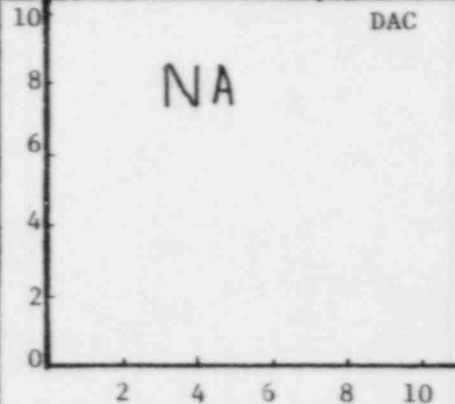
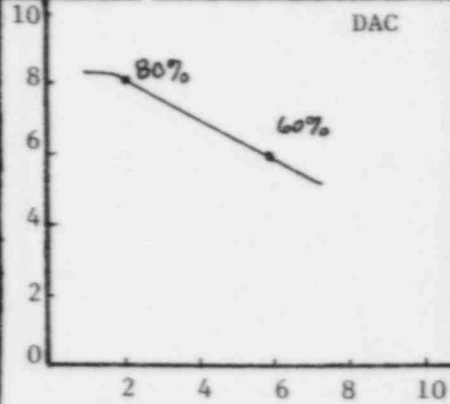
Calibration 0°

2 & 5 Scan

7 & 8 Scan

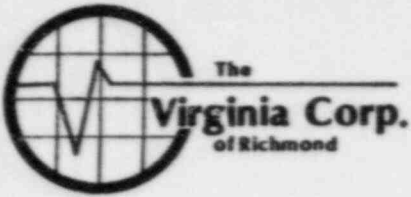
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks					
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°	
											In	Out	In	Out	In	Out
1/4 T	80%	2.0	NA	NA			NA	NA			8:15	10:45	NA	NA	NA	NA
3/4 T	60%	5.8														

Ref. dB **38 DB**



Additional Comments/Sketch

M.R. Martin, ANEI 10-5-82



Ultrasonic Examination Report - Continuation Sheet

Page of

Customer LP-1	Plant Waterford	Unit 3	Loop/ Zone NA / 48	Iso/Drawing No. Zone 48 Rev. 2 FC-3
Procedure ISI-2.2 Rev. D FC-2	Exam Surface O.D.	Examiner/Level <i>M. A. Sefelke II</i>		VCR Supervisor <i>Daniel Jensen</i>
Component/Piping System Main and Emergency Feed Header B	Pipe Size 20"	Weld Type Butt	Cal. Block UT-125	Couplant: Type & Batch # Sonotrace 40 S/N: 8124
Date 9-27-82				

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
48-035	Yes	NA	NA	NA	Par	Par due to Weld Crown Approximately 10% not covered	Ground	Ground	NI	Sat.	

M.R. Martin, ANII 10-5-82

Ultrasonic Examination Report



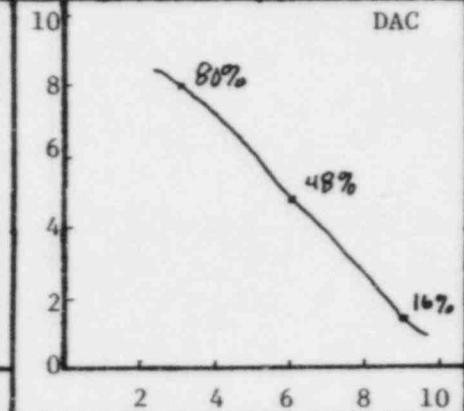
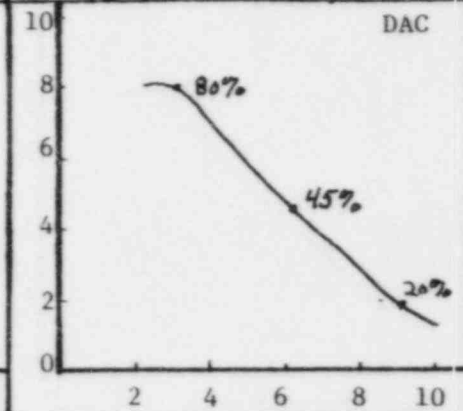
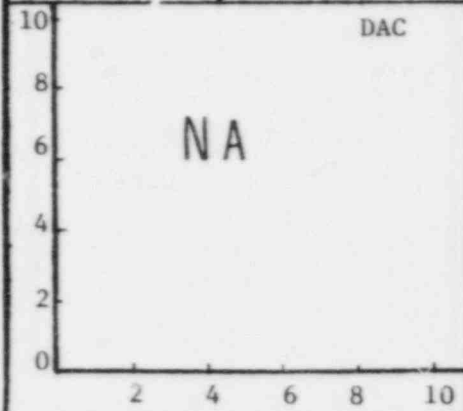
Customer <i>h.P. & L.</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/4B</i>	Iso/Drawing No. <i>Zone 4B Rev. 2 FC-3</i>
Procedure <i>ISI-2.2 Rev. DFC-2</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Howard D. Johnson II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>9-27-82</i>
Component/Piping System <i>Main and Emergency Feed Header B</i>	Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-125</i>	Couplant: <i>Type Sono 40</i>
			Batch No. <i>8124</i>	

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *FC-2*

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	NA	M04140	NA	Mfr.	Sonic	Model	Mark I
		1/2"		S/N	01930E	RepRate	3K
		2.25 MHz		Reject	OFF	Filter	OFF
		45°		Damp	Min.	Coax	12' BNC-DNC

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0			80%	3.1			NA	NA	8:30	12:10	NA	NA
2T			45%	6.1			48%	6.0					12:15	3:40		
3T			20%	9.0			16%	9.3								
Ref. dB			46 DB				51 DB									



Additional Comments/Sketch

M.R. Martin, ANIF 10-5-82

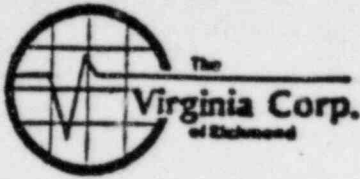


Ultrasonic Examination Report - Continuation Sheet

Page of

Customer <i>L.P.L.</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/4B</i>	Iso/Drawing No. <i>Zone 4B Rev. 2 FC-3</i>
Procedure <i>ISI-2.2 Rev. D FC-2</i>	Exam Surface <i>A.D.</i>	Examiner/Level <i>Mark D. Lopez II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>9-27-82</i>
Component/Piping System <i>Main and Emergency Feed Header B</i>	Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-125</i>	Couplant: Type & Batch # <i>Sonotrace 40 SN: 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
48-005	NA	No	Yes	Par	NA	Valve Body on 2 Side	Ground	Ground	NI	Sat	
48-035	NA	Yes	Yes	Par	NA	Par due to Weld Crown Approximately 10% net covered	Ground	Ground	NI	Sat	



M.R. Martin, ANSI 9-29-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer L.P.+L.	Plant Waterford	Unit 3	Loop/Zone 14/48
Component/Piping System Feedwater header-B	Examiner/Level Kim White/II	Date 9/28/82	
Procedure ISI-2.5, R.O	Iso/Drawing No. Zone 48, R.2, FC.3	VCR Supervisor Daniel Jensen	Continuation Sheet Attached [] Yes [X] No

Equipment

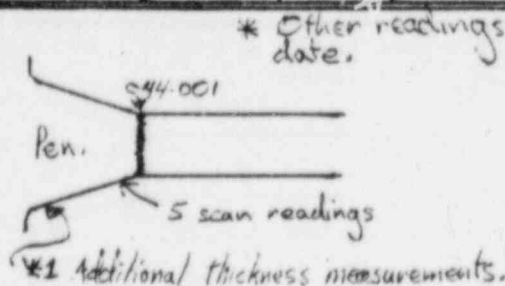
Instrument	Transducer		Calibration
Mfgr. Sonics	Mfgr. KB-Aerotech	Size 1/2"	Cal. Block UT-125
Model Mark I			Cal. Block
S/N 01930E	Freq. 2.25MHz		Range Cal. 2 1/2"
Reject off			Calibration Checks
Damp. Min.	Serial No. KB-2728		
Freq. 2			IN: 7:45 AM
Rep. Rate 1K	Coax. Cable PC to BNC 6'		OUT: 10:00 AM
Filter off			
Video Norm	Gain 73dB		
Couplant Sorbothane 40, #8124			

Examination Results

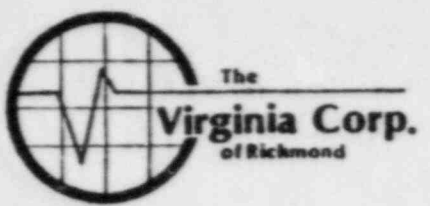
Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
48-001	2	* See info	* See info	1.150					
	4	below	below	1.200					
	6			1.200					
	8			1.200					
	10			1.250					
	12	↓	↓	1.250					

Sketch/Identification

*1 Measure point	Additional Readings
2	2.100
4	2.200
6	2.200
8	2.200
10	2.200
12	2.200



M.R. Martin ANEF 9-29-82



Ultrasonic Examination Report

Customer L.P.+L.	Plant Waterford	Unit 3	Loop/Zone NA/48	Iso/Drawing No. Zone B, R.2, FC.3
Procedure IST-22, ROFC 2.	Exam Surface C.D.	Examiner/Level Kevin White / II	VCR Supervisor Daniel Jensen	Date 9/28/82
Component/Piping System Feedwater Header-B	Pipe Size 20"	Weld Type Butt	Cal. Block # UT-125	Couplant: Sonotrace 40 Type → Batch No. 8124

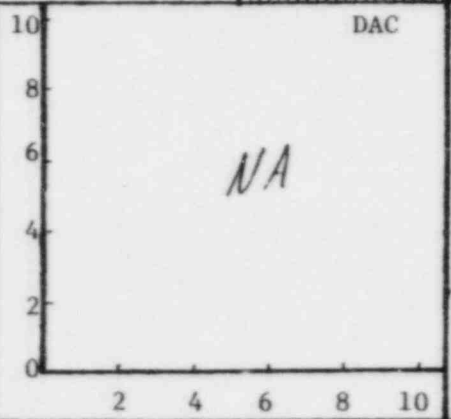
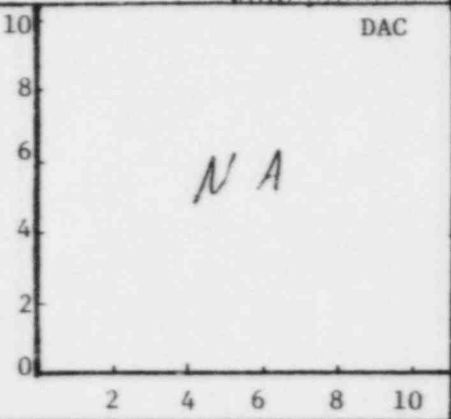
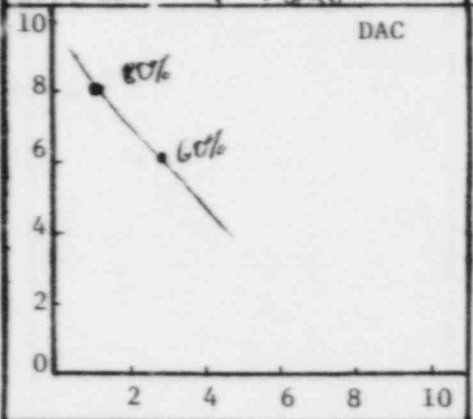
Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **2**

Transducer	0°	45°	60°	Instrument			
S/N	KR-3728	NA	NA	Mfr.	Sonic	Model	Mark I
Size	1/2"			S/N	01930E	RepRate	1K
Frequency	2.25MHz			Reject	OFF	Filter	off
Beam Angle	0°			Damp	Min	Coax	PC-RAX, G'
				Freq.	2.	Video	Norm

Calibration 0°			2 & 5 Scan				7 & 8 Scan			
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:	
					Scribe Line	50% DAC			Scribe Line	50% DAC
1/4T	80%	1.2	NA	NA	NA		NA	NA	NA	
3/4T	60%	3.2								
Ref. dB	73db									

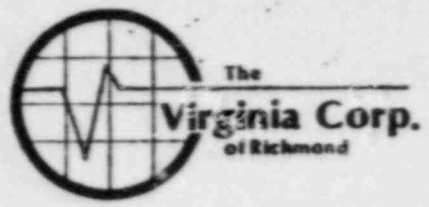
Calibration Checks					
0°		45°		60°	
In	Out	In	Out	In	Out
7.5A	10.00A	NA	NA	NA	NA



Additional Comments/Sketch

The screen range was adjusted for thicker material.

M.R. Martin ANFF 9-29-82



Ultrasonic Examination Report

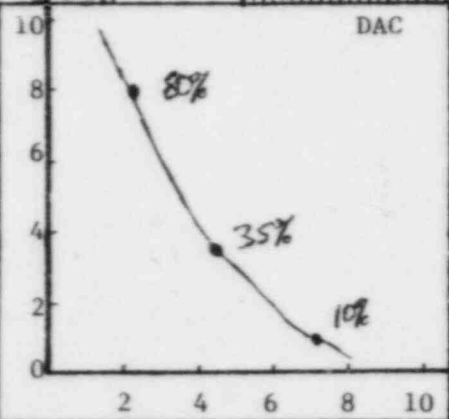
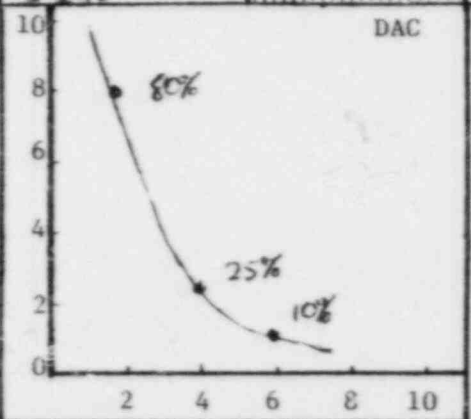
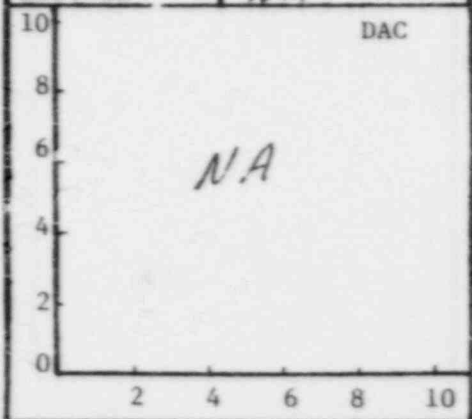
Customer L.P.+L.	Plant Waterford	Unit 3	Loop/Zone NA/48	Iso/Drawing No. Zone 48, R2, FC.3.
Procedure IST-2.2, R0, FC 2	Exam Surface O.D.	Examiner/Level Kevin White II	VER Supervisor Daniel Dem...	Date 9/28/82
Component/Piping System Feedwater Header-B	Pipe Size 20"	Weld Type Butt	Cal. Block No UT-125	Couplant: Sonotrace Type 40 Batch No. 8129

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **2**

Transducer	0°	45°	60°	Instrument				
	S/N	NA	NA	F18164	Mfr.	Sonic	Model	Mark I
	Size			1/2	S/N	01058E	RepRate	1K
	Frequency			2.25	Reject	off	Filter	off
	Beam Angle			59°	Damp	Min	Coax	6' BNC-Mel.
				Freq.	2.	Video	Norm	

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	2.0	NA		80%	2.2	NA		NA	NA	NA	NA	800	10105AM
2T			25%	4.0			35%	4.3								
3T			10%	6.0			10%	7.3								
Ref. dB	NA		52db				50db									

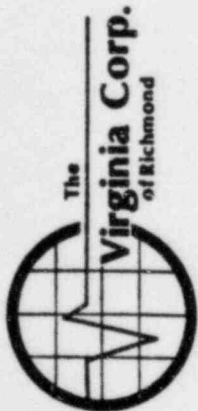


Additional Comments/Sketch

W.R. Martin, ANFI 9-29-82

Ultrasonic Examination Report - Continuation Sheet

Page of

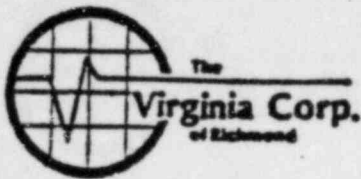


Customer L.R.+L Plant Waterford Unit 3
 Procedure ISI-22, R.O.F. 2 Exam Surface O.D. Examiner/Level Kevin White II
 Component/Piping System Feedwater Header-B Pipe Size 20" VCR Supervisor Dennis Jones
 Date 9/28/82
 Cal. Block Couplant: Type & Batch # UT-125 Soudaluc 40, #124

Iso/Drawing No. Zone 48 R. 2, FC3

Weld No.	Base Metal Scan	Scan Direction			Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8		0	Base Metal	Weld	UT	
48001	Par	NA	Yes	Par	0	Smooth	Smooth	NI	Sat	None

None were because they were partially examined on a previous date but could not due to the thick transition and slope of S side.



M.R. Martin, ANSF 10-5-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LPTL	Plant Waterford	Unit 3	Loop/Zone N/A /48
Component/Piping System Main feed header B-outside	Examiner/Level Michael W. Blaw II	Date 9-30-82	
Procedure ISI-2.5 R.O	Isoc/Drawing No. Zone 48 R.2 FC.4	VCR Supervisor Daniel Jensen	Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Equipment

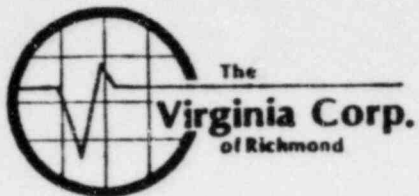
Instrument	Transducer		Calibration
Mfgr. Krautkramer	Mfgr. KR-Aerotech	Size .5"	Cal. Block UT-125
Model USL-37			Cal. Block N/A
S/N 210021	Freq. 2.25 MHz		Range Cal. 1.031 @ 80 div.
Reject MIN.	Serial No. J02172		Calibration Checks
Damp. MIN.	Coax. Cable 12' BNC to BNC		IN - 0900
Freq. 2.5	Gain 40 db		OUT - 11:30
Rep. Rate 1K			IN - 1:00
Filter Low			OUT - 4:30
Video N/A			
Couplant Sonotrac 40 8124			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
48-007	12	1.134	1.031	Valve	48-036	12	1.121	1.069	Valve
48-007	2	1.108	1.043		48-036	2	1.108	1.043	
48-007	4	1.095	1.031		48-036	4	1.159	.992	
48-007	6	1.005	1.005		48-036	6	1.108	.966	
48-007	8	.992	1.005		48-036	8	1.095	1.056	
48-007	10	.992	1.005	↓	48-036	10	1.134	1.031	↓
48-009	12	1.121	Valve	1.031	48-037	12	1.005	.979	1.018
48-009	2	1.108		1.031	48-037	2	1.031	.979	1.043
48-009	4	1.018		1.031	48-037	4	1.069	.979	1.005
48-009	6	.979		1.031	48-037	6	1.043	.966	1.018
48-009	8	1.056		1.081	48-037	8	1.031	.979	1.031
48-009	10	1.108	↓	1.031	48-037	10	.953	.979	1.031

Sketch/Identification

M.R. Martin, ANIS 10-5-82



Ultrasonic Examination Report

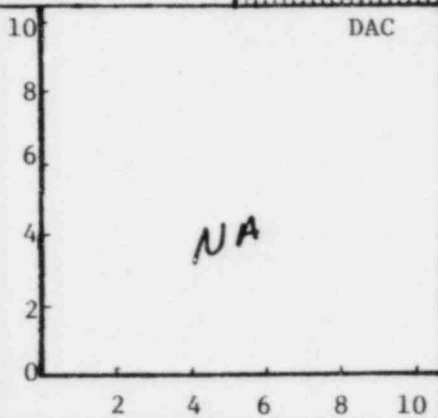
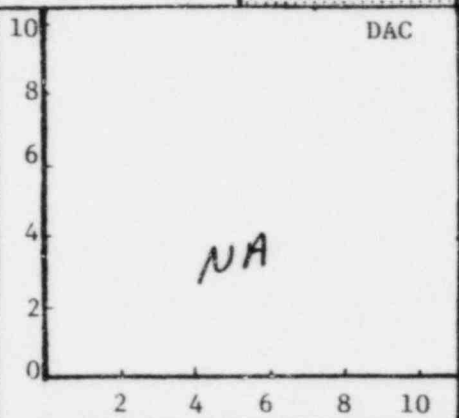
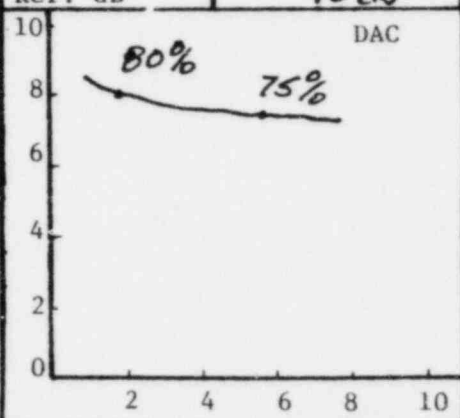
Customer L P & L	Plant WATERFORD	Unit 3	Loop/Zone NA/4B	Iso/Drawing No. ZONE 4B REV 2 FC 4
Procedure ISI-2.2 REV 2 FC 2	Exam Surface O.D.	Examiner/Level Michael W. Clutz	VCR Supervisor Daniel Jensen	Date 9-30-82
Component/Piping System MAIN + EMERGENCY FEED HEADS	Pipe Size 20"	Weld Type BUTT	Cal. Block # UT-125	Couplant: Type 40 Batch No 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **2**

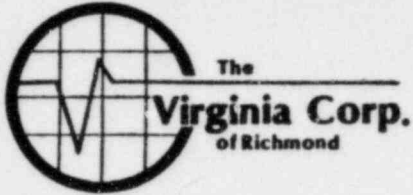
Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	J02172	NA	NA	Mfr.	KRAUTKRAMER	Model	USG-37
	.50" DIA	↓	↓	S/N	210021	RepRate	1K
	2.25MHz	↓	↓	Reject	MIN	Filter	LOW
0°	↓	↓	Damp	MIN	Coax	12' BNC-BNC	
			Freq.	2.5	Video	NA	

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks							
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
1/4 T	80%	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1:00	4:30				
3/4 T	75%	5.6																
1 T		8.0																
Ref. dB	40 dB																	



Additional Comments/Sketch

M.R. Martin, ANEI 10-5-82

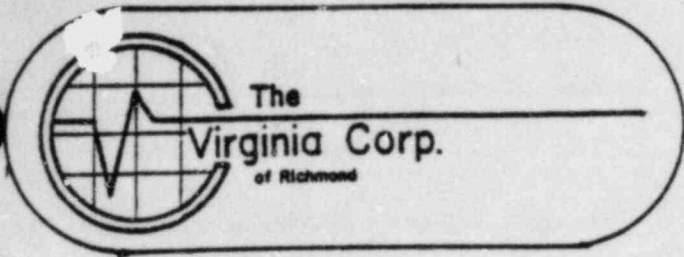


Ultrasonic Examination Report - Continuation Sheet Page 2 of 3

Customer <i>L P & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>NA/ 4B</i>	Iso/Drawing No. <i>ZONE 4B REV 2 PG. 4</i>
Procedure <i>ISI Z.E. REV 0 FCE</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Michael V. Blum II</i>		VCR Supervisor <i>Daniel J. Jans</i>
Date <i>9-30-82</i>				
Component/Piping System <i>Main - CAROLINE FEED HEADER "B"</i>	Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-125</i>	Couplant: Type & Batch # <i>SOUNDTRACE 40 3/4 B124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>4B-007</i>	<i>PAR</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>PAR</i>	<i>VALVE, WELD CROWN</i>	<i>Smooth</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	<i>*</i>
<i>4B-009</i>	<i>PAR</i>				<i>PAR</i>	<i>VALVE, WELD CROWN</i>	<i>Smooth</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	<i>*</i>
<i>4B-036</i>	<i>PAR</i>				<i>PAR</i>	<i>VALVE, WELD CROWN</i>	<i>Smooth</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	<i>*</i>
<i>4B-037</i>	<i>YES</i>				<i>PAR</i>	<i>Weld CROWN</i>	<i>Smooth</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>	<i>*</i>

* SEE ATTACHED SHEET



DATE 9-30-82

PAGE 3 OF 3

TO NA

SUBJECT EXPLANATION OF
PARTIALS ON ZONE 48

48-007 PARTIAL BASE METAL SCAN DUE TO VALVE.
PARTIAL 0° SCAN DUE TO WELD CROWN.

48-009 PARTIAL BASE METAL SCAN DUE TO VALVE.
PARTIAL 0° SCAN DUE TO WELD CROWN.

48-036 PARTIAL BASE METAL SCAN DUE TO VALVE.
PARTIAL 0° SCAN DUE TO WELD CROWN.

48-037 PARTIAL 0° SCAN DUE TO WELD CROWN.

SIGNED Michael W. Blue

M.R. Martin, ANII 10-5-82



Ultrasonic Examination Report

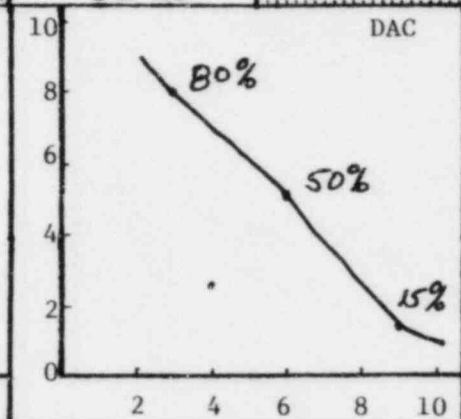
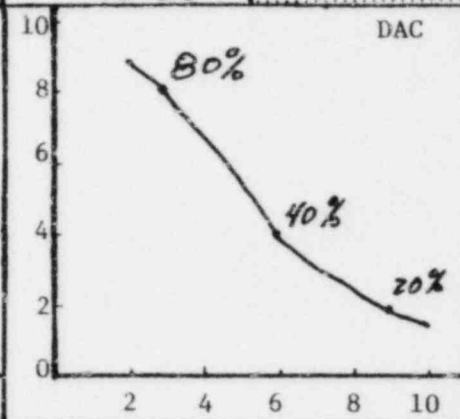
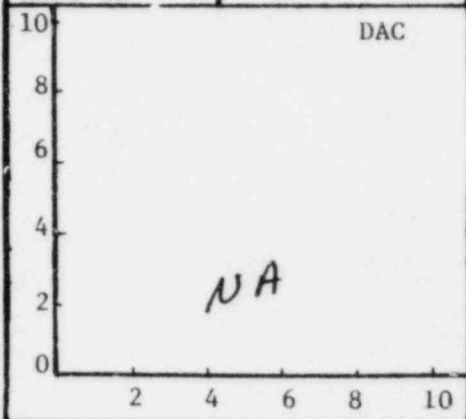
Customer L P & L	Plant WATERFORD	Unit 3	Loop/Zone NA/4B	Iso/Drawing No. ZONE 4B REV 2 FC 4
Procedure ISI-2.2 REV 0 FC 2	Exam Surface O. D.	Examiner/Level Michael W. Blaw II	VCR Supervisor Daniel Dineen	Date 9-30-82
Component/Piping System MAIN + EMERGENCY FEED HEADER "B"	Pipe Size 20"	Weld Type BUTT	Cal. Block UT-125	Couplant: Type 40 Batch No B124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **2**

Transducer	0°	45°	60°	Instrument			
S/N	NA	J22935	NA	Mfr.	SONIC	Model	MARK I
Size	↓	.50" DIA	↓	S/N	037046	RepRate	1K
Frequency	↓	2.25MHz	↓	Reject	OFF	Filter	OFF
Beam Angle	↓	45°	↓	Damp	MIN	Coax	12' BUC-BLK
				Freq.	2.0	Video	NORM

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks									
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
1 T	NA	NA	80%	3.0	↓	↓	↓	80%	3.1	↓	↓	↓	NA	NA	9:30	11:35	NA	NA
2 T			40%	6.0				50%	6.0									
3 T			20%	9.0				15%	9.2									
Ref. dB	↓	↓	48 db						52 db									



Additional Comments/Sketch

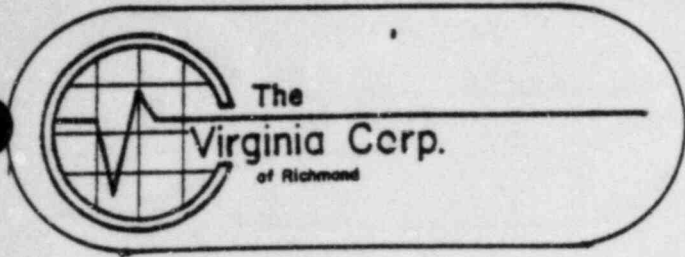


The Virginia Corp.
of Richmond

Ultrasonic Examination Report - Continuation Sheet

Customer L P & L	Plant WATERFORD	Unit 3	Loop/ Zone NA/4B	Iso/Drawing No. ZONE 4B REV 2 R4
Procedure ISI 7.2 R.D. FCC	Exam Surface O.D.	Examiner/Level Michael N. Blum II	VCR Supervisor Daniel J. Jones	Date 9-30-82
Component/Piping System MAIN + EMERGENCY FEED PIPING		Pipe Size 20"	Weld Type BUTT	Cal. Block Couplant: Type & Batch # UT-125 SOMOTRACE 40 1/4 8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
48-007	NA	YES	NO	PAR	NA	VALUE	Smooth	Ground	NI	SAT	*
48-009		NO	YES	PAR		VALUE	Smooth	Ground	NI	SAT	*
48-036		YES	NO	PAR		VALUE	Smooth	Ground	NI	SAT	*
48-037		YES	YES	YES		-	Smooth	Ground	NI	SAT	* MWB
* SEE ATTACHED SHEET											



DATE 9-30-82

PAGE 3 OF 3

TO NA

SUBJECT EXPLANATION OF
PARTIALS ON ZONE 4B

4B-007 PARTIAL 7+8 SCAN DUE TO VALVE.

4B-009 PARTIAL 7+8 SCAN DUE TO VALVE.

4B-036 PARTIAL 7+8 SCAN DUE TO VALVE.

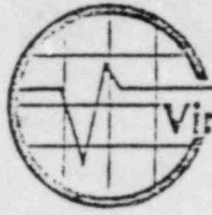
SIGNED Michael W. Blum



The
Virginia Corp.
of Richmond

Liquid Penetrant
D. Payne ANII 6/2/82
Examination Report

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>#3</i>	Loop/Zone <i>A/49</i>		
Procedure <i>ISI 3:1 Rsr 0 FL2</i>	Examiner/Level <i>David W. Clements A. I. II</i>	Date <i>May 31, 1982</i>			
Component/Piping System <i>A LPSI Pump Suction</i>	ISO Drawing No. <i>49 Rsr 2 FL 0</i>	VSR Supervisor <i>Daniel Jones</i>			
	Manufacturer	Type	Batch No.		
Penetrant	<i>Sherwin</i>	<i>Dublcheck</i>	<i>472015</i>		
Developer	<i>Sherwin</i>	<i>Dublcheck</i>	<i>129FG</i>		
Remover	<i>Sherwin</i>	<i>Dublcheck</i>	<i>112C4</i>		
Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>49-001 LA02</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-002</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-003</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-004 LA3</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-008</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-009 LA</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-009 LB</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-010</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-011</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-012 LA11</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
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<i>49-014</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-015</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-016 LA15</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



The
Virginia Corp.
of Richmond

Liquid Penetrant
D. Payne ANII 6/2/82
Examination Report

Customer LP&L	Plant WATERFORD	Unit 3	Loop Zone 49
Procedure ISI 3.1, REV.#0, F.C.-2	Examiner/Level J.B. Gilmore J Level II	Date 5-31-82	
Component/Piping System "A" LPSI PUMP SECTION	ISO Drawing No. ZONE 49, REV.#2, F.C.-1	VCR Supervisor Daniel Jones	

	Manufacturer	Type	Batch No.
Penetrant	SHERWIN	DUBLCEK DP-51	47L015
Developer	SHERWIN	DUBLCEK D-100	129F6
Remover	SHERWIN	DUBLCEK DR60	112C4

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
49-020		✓		✓	
49-021 LA22		✓		✓	
49-021 LA20		✓		✓	
49-022		✓		✓	
49-024 LA-23		✓		✓	
49-030 LA-31		✓		✓	
49-031		✓		✓	
49-034 LA-35		✓		✓	
49-035		✓		✓	
49-036 LA-37		✓		✓	
49-037		✓		✓	
49-038 LA-37		✓		✓	
49-038 LA-39		✓		✓	
49-039		✓		✓	
49-040 LA-39		✓		✓	
49-040 LA-41		✓		✓	
49-040 LB-39		✓		✓	
49-040 LB-41		✓		✓	
49-041		✓		✓	
49-042 LA-41		✓		✓	
49-042 LA-43		✓		✓	
49-043		✓		✓	



The
Virginia Corp.
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Liquid Penetrant
D. Payne ANII 6/2/82
Examination Report

Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone NA/ 49
Procedure ISI 3.1 REV-0 FC-2	Examiner/Level Robert W Anderson II	Date 5-31-82	
Component/Piping System A-LPSI PUMP SUCTION	ISO Drawing No. ZONE 49 REV-2 FC-1	VER Supervisor Daniel Jones	

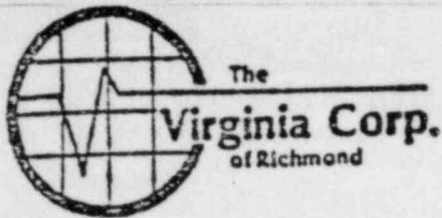
	Manufacturer	Type	Batch No.
Penetrant	SHERWIN	DUBL-CHEK	47L-015
Developer	SHERWIN	DUBL-CHEK	129-F6
Remover	SHERWIN	DUBL-CHEK	112-C4

Weid Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
49-026		✓		✓	
49-027		✓		✓	
49-028LA		✓		✓	
49-028LB		✓		✓	
49-028LC		✓		✓	
49-029		✓		✓	
49-033		✓		✓	



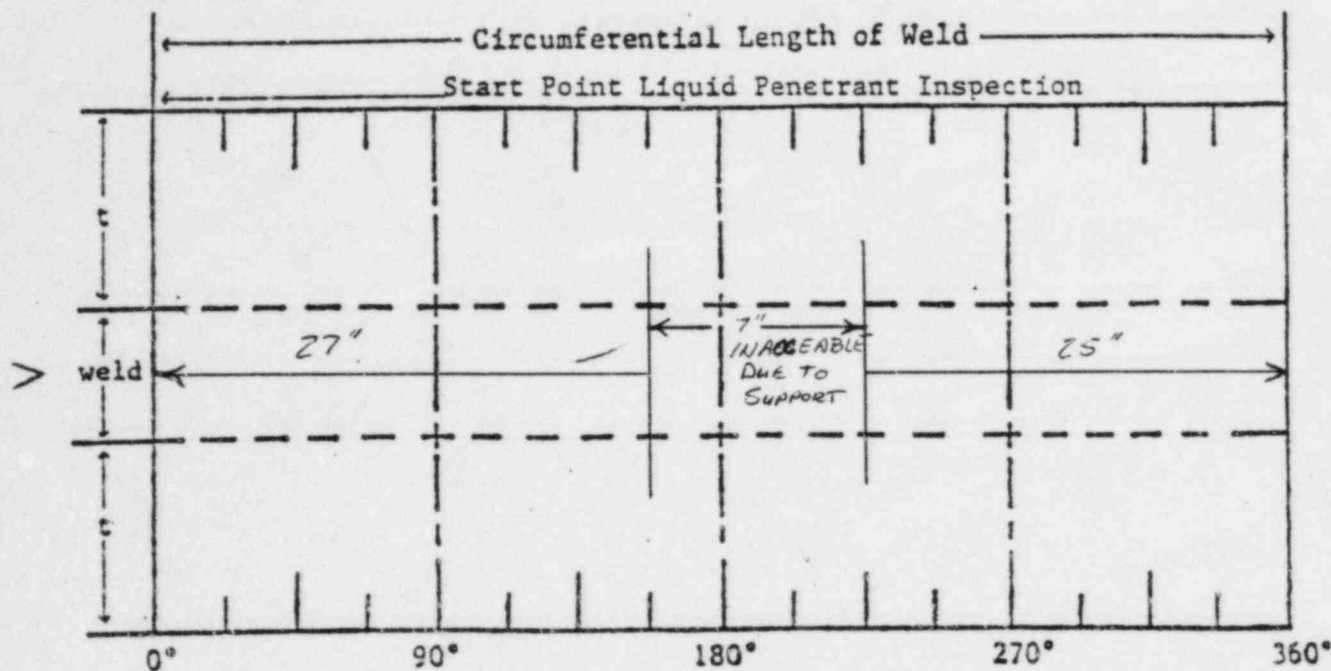
Liquid Penetrant
D. Payne ANIZ 6/3/82
Examination Report

Customer <i>LP&K</i>		Plant <i>WATERFORD</i>		Unit <i>3</i>	Loop Zone <i>49</i>	
Procedure <i>ISI 3.1, REV. #0, F.C.-2</i>		Examiner/Level <i>TB Sullivan J Level II</i>			Date <i>6/1/82</i>	
Component/Piping System <i>A-LPSI PUMP SECTION</i>		ISO Drawing No. <i>ZONE 49 REV. #2 F.C.-1</i>		VCP Supervisor <i>Donnie Jones</i>		
	Manufacturer	Type	Batch No.			
Penetrant	<i>SHERWIN</i>	<i>DUBL CHEK DP-51</i>	<i>47L 015</i>			
Developer	<i>SHERWIN</i>	<i>DUBL CHEK D-100</i>	<i>129F6</i>			
Remover	<i>SHERWIN</i>	<i>DUBL CHEK DR-60</i>	<i>112C4</i>			
Weld Number	Comments	PT Results		VT Results		
		NRI	RI	SAT.	UNSAT.	
<i>49-016 LA 20</i>		✓		✓		
<i>49-024 LA 26</i>		✓		✓		
<i>49-030 LA 29</i>		✓		✓		
<i>49-034 LA 33</i>		✓		✓		
<i>49-044 LA 43</i>		✓		✓		
<i>49-045</i>		✓		✓		
<i>49-046 LA 45</i>		✓		✓		
<i>49-046 LB 45</i>		✓		✓		
<i>49-046 LB 47</i>		✓		✓		
<i>49-047</i>		✓		✓		
<i>49-048 LA 47</i>		✓		✓		
<i>49-049</i>		✓		✓		
<i>49-050 LA 49</i>		✓		✓		
<i>49-050 LA 51</i>		✓		✓		
<i>49-051</i>		✓		✓		
<i>49-053</i>		✓		✓		
<i>49-054 LA 53</i>		✓		✓		
<i>49-054 LA 55</i>		✓		✓		
<i>49-054 LB 53</i>		✓		✓		
<i>49-054 LB 55</i>		✓		✓		
<i>49-055 PARTIAL INCOMPLETE SEE ATTACHED SHEET</i>		✓		✓		
<i>49-056 LA 55</i>		✓		✓		
<i>49-056 LA 59</i>		✓		✓		
<i>49-059</i>		✓		✓		
<i>49-060 LA 59</i>		✓		✓		
<i>49-060 LA 61</i>		✓		✓		
<i>49-060 LB 59</i>		✓		✓		
<i>49-060 LB 61</i>		✓		✓		
<i>49-061</i>		✓		✓		
<i>49-062 LA 61</i>		✓		✓		

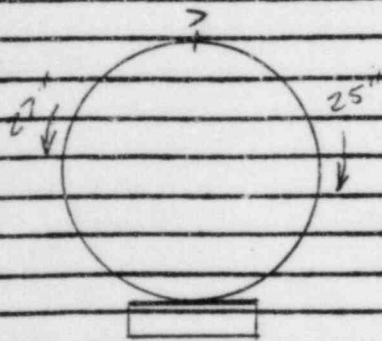


Liquid Penetrant
D. Payne ANII 6/3/82
Indication Record

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>49</i>
Procedure <i>ISI 3.1, REV #0, FC 2</i>	Examiner/Level <i>T. Williams I Level II</i>	Date <i>6-1-82</i>	
Component/Piping System <i>A-LPSI PUMP SECTION</i>		VCR Site Supervisor <i>Daniel Jones</i>	
Weld No. <i>49-055</i>	ISO/Drawing No. <i>ZONE 49-REV 2 FC-1</i>		



Remarks

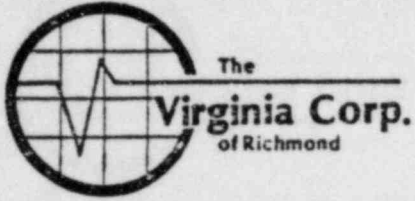




The
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Liquid Penetrant
D. Payne ANII 6/3/82
Examination Report

Customer <i>LP&L</i>		Plant <i>WATERFORD</i>		Unit <i>3</i>	Loop Zone <i>49</i>	
Procedure <i>ISI 3.1, REV.#0, F.C.-2</i>		Examiner/Level <i>T.B. Collins Level II</i>			Date <i>6/1/82</i>	
Component/Piping System <i>A-LPSI PUMP SECTION</i>		ISO Drawing No. <i>ZONE 49, REV.#2, F.C.-1</i>		VT Supervisor <i>Donald Jones</i>		
	Manufacturer	Type	Batch No.			
Penetrant	<i>SHERWIN</i>	<i>DUBLCHEK DPSI</i>	<i>47L015</i>			
Developer	<i>SHERWIN</i>	<i>DUBLCHEK D-100</i>	<i>129 FG</i>			
Remover	<i>SHERWIN</i>	<i>DUBLCHEK DE-60</i>	<i>112 C4</i>			
Weld Number	Comments	PT Results		VT Results		
		NRI	RI	SAT.	UNSAT.	
<i>49-046 LA47</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		

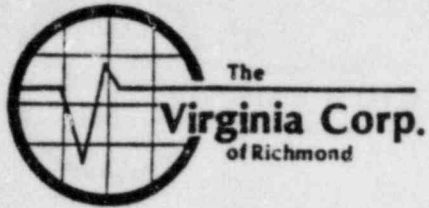


Liquid Penetrant
D. Payne ANEI 6/11/82
Examination Report

Customer LPCL	Plant Waterford	Unit 3	Loop/Zone A/49
Procedure 151-3.1, Rev D, FCZ	Examiner/Level C. [unclear] Frank II	Date 6-10-82	
Component/Piping System A-LPSI Pump Suction	ISO Drawing No. Zone 49, Rev Z, FC. 1	VOR Supervisor [Signature]	

	Manufacturer	Type	Batch No.
Penetrant	Sherwin	Dubl-check	47L-015
-Developer	Sherwin	Dubl-check	129-F6
Remover	Sherwin	Dubl-check	225-B4

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
49-009LC		✓		✓	
49-023		✓		✓	



Liquid Penetrant
D. Payne ANII 6/24/82
Examination Report

Customer LP&L		Plant Waterford		Unit 3	Loop/Zone A-49
Procedure ISI 3.1 Rev. 0 F.C. 2		Examiner/Level <i>Chas Frank II</i>			Date 6-22-82
Component/Piping System LPSI Pump Suction - A		ISO Drawing No. Zone 49 Rev. 2 F.C. 1		VCR Supervisor <i>Wendell Jensen</i>	

	Manufacturer	Type	Batch No.
Penetrant	Sherwin	Dubl-Check	47L-015
Developer	Sherwin	Dubl-Check	129-F6
Remover	Sherwin	Dubl-Check	225-B4

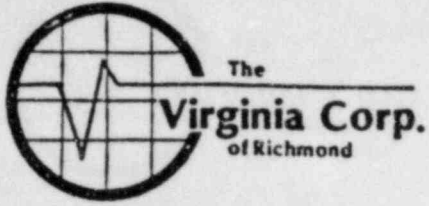
Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
49-062 LA-63		✓		✓	
49-063		✓		✓	
49-065		✓		✓	
49-066		✓		✓	
49-067		✓		✓	



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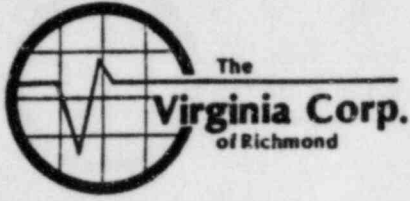
Liquid Penetrant
R. Payne ANII 7/12/82
Examination Report

Customer <i>L P & L</i>	Plant <i>Waterford</i>	Unit <i>#3</i>	Loop / Zone <i>A / 49</i>		
Procedure <i>ISI-3.1, Rev. 0, F.C. 2</i>	Examiner/Level <i>Chris E. Forrad II</i>		Date <i>7-9-82</i>		
Component/Piping System <i>LPSI Pump Suction</i>	ISO Drawing No. <i>Zone 49, Rev. 2, F.C. 2</i>	VGR Supervisor <i>Manuel Jones</i>			
	Manufacturer	Type	Batch No.		
Penetrant	<i>Sherwin Inc.</i>	<i>Dubl - Chek</i>	<i>47L-015</i>		
Developer	<i>Sherwin Inc.</i>	<i>Dubl - Chek</i>	<i>129 F6</i>		
Remover	<i>Sherwin Inc.</i>	<i>Dubl - Chek</i>	<i>225 B4</i>		
Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>49-006</i>		✓		✓	
<i>49-004LA-6</i>		✓		✓	
<i>WS-2-1</i>		✓		✓	
<i>WS-2-2</i>		✓		✓	
<i>WS-2-3</i>		✓		✓	
<i>WS-2-4</i>		✓		✓	
<i>WS-2-5</i>		✓		✓	
<i>WS-2-6</i>		✓		✓	
<i>WS-2-7</i>		✓		✓	
<i>WS-2-8</i>		✓		✓	



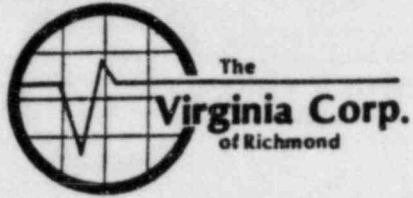
Liquid Penetrant
D. Payne ANII 7/12/82
Examination Report

Customer <i>L P & L</i>		Plant <i>Waterford</i>		Unit <i>3</i>		Loop/Zone <i>A/49</i>	
Procedure <i>ISF 3.1 Rev. 0, F.C. 2</i>		Examiner/Level <i>Chris E. Foyall II</i>				Date <i>7-10-82</i>	
Component/Piping System <i>LPSI Pump Suction</i>		ISO Drawing No. <i>Zone 49, Rev. 0, F.C. 2</i>		VCR Supervisor <i>N. [Signature]</i>			
Manufacturer		Type		Batch No.			
Penetrant		<i>Sherwin Ex. Dabl-check</i>		<i>47L 015</i>			
Developer		<i>Sherwin Ex. Dabl-check</i>		<i>129 F6</i>			
Remover		<i>Sherwin Inc. Dabl-check</i>		<i>225 BH</i>			
Weld Number	Comments	PT Results		VT Results			
		NRI	RI	SAT.	UNSAT.		
<i>49-036LA-39</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			



Liquid Penetrant
D. Payne ANII 7/14/82
Examination Report

Customer <i>LPSL</i>	Plant <i>Waterford</i>	Unit <i>III</i>	Loop/Zone <i>A/49R2FC2</i>		
Procedure <i>ISI 3.1 RsrO FC2</i>	Examiner/Level <i>David W. Clemente Jr Lr 11</i>	Date <i>July 12, 1982</i>			
Component/Piping System <i>Loop A LPSJ Dump suction</i>	ISO Drawing No. <i>ZONE 49 Rsr2 FC2</i>	VCR Supervisor <i>Nerid Jones</i>			
	Manufacturer	Type	Batch No.		
Penetrant	<i>Sherwin</i>	<i>Dublecheck</i>	<i>472015</i>		
Developer	<i>Sherwin</i>	<i>Dublecheck</i>	<i>129F6</i>		
Remover	<i>Sherwin</i>	<i>Dublecheck</i>	<i>225B4</i>		
Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>49-036-LA35</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-048-LA49</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

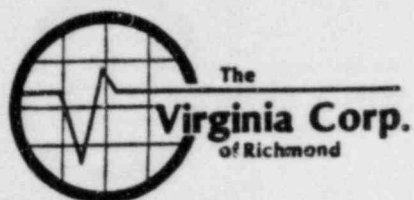


Liquid Penetrant
D. Payne ANIZ ^{7/19/82}
Examination Report

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>A/49</i>
Procedure <i>ISI 3, I.R.O., F.C.3</i>	Examiner/Level <i>Chris E. Forpall II</i>	Date <i>7-17-82</i>	
Component/Piping System <i>LPSI Pump Suction</i>	ISO Drawing No. <i>Zone 49, A.2, F.C.2</i>	VER Supervisor <i>Daniel Lyons</i>	

	Manufacturer	Type	Batch No.	
Penetrant	<i>Sherwin Inc</i>	<i>Dubl-chek</i>	<i>472-015</i>	
Developer	<i>Sherwin Inc</i>	<i>Dubl-chek</i>	<i>129 F6</i>	
Remover	<i>Sherwin Inc</i>	<i>Dubl-chek</i>	<i>225 B4</i>	

Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>49-044LA-45</i>		✓		✓	



M.R. Martin, ANII 12-17-82
Liquid Penetrant

Examination Report

Customer <i>LP&I</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>N/A 49</i>
Procedure <i>ISI-3.1 REV. 0 F.C. 4</i>	Examiner/Level <i>Franklin P. Brown Lv II</i>	Date <i>12-10-82</i>	
Component/Piping System <i>A-LPSI PUMP SUCTION</i>	ISO Drawing No. <i>ZONE 49 REV. 2 F.C. 7</i>	VCR Supervisor <i>Kevin White</i>	

	Manufacturer	Type	Batch No.	
Penetrant	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>47L015</i>	
Developer	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>129F6</i>	
Remover	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>225B4</i>	

Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>49-071</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-072</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



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M.R. Martin, ANIF 7-11-83
Liquid Penetrant

Examination Report

Customer <i>LP+L</i>		Plant <i>Waterford</i>	Unit <i>3</i>	Loop / Zone <i>1 / 49</i>	
Procedure <i>151-3.1, R1</i>		Examiner/Level <i>Kevin White II / Richard A. Humphrey II</i>		Date <i>7-9-83</i>	
Component/Piping System <i>A-LPSI Pump Suction</i>		ISO Drawing No. <i>Zone 49, R.5, FC.1</i>		VCR Supervisor <i>Daniel Jensen</i>	
	Manufacturer	Type	Batch No.		
Penetrant	<i>Sherwin</i>	<i>DP-51</i>	<i>214E47</i>		
Developer	<i>Sherwin</i>	<i>D-100</i>	<i>230K6</i>		
Remover	<i>Sherwin</i>	<i>DR-60</i>	<i>228L4</i>		
Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>49-074</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-075LA-074</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-075LA-076</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-076</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-077LA-076</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-077LA-078</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>49-078</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



W.R. Martin, ANIF 11-3-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA / 49</i>
Component/Piping System <i>A- LPS1 Pump Suction</i>		Examiner/Level <i>Dary A. Laffus II</i>	Date <i>10-23-82</i>
Procedure <i>ISI-2.5 R.O FC-1</i>	Iso/Drawing No. <i>Zone 49 R.2 FC-7</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached [] Yes [X] No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>Sonic</i>	Mfgr. <i>Panometrics</i>	Size <i>.25"</i>	Cal. Block <i>UT-120</i>	
Model <i>Mark I</i>			Cal. Block	
S/N <i>03704E</i>	Freq. <i>5 MHz</i>	Range Cal. <i>.600"</i>		Calibration Checks
Reject <i>OFF</i>	Serial No. <i>44650</i>	IN: <i>12:45</i>		
Damp. <i>6</i>	Coax. Cable <i>6' BNC-PC</i>	OUT: <i>3:40</i>		
Freq. <i>5 MHz</i>	Gain <i>62 DB</i>			
Rep. Rate <i>3K</i>				
Filter <i>OFF</i>				
Video <i>DIFF</i>				
Couplant <i>Sonotrace 40 SN: 8124</i>				

E. amination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>49-014</i>	<i>12</i>	<i>.498"</i>	<i>.474"</i>	<i>.372"</i>	<i>49-020</i>	<i>12</i>	<i>.414"</i>	<i>.540"</i>	<i>.372"</i>
	<i>2</i>	<i>.480"</i>	<i>.498"</i>	<i>.372"</i>		<i>2</i>	<i>.408"</i>	<i>.498"</i>	<i>.384"</i>
	<i>4</i>	<i>.480"</i>	<i>.474"</i>	<i>.366"</i>		<i>4</i>	<i>.420"</i>	<i>.462"</i>	<i>.372"</i>
	<i>6</i>	<i>.480"</i>	<i>.540"</i>	<i>.372"</i>		<i>6</i>	<i>.420"</i>	<i>.486"</i>	<i>.372"</i>
	<i>8</i>	<i>.480"</i>	<i>.480"</i>	<i>.372"</i>		<i>8</i>	<i>.426"</i>	<i>.468"</i>	<i>.378"</i>
<i>49-015</i>	<i>10</i>	<i>.444"</i>	<i>.474"</i>	<i>.366"</i>	<i>10</i>	<i>.444"</i>	<i>.504"</i>	<i>.372"</i>	
	<i>2</i>	<i>.528"</i>	<i>.384"</i>	<i>.546"</i>					
	<i>4</i>	<i>.492"</i>	<i>.360"</i>	<i>.492"</i>					
	<i>6</i>	<i>.492"</i>	<i>.372"</i>	<i>.492"</i>					
	<i>8</i>	<i>.480"</i>	<i>.372"</i>	<i>.480"</i>					
<i>10</i>	<i>.474"</i>	<i>.378"</i>	<i>.504"</i>						

Sketch/Identification

W.R. Martin, ANII 11-3-82

Ultrasonic Examination Report



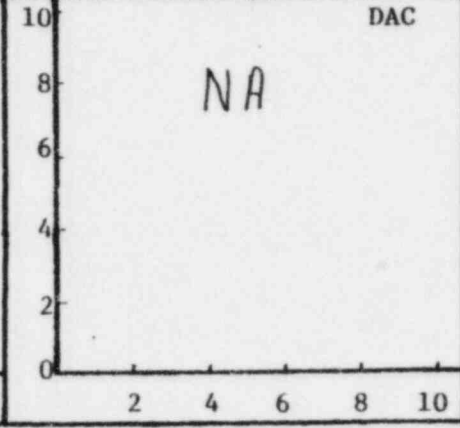
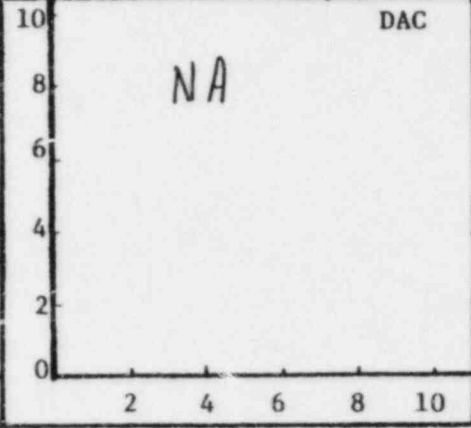
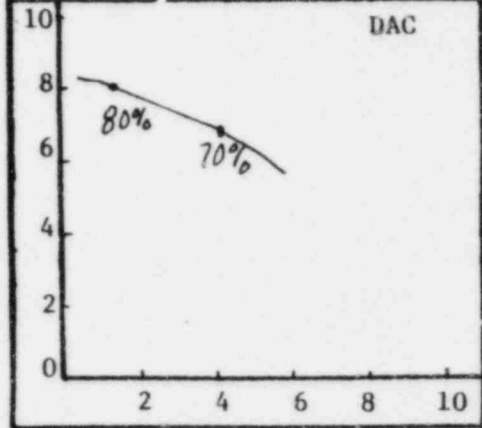
Customer <i>LP-1</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/49</i>	Iso/Drawing No. <i>Zone 49 R.2 FC-7</i>
Procedure <i>ISI-2.7 R.O FC-4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Mary A. Lofthouse #</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-23-82</i>
Component/Piping System <i>A-LPSI Pump Suction</i>	Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-120</i>	Couplant: Type <i>Son</i> 40 Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *FC-4*

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	44650	NA	NA	Mfer.	<i>Sonic</i>	Model	<i>Mark I</i>
	.25"			S/N	<i>03704E</i>	RepRate	<i>3K</i>
	5MHz			Reject	<i>OFF</i>	Filter	<i>OFF</i>
	0°			Damp	<i>6</i>	Coax	<i>6'BNC-PC</i>
			Freq.	<i>5MHz</i>	Videa	<i>Diff</i>	

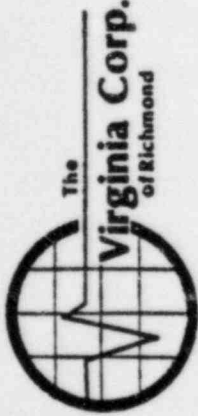
Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1/4 T</i>	<i>80%</i>	<i>1.4</i>	<i>NA</i>	<i>NA</i>			<i>NA</i>	<i>NA</i>			<i>12:45</i>	<i>3:40</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4 T</i>	<i>70%</i>	<i>4.1</i>														
<i>T</i>	<i>NA</i>	<i>6.0</i>														



Additional Comments/Sketch

W.R. Martin, ANII 11-3-82

Ultrasonic Examination Report - Continuation Sheet Page of



Customer
LRK
Procedure
151-2.7 R.F.C.-4
Component/Piping System
A-LPSL Pump Suction

Plant
Waterford
Exam Surface
O.D.

Unit
3
Examiner/Level
W.R. Martin, ANII
Pipe Size
14"

Loop/ Zone
NA/ 49
VCR Supervisor
Danial Jensen
Date
10-23-82

Iso/Drawing No.
Zone 49 R.2 EC.7
Cal. Block
Coplant: Type & Batch #
UT-20
Sonotrace 40 SN: 8124

Table with columns: Weld No., Base Metal Scan, Scan Direction (2, 5, 7 & 8), Inspection Limitations, Surface Condition (Base Metal, Weld), Examination Results (UT, Visual), Remarks. Includes handwritten data for welds 49-014, 49-015, 49-020 and a note: '* Approx. 10% of weld not covered due to weld crown'.

W.R. Martin, ANII 11-3-82

Ultrasonic Examination Report



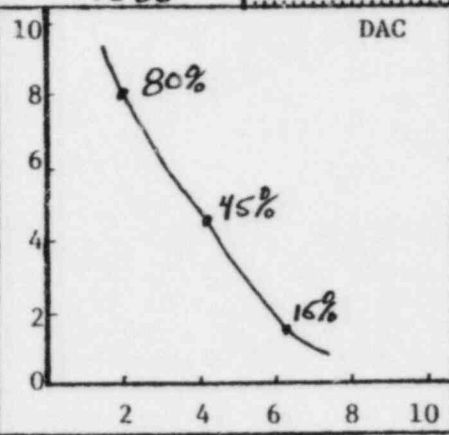
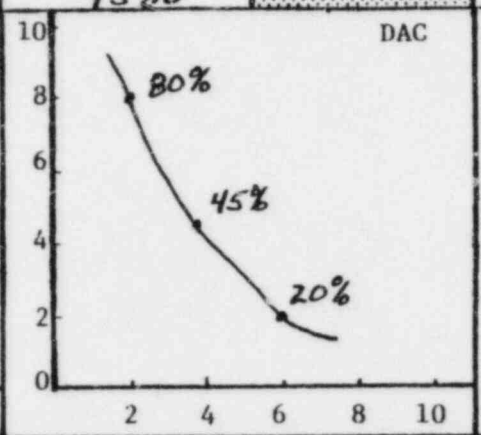
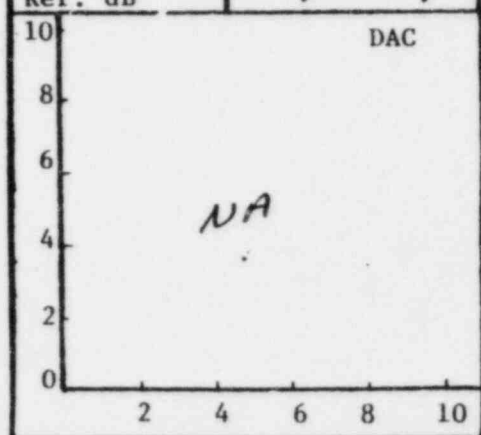
Customer <i>L P & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>A/49</i>	Iso/Drawing No. <i>ZONE 49 REV 2 FC. 7</i>
Procedure <i>ISI-2.7 R.O FC. 4</i>	Exam Surface <i>O. D.</i>	Examiner/Level <i>Michael W. Blaw II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-23-82</i>
Component/Piping System <i>A-LPSI PUMP SUCTION</i>	Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-120</i>	Couplant: <i>SONOTRACE</i> Type <i>40</i> Batch No <i>B124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *4*

Transducer	0°	45°	60°	Instrument			
	S/N <i>NA</i>	<i>H2514B</i>	<i>NA</i>	Mfr. <i>SONIC</i>	Model <i>MARK I</i>	RepRate <i>3K</i>	Filter <i>OFF</i>
	Size <i>.25" DIA</i>	<i>2.25 MHz</i>		S/N <i>02307E</i>	Coax <i>6 BNC-MP</i>	Batch No <i>B124</i>	
	Frequency <i>45°</i>			Reject <i>OFF</i>	Damp <i>MIN.</i>	Video <i>NORM</i>	
Beam Angle				Freq. <i>2.0</i>			

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks									
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
	<i>NA</i>	<i>NA</i>			<i>NA</i>	<i>NA</i>	<i>NA</i>			<i>NA</i>	<i>NA</i>	<i>NA</i>						
<i>1T</i>			<i>80%</i>	<i>2.0</i>				<i>80%</i>	<i>2.0</i>									
<i>2T</i>			<i>45%</i>	<i>3.8</i>				<i>45%</i>	<i>4.2</i>									
<i>3T</i>			<i>20%</i>	<i>6.0</i>				<i>15%</i>	<i>6.2</i>									
Ref. dB			<i>45db</i>					<i>43db</i>										



Additional Comments/Sketch

M.R. Martin, ANIF 11-3-82



The
Virginia Corp.
of Richmond

Ultrasonic Examination Report - Continuation Sheet

Page 2 of 2

Customer <i>L P & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>A/49</i>	Iso/Drawing No. <i>ZONE 49 REV 2 FC. 7</i>
Procedure <i>ISI-2.7 R.O FC. 4</i>	Exam Surface <i>D. D.</i>	Examiner/Level <i>Michael W. Blew II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-23-82</i>
Component/Piping System <i>A- LPSI PUMP SUCTION</i>	Pipe Size <i>14"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-120</i>	Couplant: Type & Batch # <i>SQUATRACE 407-8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>49-014</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>	<i>CLEAN</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>		
<i>49-015</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>	<i>CLEAN</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>		
<i>49-020</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>	<i>CLEAN</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>		



W.R. Martin, ANIF 11-3-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA 149</i>
Component/Piping System <i>A - LPSI Pump Suction</i>	Examiner/Level <i>Darryl P. Roberts II</i>	Date <i>10-26-82</i>	
Procedure <i>ISI-2.5 R.O. FC-1</i>	Iso/Drawing No. <i>Zone 49 R.2 FC-7</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>Sonic</i>	Mfgr. <i>Panometrics</i>	Size <i>.25"</i>	Cal. Block <i>UT-122</i>	
Model <i>Mark I</i>	Freq. <i>5 MHz</i>		Cal. Block	
S/N <i>03704E</i>	Serial No. <i>44650</i>		Range Cal. <i>.764"</i>	
Reject <i>OFF</i>	Coax. Cable <i>6' BNC-PC</i>		Calibration Checks	
Damp. <i>6</i>	Gain <i>57 DB</i>		IN: <i>9:35</i>	
Freq. <i>5 MHz</i>			OUT: <i>10:30</i>	
Rep. Rate <i>3K</i>				
Filter <i>OFF</i>				
Video <i>Diff</i>				
Couplant <i>Sonotrace 40 SN: 8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>49-055</i>	<i>12</i>	<i>.466"</i>	<i>.359"</i>	<i>.573"</i>	<i>/</i>				
	<i>2</i>	<i>.481"</i>	<i>.351"</i>	<i>.604"</i>					
	<i>4</i>	<i>.504"</i>	<i>.359"</i>	<i>.596"</i>					
	<i>6</i>	<i>.535"</i>	<i>.359"</i>	<i>.550"</i>					
	<i>8</i>	<i>.542"</i>	<i>.367"</i>	<i>.596"</i>					
	<i>10</i>	<i>.504"</i>	<i>.359"</i>	<i>.60"</i>					

Sketch/Identification

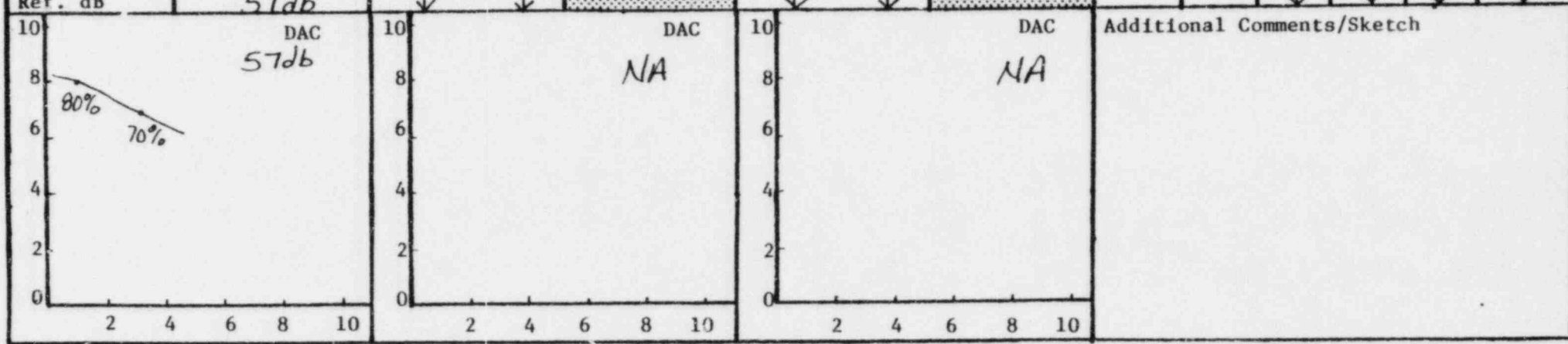


Ultrasonic Examination Report

Customer <i>LP&L</i>	Plant <i>WATERBORD</i>	Unit <i>3</i>	Loop/Zone <i>NA/49</i>	Iso/Drawing No. <i>ZONE 49 REV-2, F.C. 7</i>
Procedure <i>ISI 2.7 REV-0FC4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>May A. Hoffman II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-26-82</i>
Component/Piping System <i>A-LPST PUMP SUCTION</i>	Pipe Size <i>18"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-122</i>	Couplant: <i>SONOTRACE</i> Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transducer	0°	45°	60°	Instrument			
	S/N	44650	NA	NA	Mfr.	Sonic	Model	MARK I
	Size	.25"			S/N	3704E	RepRate	3K
	Frequency	5.0MHz			Reject	OFF	Filter	OFF
Field Changes: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, Number <i>4</i>	Beam Angle	0°	↓	↓	Damp	6	Coax	6'BNC-PC
	Calibration	0°	2 & 5 Scan		7 & 8 Scan		Freq.	5.0MHz
						Video	DIFF	

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks						
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°		
											In	Out	In	Out	In	Out	
<i>1/4 T</i>	<i>80%</i>	<i>1.0</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>		<i>NA</i>	<i>NA</i>	<i>NA</i>								
<i>3/4 T</i>	<i>70%</i>	<i>3.0</i>															
<i>1 T</i>	<i>NA</i>	<i>5.0</i>															



W. R. Martin, A I I 11-3-82

Ultrasonic Examination Report - Continuation Sheet Page 1 of 7



Customer: LP+L
 Plant: Waterford
 Loop/Zone: NA/49
 Unit: 3
 Iso/Drawing No.: Zone 49 R.2 FC.7
 Procedure: 151-3.7 RD.EC-4 O.P.
 Examiner/Level: Gary A. Lofgren II
 VCR Supervisor: Dennis J. Dennis
 Date: 10-26-82
 Component/Piping System: A-LPSI Pump Suction
 Pipe Size: 18"
 Weld Type: BxH
 Cal. Block Couplant: Type & Batch # 4T-122 Somatrace 40 SN: 8124

Weld No.	Base Metal Scan	Scan Direction			Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8		Base Metal	Weld	UT	Visual	
49055	Yes	NH	NA	NA	Yes	Smooth	Ground	NI	Sat	



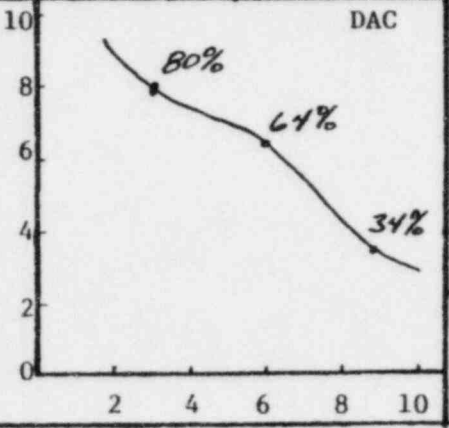
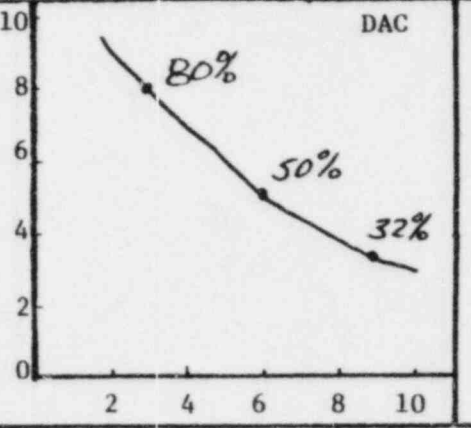
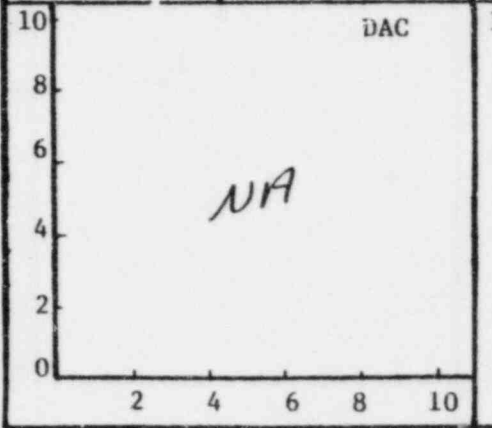
Ultrasonic Examination Report

Customer L P & L		Plant WATERFORD	Unit 3	Loop/Zone A/49	Iso/Drawing No. ZONE 49 REV 2 FC 7
Procedure ISI-2.7 R.O. FC. 4		Exam Surface D.D.	Examiner/Level Michael V Blum II		VCR Supervisor Daniel Jensen
Component/Piping System A- LPSI PUMP SUCTION		Pipe Size 18"	Weld Type BUTT	Cal. Block UT-122	Date 10-26-82
Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Instrument		

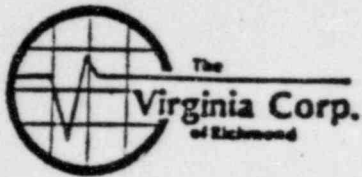
Transducer	0°	45°	60°	Mfer.	SONIC	Model	MARK I
S/N	NA	H2514B	NA	S/N	02307E	RepRate	3K
Size		.25" DA		Reject	OFF	Filter	OFF
Frequency		2.25 MHz		Damp	MIN	Coax	6 BNC-MO
Beam Angle		45°		Freq.	2.0	Video	NORM

Field Changes:
 Yes No
 If Yes, Number 4

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks							
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	0°		45°		60°		
					Scribe Line	50% DAC				In	Out	In	Out	In	Out	
1T	NA	NA	80%	3.0	NA	NA	NA	80%	3.0			9:00	10:25	NA	NA	
2T			50%	6.0				64%	6.0			12:45	3:05			
3T			32%	9.0				34%	9.0							
Ref. dB			43 db			46 db										



Additional Comments/Sketch



M.R. Martin, ANIT 11-3-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer <i>L P & L</i>	Plant <i>Waterford</i>	Unit # <i>3</i>	Loop/Zone <i>A 1 49</i>
Component/Piping System <i>A-LPSI Pump Section</i>		Examiner/Level <i>Michael W. Blaw II</i>	Date <i>10-29-82</i>
Procedure <i>ISI-2.5 Rev. D FC 1</i>	Iso/Drawing No. <i>Zone 49 Rev. 2 FCT</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached [] Yes [X] No

Equipment

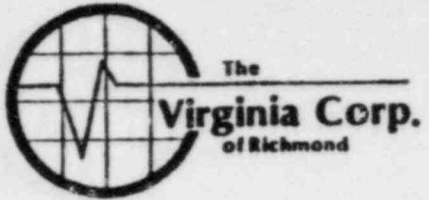
Instrument		Transducer		Calibration
Mfgr. <i>SONIC</i>	Mfgr. <i>PARAMETRICS</i>	Size <i>.25" DIA</i>	Cal. Block <i>UT-123</i>	
Model <i>MARK I</i>			Cal. Block	
S/N <i>02307 E</i>	Freq. <i>5.0 MHz</i>		Range Cal. <i>.770"</i>	
Reject <i>off</i>			Calibration Checks	
Damp. <i>6</i>	Serial No. <i>44650</i>		<i>IN 7:55</i>	
Freq. <i>5.0</i>				
Rep. Rate <i>3K</i>	Coax. Cable <i>6' BNC To PC</i>		<i>OUT 11:05</i>	
Filter <i>off</i>				
Video <i>off</i>	Gain <i>60 db</i>			
Couplant <i>SONTRAC 40 Batch # 8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>49-029</i>	<i>12</i>	<i>.446"</i>	<i>.370"</i>	<i>.554"</i>	<i>49-039</i>	<i>12</i>	<i>.585"</i>	<i>.631"</i>	<i>.385"</i>
	<i>2</i>	<i>.447"</i>	<i>.377"</i>	<i>.600"</i>		<i>2</i>	<i>.477"</i>	<i>.623"</i>	<i>.385"</i>
	<i>4</i>	<i>.500"</i>	<i>.385"</i>	<i>.554"</i>		<i>4</i>	<i>.462"</i>	<i>.600"</i>	<i>.385"</i>
	<i>6</i>	<i>.539"</i>	<i>.377"</i>	<i>.539"</i>		<i>6</i>	<i>.646"</i>	<i>.631"</i>	<i>.385"</i>
	<i>8</i>	<i>.477"</i>	<i>.370"</i>	<i>.539"</i>		<i>8</i>	<i>.477"</i>	<i>.639"</i>	<i>.370"</i>
	<i>10</i>	<i>.485"</i>	<i>.370"</i>	<i>.616"</i>		<i>10</i>	<i>.446"</i>	<i>.631"</i>	<i>.385"</i>
<i>49-033</i>	<i>12</i>	<i>.539"</i>	<i>.385"</i>	<i>.708"</i>	<i>49-041</i>	<i>12</i>	<i>.508"</i>	<i>.385"</i>	<i>.716"</i>
	<i>2</i>	<i>.462"</i>	<i>.370"</i>	<i>.616"</i>		<i>2</i>	<i>.523"</i>	<i>.370"</i>	<i>.646"</i>
	<i>4</i>	<i>.500"</i>	<i>.362"</i>	<i>.616"</i>		<i>4</i>	<i>.523"</i>	<i>.385"</i>	<i>.639"</i>
	<i>6</i>	<i>.492"</i>	<i>.370"</i>	<i>.616"</i>		<i>6</i>	<i>.539"</i>	<i>.392"</i>	<i>.616"</i>
	<i>8</i>	<i>.523"</i>	<i>.377"</i>	<i>.616"</i>		<i>8</i>	<i>.539"</i>	<i>.385"</i>	<i>.639"</i>
	<i>10</i>	<i>.508"</i>	<i>.377"</i>	<i>.631"</i>		<i>10</i>	<i>.400"</i>	<i>.385"</i>	<i>.631"</i>

Sketch/Identification

W.R. Martin, ANII 11-3-82



Ultrasonic Examination Report

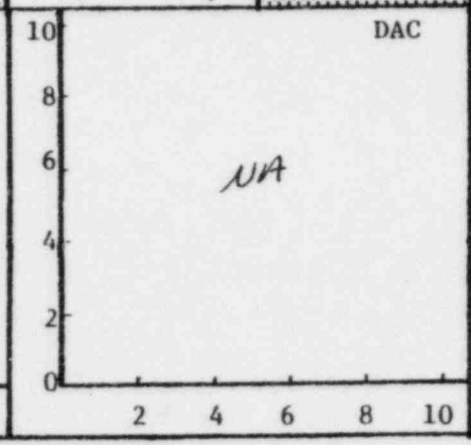
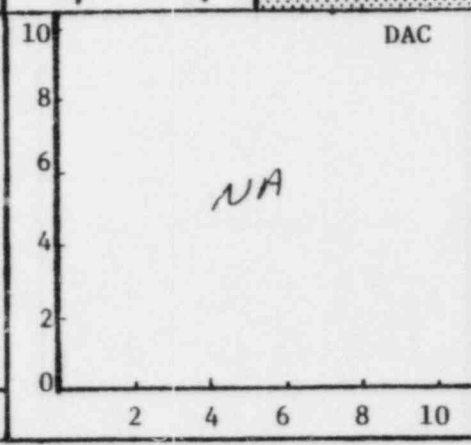
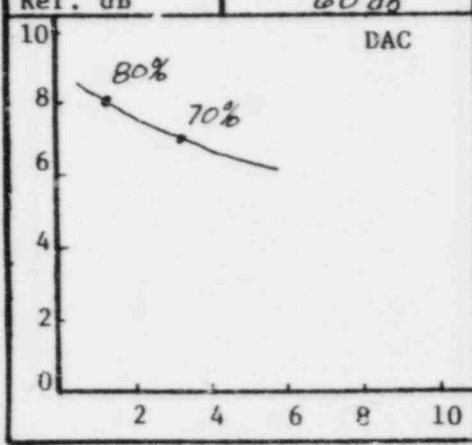
Customer <i>L P & L</i>		Plant <i>WATERFORD</i>		Unit <i>3</i>	Loop/Zone <i>A/49</i>	Iso/Drawing No. <i>ZONE 49 REV 2 FC 7</i>	
Procedure <i>ISI-2.7 R.O.F.C. 4</i>		Exam Surface <i>O.D.</i>	Examiner/Level <i>Michael W. Blow II</i>		VCR Supervisor <i>Daniel Jensen</i>		Date <i>10-29-82</i>
Component/Piping System <i>A-LPST PUMP SUCTION</i>			Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block # <i>UT-123</i>	Couplant: <i>SONOTRACE</i> Type <i>40</i> Batch No <i>8124</i>	

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *4*

	Transducer			Instrument		
	S/N	<i>44650</i>	<i>NA</i>	Mfr.	<i>SONIC</i>	Model <i>MARK I</i>
	Size	<i>25" DIA</i>		S/N	<i>02307E</i>	RepRate <i>3K</i>
	Frequency	<i>5.0MHz</i>		Reject	<i>OFF</i>	Filter <i>OFF</i>
	Beam Angle	<i>0°</i>		Damp	<i>6</i>	Coax <i>6'BNC-PC</i>

Calibration 0°			2 & 5 Scan					7 & 8 Scan					Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°		
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out	
<i>1/4 T</i>	<i>80%</i>	<i>1.2</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>7:55</i>	<i>11:05</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4 T</i>	<i>70%</i>	<i>3.2</i>																	
<i>1 T</i>		<i>5.0</i>																	
Ref. dB	<i>60 db</i>																		



Additional Comments/Sketch

W.R. Martin, ANII 11-3-82



Ultrasonic Examination Report - Continuation Sheet

Page of

Customer L P & L	Plant WATERFORD	Unit 3	Loop/ Zone A1 49	Iso/Drawing No. ZONE 49 REV2 FC.7
Procedure ISI-2.7 R.O. K.4	Exam Surface O. D.	Examiner/Level Michael W. Blew II	VCR Supervisor Daniel Jensen	Date 10-29-82
Component/Piping System A-LPSI PUMP SUCTION	Pipe Size 20"	Weld Type BUTT	Cal. Block UT-123	Couplant: Type & Batch # SONOTRACE 4040 B124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
49-029	YES	NA	NA	NA	PAR	PARTIAL DUE TO WELD CROWN APPROX. 10% NOT COVERED DUE TO LOSS OF CONTACT AT TOE OF WELD	CLEAN	Ground	NI	SAT	
49-033	YES	NA	NA	NA	YES	—	CLEAN	Ground	NI	SAT	
49-039	YES	NA	NA	NA	PAR	PARTIAL DUE TO WELD CROWN APPROX. 5% NOT COVERED DUE TO LOSS OF CONTACT AT TOE OF WELD	CLEAN	Ground	NI	SAT	
49-041	YES	NA	NA	NA	PAR	PARTIAL DUE TO WELD BEVEL APPROX 10% NOT COVERED DUE TO LOSS OF CONTACT AT TOE OF WELD	CLEAN	Ground	NI	SAT	



Ultrasonic Examination Report

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA 49</i>	Iso/Drawing No. <i>Zone 49 R.2 EC.7</i>
Procedure <i>ISI-27 R.O.F.C-4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>James A. Roberts II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-29-82</i>
Component/Piping System <i>LPSI Pump Suction</i>	Pipe/Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-123</i>	Couplant: Type <i>Sona 40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
Yes No

Field Changes:
Yes No
If Yes, Number *4*

Transducer	Instrument		
	0°	45°	60°
S/N	<i>NA</i>	<i>H2514A</i>	<i>NA</i>
Size		<i>2.25"</i>	
Frequency		<i>2.25MHz</i>	
Beam Angle		<i>45°</i>	
Mfr.	<i>Sonic</i>	Model	Mark I
S/N	<i>03704E</i>	RepRate	<i>3K</i>
Reject	<i>off</i>	Filter	<i>off</i>
Damp	<i>Min</i>	Coax	<i>6' BNC-MD</i>
Freq.	<i>2 MHz</i>	Video	<i>Norm</i>

Calibration *0°*

2 & 5 Scan

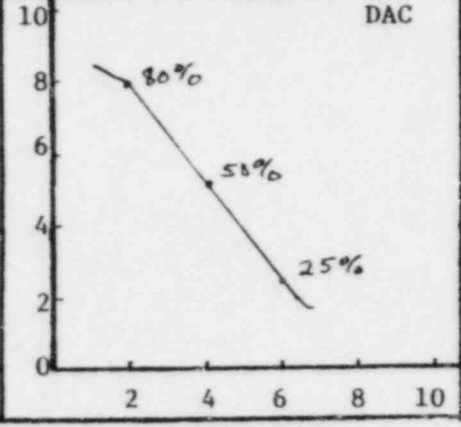
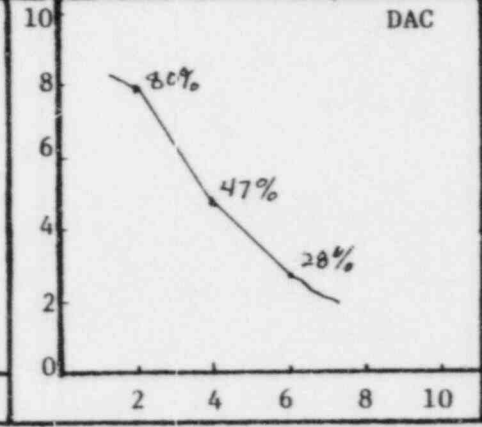
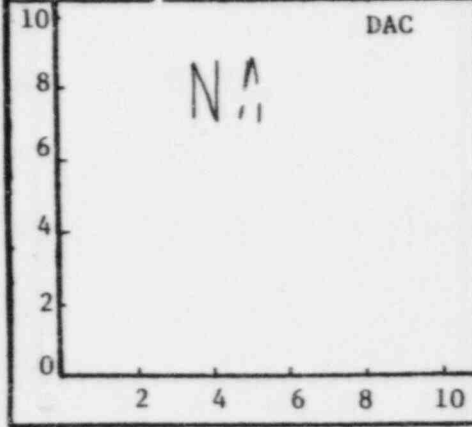
7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks					
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°	
											In	Out	In	Out	In	Out
<i>1T</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>2.0</i>			<i>80%</i>	<i>2.0</i>			<i>NA</i>	<i>NA</i>	<i>9:20</i>	<i>12:45</i>	<i>NA</i>	<i>NA</i>
<i>2T</i>			<i>47%</i>	<i>4.0</i>			<i>50%</i>	<i>4.0</i>					<i>1:05</i>	<i>3:07</i>		
<i>3T</i>			<i>28%</i>	<i>6.0</i>			<i>25%</i>	<i>6.0</i>								

Ref. dB

45 DB

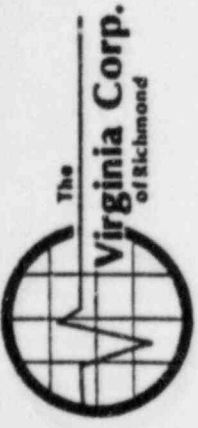
47 DB



Additional Comments/Sketch

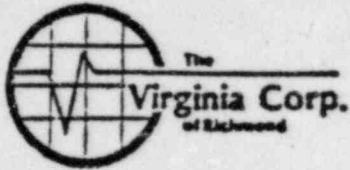
M.R. Martin, ANII 11/3/82

Ultrasonic Examination Report - Continuation Sheet Page of



Customer <i>L P & L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/ Zone <i>NA 49</i>	Iso/Drawing No. <i>R-2 FC-7</i>
Procedure <i>ISI-2.7 R.O.F.C.4</i>	Exam Surface <i>O.P.</i>	Examiner/Level <i>Henry D. Stephens II</i>	VCR Supervisor <i>Donnie J. Gena</i>	Date <i>10-29-82</i>
Component/Piping System <i>LPSI Pump Suction</i>	Pipe Size <i>20"</i>	Weld Type <i>Butt</i>	Cal. Block Couplant: Type & Batch # <i>LIT-123 Soudalace 40 SN: 824</i>	

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
49-029	NA	Yes	Yes	Yes	NA	Smooth	Ground	NI	Sat		
49-033	NA	Yes	Yes	Yes	NA	Smooth	Ground	NI	Sat		
49-039	NA	Yes	Yes	Yes	NA	Smooth	Ground	NI	Sat		
49-041	NA	Yes	Yes	Yes	NA	Smooth	Ground	NI	Sat		



M.R. Martin, ANII 1/11/83
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LPXL</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/49</i>
Component/Piping System <i>A. LPSI Pump Suction</i>	Examiner/Level <i>David Z. Folan II</i>	Date <i>12/21/82</i>	
Procedure <i>ISI 2.5 R.O.F.C.1</i>	Iso/Drawing No. <i>Zone 49 R.2 F.C.7</i>	VCR Supervisor <i>David Z. Folan</i>	Continuation Sheet Attached [] Yes [<input checked="" type="checkbox"/>] No

Equipment

Instrument		Transducer		Calibration
Mfrg. <i>Sonic</i>	Mfrg. <i>B-Aerotech</i>	Size <i>.25"</i>	Cal. Block <i>UT-122</i>	
Model <i>Mark I</i>			Cal. Block <i>NA</i>	
S/N <i>05304E</i>	Freq. <i>5.0 MHz</i>		Range Cal. <i>.382 at 60 div</i>	
Reject <i>OFF</i>			Calibration Checks	
Damp. <i>Min</i>	Serial No. <i>JD5017</i>		Initial <i>13:13</i>	
Freq. <i>5.0 MHz</i>	Coax. Cable <i>6' BNC</i>		Final <i>13:45</i>	
Rep. Rate <i>1K</i>				
Filter <i>OFF</i>	Gain <i>75 dB</i>			
Video <i>Norm</i>				
Couplant <i>Sonatrace 40" 8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>49059</i>	<i>12</i>	<i>.42"</i>	<i>.56"</i>	<i>.36"</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
	<i>2</i>	<i>.46"</i>	<i>.62"</i>	<i>.36"</i>					
	<i>4</i>	<i>.50"</i>	<i>.60"</i>	<i>.36"</i>					
	<i>6</i>	<i>.40"</i>	<i>.56"</i>	<i>.36"</i>					
	<i>8</i>	<i>.46"</i>	<i>.59"</i>	<i>.37"</i>					
	<i>10</i>	<i>.46"</i>	<i>.59"</i>	<i>.36"</i>					

Sketch/Identification

M.R. Martin, ANIS 1-11-83



Ultrasonic Examination Report

Customer L P & L	Plant Waterford	Unit 3	Loop/Zone NA/49	Iso/Drawing No. Zone 49 R. 2 F. C. 7
Procedure 151-2.7 R. OFC 4	Exam Surface 00	Examiner/Level David L. Fokan II	VCR-Supervisor David L. Fokan	Date 12/21/82
Component/Piping System A-LPSI Pump Section	Pipe Size 18"	Weld Type Butt	Cal. Block # UT-122	Couplant: Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

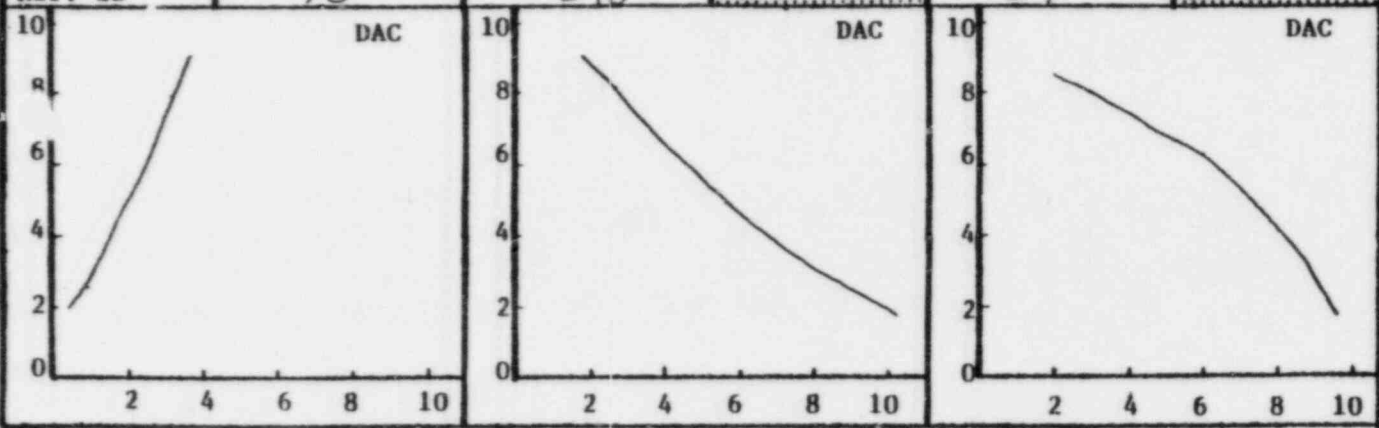
Field Changes:
 Yes No
 If Yes, Number **4**

Transducer	0°	45°(2+5)	45°(7+8)	Instrument			
S/N	J05017	L25128	NA	Mfgr.	Sonic	Model	Mack I
Size	.25"	.25"		S/N	05304F	RepRate	1K
Frequency	50MHz	2.25MHz		Reject	OFF	Filter	med.
Beam Angle	0°	45°	↓	Damp	Min	Coax	6' BNC
				Freq.	5.0	Video	NAcm

Calibration 0° 45° 2 & 5 Scan 45° 7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks					
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°	
											In	Out	In	Out	In	Out
1/4 T	2.5%	1.0	NA	NA	NA	NA	NA	NA	NA	NA	13:13	13:45	13:51	14:20	NA	NA
3/4 T	80%	3.5	NA	NA			NA	NA								
1T			80%	3.0			80%	3.0								
2T			50%	6.0			60%	6.0								
3T			30%	9.0			30%	9.0								

Ref. dB 75 56 57



Additional Comments/Sketch



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Ultrasonic Examination Report

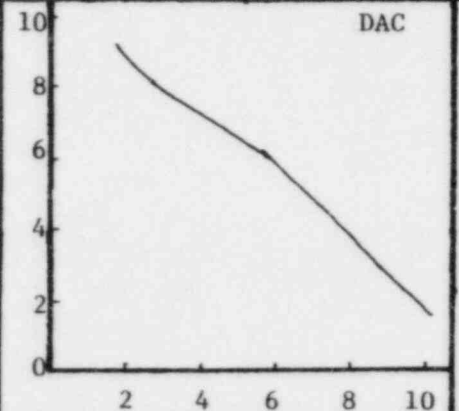
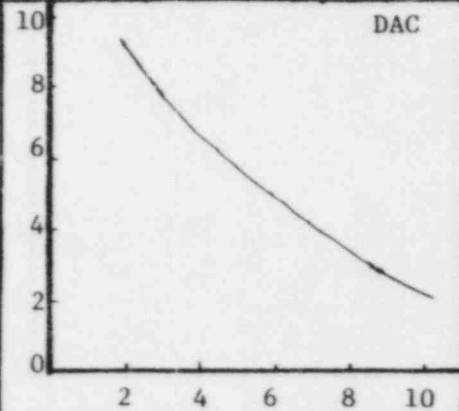
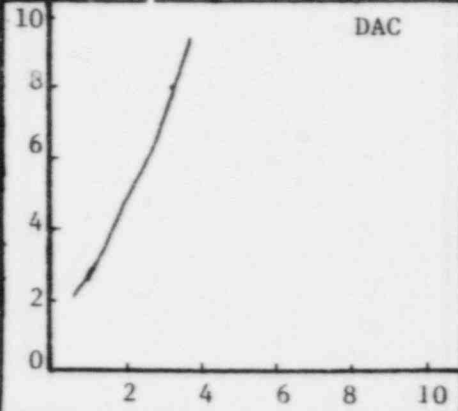
Customer <i>L.P.H.</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/49</i>	Iso/Drawing No. <i>Zone 49 R.2 F.7</i>
Procedure <i>1.51-2.7 R.O.F.L.Y.</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>David L. Cohen II</i>	VCR Supervisor <i>David L. Cohen</i>	Date <i>12/21/82</i>
Component/Piping System <i>A-LPSI Pump Suction</i>	Pipe Size <i>18"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-122</i>	Couplant: <i>Sonotrace</i> Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Transducer	0°	45°	60°	Instrument			
S/N	<i>J05017</i>	<i>L25128</i>	<i>N/A</i>	Mfr.	<i>Sonic</i>	Model	<i>MacKI</i>
Size	<i>.25"</i>	<i>.25"</i>		S/N	<i>05304E</i>	RepRate	<i>1K</i>
Frequency	<i>5.0MHz</i>	<i>2.25MHz</i>		Reject	<i>OFF</i>	Filter	<i>Med.</i>
Beam Angle	<i>0°</i>	<i>45°</i>		Damp	<i>Min.</i>	Coax	<i>6'BNL</i>

Field Changes:
Yes No
If Yes, Number *4*

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
<i>1/4T</i>	<i>25%</i>	<i>1.0</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>13:13</i>	<i>13:45</i>	<i>13:51</i>	<i>14:20</i>	<i>NA</i>	<i>NA</i>
<i>3/4T</i>	<i>80%</i>	<i>3.5</i>	<i>NA</i>	<i>NA</i>			<i>NA</i>	<i>NA</i>									
<i>1T</i>			<i>80%</i>	<i>3.0</i>			<i>80%</i>	<i>3.0</i>									
<i>2T</i>			<i>50%</i>	<i>6.0</i>			<i>60%</i>	<i>6.0</i>									
<i>3T</i>			<i>30%</i>	<i>9.0</i>			<i>30%</i>	<i>9.0</i>									
Ref. dB	<i>75</i>		<i>56</i>				<i>57</i>										



Additional Comments/Sketch

M.R. Martin, ANII 1-11-83



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Ultrasonic Examination Report - Continuation Sheet

Page 2 of 2

Customer <i>L.P.Y.L.</i>	Plant <i>Wareford</i>	Unit <i>3</i>	Loop/ Zone <i>NA 149</i>	Iso/Drawing No. <i>Zone 49 R. 2 F.C. 7</i>
Procedure <i>ISA 2.7 R.O.C.G.</i>	Exam Surface <i>O.P.</i>	Examiner/Level <i>David L. Folan II</i>	VCR Supervisor <i>David L. Folan</i>	Date <i>12/21/82</i>
Component/Piping System <i>A-6 PSI Pump Section</i>	Pipe Size <i>18"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-123</i>	Couplant: Type & Batch # <i>Sonotrace 40 # 8124</i>

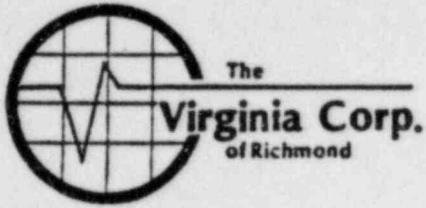
Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>49-059</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Par</i>	<i>Yes</i>	<i>Weld contour did not allow for good contact on S side toe 360°.</i>	<i>Smooth</i>	<i>Contour Ground</i>	<i>N1</i>	<i>Sat</i>	<i>N/A</i>



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Liquid Penetrant
D. Payne ANZI 6/9/82
Examination Report

Customer	LPCL	Plant	Waterford	Unit	3	Loop/Zone	B/50	
Procedure	ISI-3.1 Rev 2 F.C. 2	Examiner/Level	<i>BARRY KEUL / L-II</i>		Date			5-18-82
Component/Piping System	B-LPSI Pump Suction	ISO Drawing No.	Zone 50, Rev 2, FLO		VCR Supervisor			<i>Wanil Dina</i>
	Manufacturer	Type	Batch No.					
Penetrant	Sherwin	Dubl-check	47L01S					
Developer	Sherwin	Dubl-check	129-F6					
Remover	Sherwin	Dubl-check	112-C4					
Weld Number	Comments	PT Results		VT Results				
		NRI	RI	SAT.	UNSAT.			
50-002		✓		✓				
50-004		✓		✓				
50-006		✓		✓				
50-008-LA-6		✓		✓				
50-008LA-7		✓		✓				
50-009		✓		✓				
50-011		✓		✓				
50-012LA-11								



Liquid Penetrant
D. Payne ANII 6/9/82
 Examination Report

Customer LPEL	Plant Waterford	Unit 3	Loop/Zone B/50
Procedure ISI-3.1, Rev 2, F.C. 2	Examiner/Level Bramm Auld / L II	Date 5-19-82	
Component/Piping System B-LPSI Pump System	ISO Drawing No. Zone 50, Rev 2, F.C. 0	VCR Supervisor <i>Daniel Jones</i>	

	Manufacturer	Type	Batch No.
Penetrant	Sherwin	Dubl-check	47L015
Developer	Sherwin	Dubl-check	129-F6
Remover	Sherwin	Dubl-check	113-C4

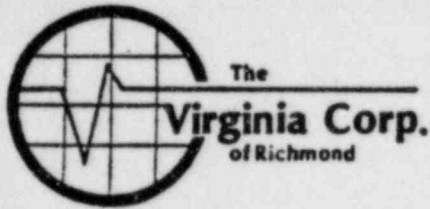
Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
50-012LA-13		✓		✓	
50-013		✓		✓	
50-014LA-13		✓		✓	
50-014LA-15		✓		✓	
50-019		✓		✓	
50-043		✓		✓	
50-045		✓		✓	
50-046LA		✓		✓	
50-046LB		✓		✓	



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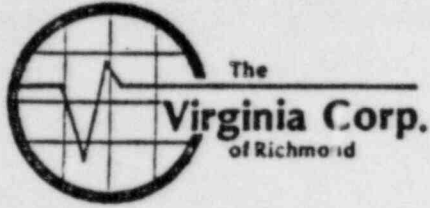
Liquid Penetrant
D. Payne ANII 5/9/82
Examination Report

Customer <i>LPFL</i>		Plant <i>WATERFORD</i>		Unit <i>3</i>		Loop/Zone <i>B) 50</i>	
Procedure <i>ISI-3.1, Rev 2, FC. 2</i>		Examiner/Level <i>Benny Huff / L.II</i>				Date <i>5-20-82</i>	
Component/Piping System <i>B-LPST Pump Suction</i>		ISO Drawing No. <i>Zone 50, Rev 2, FC. 0</i>		VCR Supervisor <i>Daniel Jones</i>			
	Manufacturer	Type	Batch No.				
Penetrant	<i>Sherwin</i>	<i>Dubl-check</i>	<i>47L015</i>				
Developer	<i>Sherwin</i>	<i>Dubl-check</i>	<i>129-F6</i>				
Remover	<i>Sherwin</i>	<i>Dubl-check</i>	<i>112-C4</i>				
Weld Number	Comments	PT Results		VT Results			
		NRI	RI	SAT.	UNSAT.		
<i>50-053LA-54</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-054</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-055LA-54</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-055LA-56</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-056</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-057LA-56</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-057LB-56</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-057LA-58</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-057LB-58</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-058</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-059LA-58</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-062</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-063LA-62</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-063LA-64</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-066</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-067LA-66</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-067LA-68</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-068</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-070</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-071LA-70</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-071LB-70</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			



Liquid Penetrant
D. Payne ANII 6/9/82
Examination Report

Customer <i>LP&L</i>		Plant <i>Waterford</i>		Unit <i>3</i>	Loop/Zone <i>B150</i>	
Procedure <i>ISI-3.1 Rev 2, F.C. 2</i>		Examiner/Level <i>Barry Huff / C-II</i>			Date <i>5-21-82</i>	
Component/Piping System <i>B-LPSI Pump Suction</i>		ISO Drawing No. <i>Zone 50, Rev 2, F.C. 0</i>		VCR Supervisor <i>Daniel Jensen</i>		
	Manufacturer	Type	Batch No.			
Penetrant	<i>Sherwin</i>	<i>Dubl-check</i>	<i>47 L015</i>			
Developer	<i>Sherwin</i>	<i>Dubl-check</i>	<i>129-F6</i>			
Remover	<i>Sherwin</i>	<i>Dubl-check</i>	<i>112-C4</i>			
Weld Number	Comments	PT Results		VT Results		
		NRI	RI	SAT.	UNSAT.	
<i>50-025</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-026LA-25</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-026LA-27</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-027</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-028LA</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-028LB</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-032LA-33</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-033</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-034</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-035LA-34</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-035LA-36</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-036</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-047</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-048</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-049LA-48</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-049LA-50</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-050</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-052</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-053LA-52</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-059LA-60</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-060</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-061LA-60</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-061LB-60</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-061LA-62</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-061LB-62</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-028LC</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		

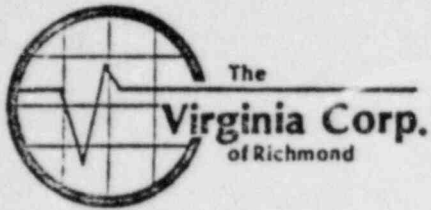


Liquid Penetrant
D. Payne ANII 6/9/82
 Examination Report

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>8/50</i>
Procedure <i>ISE-3.1, Rev 2, E.C. 2</i>	Examiner/Level <i>BARRY Acud / I. II</i>	Date <i>5-22-82</i>	
Component/Piping System <i>B-LPSE Pump Suction</i>	ISO Drawing No. <i>Zone 50, Rev 2, E.C. 0</i>	VCC Supervisor <i>Denise Jones</i>	

	Manufacturer	Type	Batch No.
Penetrant	<i>Sherwin</i>	<i>Dubl-chek</i>	<i>47 6015</i>
Developer	<i>Sherwin</i>	<i>Dubl-chek</i>	<i>129-F6</i>
Remover	<i>Sherwin</i>	<i>Dubl-chek</i>	<i>112-C4</i>

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>50-015</i>		✓		✓	
<i>50-016 LA-15</i>		✓		✓	
<i>50-016 LA-17</i>		✓		✓	
<i>50-017</i>		✓		✓	
<i>50-029</i>		✓		✓	
<i>50-032 LA-29</i>		✓		✓	

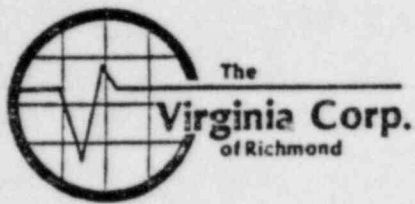


Liquid Penetrant
D. Payne ANZI 6/9/82
 Examination Report

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loc./Zone <i>1B/50</i>
Procedure <i>ISE - 3.1, Rev 0, FC 2</i>	Examiner/Level <i>Chris Fink II F</i>	Date <i>5-25-82</i>	
Component/Piping System <i>B-LPSI Pump Suction</i>	ISO Drawing No. <i>Zone 50, Rev 2, FC 0</i>	VCR Supervisor <i>Manuel Jensen</i>	

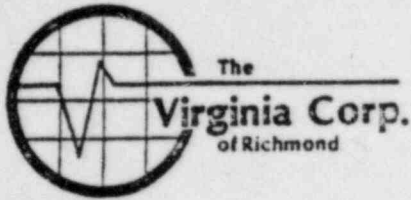
	Manufacturer	Type	Batch No.
Penetrant	<i>Sherwin</i>	<i>DUBL-CHEK</i>	<i>47L015</i>
Developer	<i>Sherwin</i>	<i>DUBL-CHEK</i>	<i>129-F6</i>
Remover	<i>Sherwin</i>	<i>DUBL-CHEK</i>	<i>112-CH</i>

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>50-038</i>		✓		✓	
<i>50-040</i>		✓		✓	
<i>50-041A-40</i>		✓		✓	
<i>50-041A-43</i>		✓		✓	



Liquid Penetrant
H. Payne ANET 1/10/82
 Examination Report

Customer <i>LPCL</i>		Plant <i>Waterford</i>		Unit <i>3</i>		Loop/Zone <i>B / 50</i>	
Procedure <i>ISI-3.1, Rev O, FC 2</i>		Examiner/Level <i>Clinton Frank II</i>				Date <i>6-8-82</i>	
Component/Piping System <i>B LPSE Pump Suction</i>		ISO Drawing No. <i>Zone 50, Rev 2, FC 1</i>		VCR Supervisor <i>Daniel Jones</i>			
	Manufacturer	Type	Batch No.				
Penetrant	<i>Sherwin</i>	<i>Dubl-check</i>	<i>47L015</i>				
Developer	<i>Sherwin</i>	<i>Dubl-check</i>	<i>129 F6</i>				
Remover	<i>Sherwin</i>	<i>Dubl-check</i>	<i>225 B4</i>				
Weld Number	Comments	PT Results		VT Results			
		NRI	RI	SAT.	UNSAT.		
<i>50-023</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-077LA-76</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-077LB-76</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-077LA-78</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-077LB-78</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-078</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-079LA-78</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-079LA-80</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-080</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-088LA-47</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
<i>50-088LA-48</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			



Liquid Penetrant
D. Payne ANII 6/10/82
Examination Report

Customer		Plant	Unit	Loop/Zone		
LP&L		Waterford	3	B/50		
Procedure		Examiner/Level	Date			
ISI-3.1 Rev 0, FC2		Chas J Ford II	6-9-82			
Component/Piping System		ISO Drawing No.	VCP Supervisor			
B. LPSI Pump Suction		Zone 50, Rev 2, FC 1	Daniel Jones			
	Manufacturer	Type	Batch No.			
Penetrant	Sherwin	Dubl-check	47L-015			
-Developer	Sherwin	Dubl-check	129-F6			
Remover	Sherwin	Dubl-check	225-B4			
Weld Number		Comments	PT Results		VT Results	
			NRI	RI	SAT.	UNSAT.
50-46LC			✓		✓	



The
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Liquid Penetrant
D. Payne ANZI 6/14/82
 Examination Report

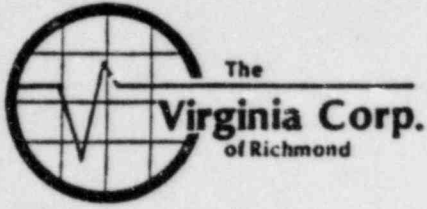
Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>III</i>	Loop/Zone <i>N/A/50</i>
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Procedure <i>ISI 3.1 REV. 0 FC-2</i>	Examiner/Level <i>Barry Nuff / L II</i>	Date <i>6-11-82</i>
---	--	------------------------

Component/Piping System <i>B-LPSI Pump Suction</i>	ISO Drawing No. <i>ZONE #50 REV. 2 FC-1</i>	VCR Supervisor <i>Daniel Jans</i>
---	--	--------------------------------------

	Manufacturer	Type	Batch No.	
Penetrant	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>47 L 015</i>	
Developer	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>129 F 6</i>	
Remover	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>225 B 4</i>	

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT	UNSAT.
<i>50-076</i>		✓		✓	
<i>50-071 -</i>	<i>LB-72</i>	✓		✓	

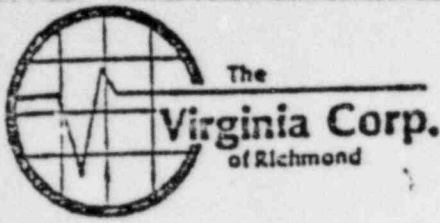


Liquid Penetrant
D. Payne ANIT 6/24/82
Examination Report

Customer LP&L	Plant Waterford	Unit 3	Loop/Zone B-50
Procedure ISI 3.1 Rev 0 F.C. 2	Examiner/Level Chris Frank II	Date 6-22-82	
Component/Piping System LPSI Pump Suction - B	ISO Drawing No. Zone 50 Rev 2 F.C. 1	VCR Supervisor Daniel Jensen	

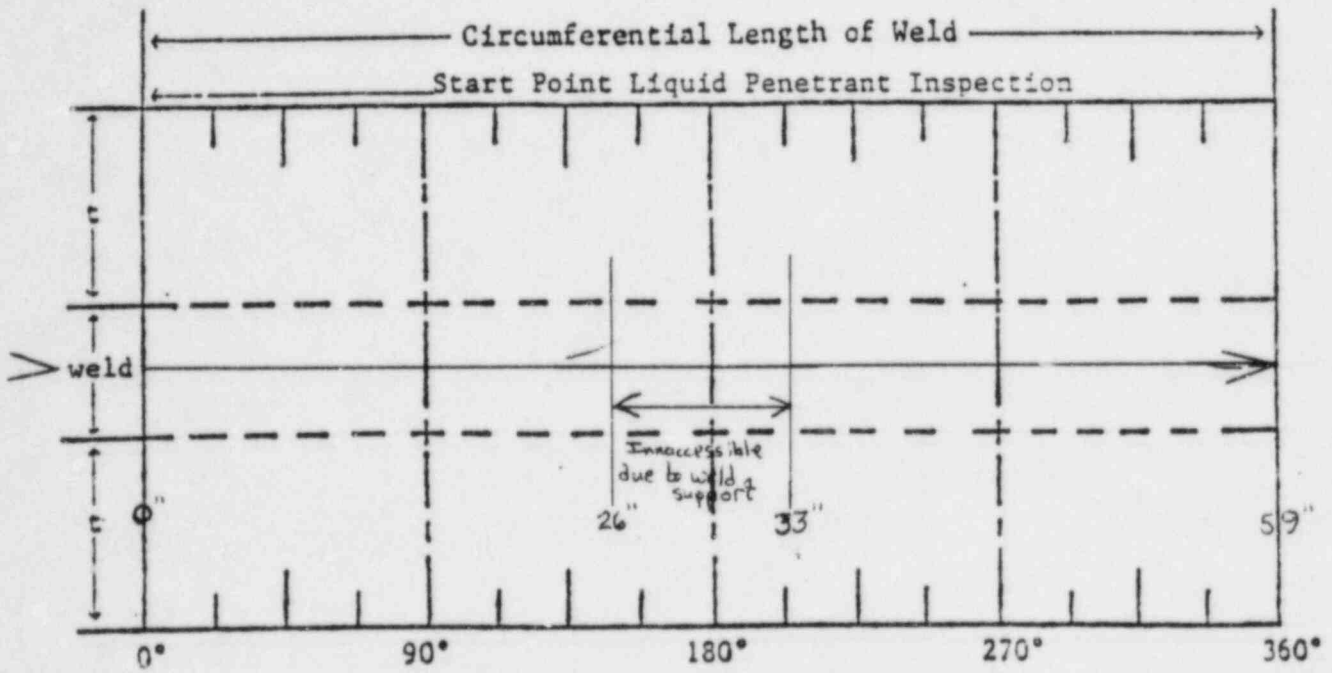
	Manufacturer	Type	Batch No.	
Penetrant	Sherwin	Dubl. Check	47L-015	
Developer	Sherwin	Dubl. Check	129-FL	
Remover	Sherwin	Dubl. Check	225-B4	

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
50-071-LA-72		✓		✓	
50-073-LA-72		✓		✓	
50-073-LA-76		✓		✓	
50-072	Partial - Incomplete - See Attached Sheet	✓		✓	



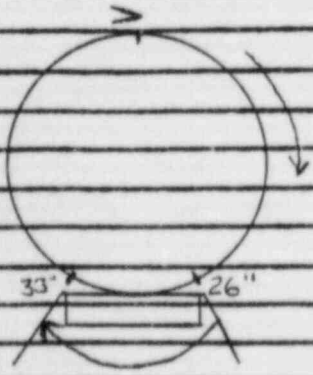
Liquid Penetrant
D. Payne ANII 6/24/82
Indication Record

Customer LPFL	Plant Waterford	Unit 3	Loop/Zone B/50
Procedure ISI 3.1 Rev 0 F.C. 2	Examiner/Level Chas J Frank #	Date 6-22-82	
Component/Piping System LPSI Pump Suction-B		VAR Site Supervisor Dan Jensen	
Weld No. 50-072	ISO/Drawing No. Zone 50, Rev 2, F.C. 1		

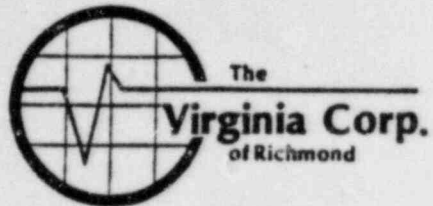


Remarks

Due to a welded support, the following length of circumferential weld # 50-072 cannot be liquid Penetrant inspected:
From Datum 26" to 33" Area



Inaccessible
due to weld
support



Liquid Penetrant
D. Payne ANIT 6/24/82
Examination Report

Customer <i>LPCL</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>B/50</i>			
Procedure <i>ISI-3.1, Rev 0, FC. 2</i>		Examiner/Level <i>Charles J. Frank II</i>		Date <i>6-23-82</i>		
Component/Piping System <i>B-LPSI Pump Suction</i>		ISO Drawing No. <i>Zone 50, Rev 2, FC. 1</i>		VGR Supervisor <i>Daniel Jensen</i>		
	Manufacturer	Type	Batch No.			
Penetrant	<i>Sherwin</i>	<i>Dubl-check</i>	<i>47L-015</i>			
Developer	<i>Sherwin</i>	<i>Dubl-check</i>	<i>129-F6</i>			
Remover	<i>Sherwin</i>	<i>Dubl-check</i>	<i>225-B4</i>			
Weld Number	Comments	PT Results		VT Results		
		NRI	RI	SAT.	UNSAT.	
<i>50-082</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-083</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
<i>50-084</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		



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Liquid Penetrant
R. Payne ANII 7/16/82
Examination Report

Customer <i>LP&L</i>		Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>B/50</i>	
Procedure <i>IST 3.1 R.O. F.C.2</i>		Examiner/Level <i>Chris E. Zorwald II</i>		Date <i>7-15-82</i>	
Component/Piping System <i>LPST Pump Suction</i>		ISO Drawing No. <i>Zone 50, R.2, F.C.1</i>	VCR Supervisor <i>Nenil Jones</i>		
	Manufacturer	Type	Batch No.		
Penetrant	<i>Sherwin Inc</i>	<i>Dubl-check</i>	<i>476-015</i>		
Developer	<i>Sherwin Inc</i>	<i>Dubl-check</i>	<i>129 F6</i>		
Remover	<i>Sherwin Inc</i>	<i>Dubl-check</i>	<i>225 B4</i>		
Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>50-064</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>50-065 LA-64</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>50-065 LA-66</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



Liquid Penetrant
D. Payne ANIT 8/20/82
Examination Report

Customer LPOL	Plant WATERFORD	Unit 3	Loop/Zone B 50
Procedure ISI 3.1 REV-0 FC-3	Examiner/Level Robert W Anderson II	Date 8-19-82	
Component/Piping System B-LPSI PUMP SUCTION	ISO Drawing No. ZONE 50 REV-2 FC-3	VCR Supervisor [Signature]	

	Manufacturer	Type	Batch No.
Penetrant	SHERWIN	DUBL-CHEK	47L-015
Developer	SHERWIN	DUBL-CHEK	129-F6
Remover	SHERWIN	DUBL-CHEK	225-B4

Weld/Iter. Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
50-089		✓		✓	
50-090		✓		✓	



M.R. Martin, ANEI 7-7-83
Liquid Penetrant

Examination Report

Customer LP & L		Plant Waterford		Unit 3	Loop / Zone B / 50	
Procedure ISI 3.1, R.1		Examiner/Level Richard A. Humphrey II			Date 7-6-83	
Component/Piping System B-LPSI Pump Suction		ISO Drawing No. Zone 50, R5		VCR Supervisor Daniel Jensen		
	Manufacturer	Type	Batch No.			
Penetrant	Dubl chek	DP-51	214 E 47			
Developer	Dubl chek	D-100	230 K6			
Remover	Dubl chek	DR-60	228 L4			
Weld/Item Number	Comments	PT Results		VT Results		
		NRI	RI	SAT.	UNSAT.	
50-015	Reexamined after additional grinding at 10 o'clock position from 37" to 42"	✓		✓		



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M.R. Martin, ANII 7/11/83
Liquid Penetrant

Examination Report

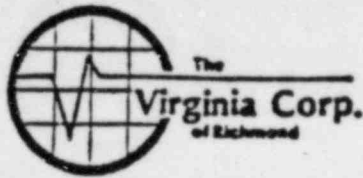
Customer *LP+L* Plant *Waterford* Unit *3* Loop / Zone *2/50*

Procedure *IS-3.1, R1* Examiner/Level *Kenn White / II / Richard H. Humphries II* Date *7-9-83*

Component/Piping System *B-LPSI Pump Suction* ISC Drawing No. *Zone 50, R.5.F.C.1* VCR Supervisor *Daniel Jensen*

	Manufacturer	Type	Batch No.
Penetrant	<i>Sherwin</i>	<i>DP-51</i>	<i>214 E47</i>
Developer	<i>Sherwin</i>	<i>D-100</i>	<i>230 K6</i>
Remover	<i>Sherwin</i>	<i>DR-60</i>	<i>228L4</i>

Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>50-092</i>		✓		✓	
<i>50-093LA-092</i>		✓		✓	
<i>50-093LA-094</i>		✓		✓	
<i>50-094</i>		✓		✓	
<i>50-095</i>					



M.R. Martin ANEF 10-8-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP & L	Plant WATERFORD	Unit 3	Loop/Zone B 50
Component/Piping System B - LPSI PUMP SUCTION	Examiner/Level Larry Longenecker II	Date 10-5-82	
Procedure I.S.I. 2.5 R-0	Iso/Drawing No. ZONE 50 R-2, F.A.	VCR Supervisor Daniel Jensen	Continuation Sheet Attached [] Yes [X] No

Equipment

Instrument		Transducer		Calibration	
Mfgr.	SONIC	Mfgr.	Size	Cal. Block UT-120	
Model	MARK 1	K-B AEROTECH	.25" DIA.	Cal. Block	
S/N	02307E	Freq.	5. MHZ.	Range Cal. .36" @ 6.0	
Reject	OFF	Serial No. K-B 2084		Calibration Checks	
Damp.	MIN.			CAL. IN 8:10	
Freq.	5. MHZ.	Coax. Cable		CAL. OUT 11:40	
Rep. Rate	3K	6'			
Filter	OFF	Gain			
Video	NORM	83 dB			
Couplant	SONOTRACE 40 812A				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
50-040	12	.498	.390	.516	NA	NA	NA	NA	NA
50-040	2	.444	.390	.468					
50-040	4	.438	.390	.510					
50-040	6	.486	.390	.588					
50-040	8	.456	.390	.528					
50-040	10	.450	.390	.510					

Sketch/Identification



M.R. Martin, ANSI 10-8-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LP & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>B 50</i>
Component/Piping System <i>B-LPSI PUMP SUCTION</i>		Examiner/Level <i>Gary Longenecker II</i>	Date <i>10-4-82</i>
Procedure <i>I.S.I. 2.5 R.O</i>	Iso/Drawing No. <i>ZONE 50 R-2, FC. 4</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached [] Yes [x] No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>SONIC</i>	Mfgr. <i>K.B. AEROTECH</i>	Size <i>.25" DIA.</i>	Cal. Block <i>UT-120</i>	
Model <i>MARK 1</i>			Cal. Block	
S/N <i>01930E</i>	Freq. <i>5. MHZ.</i>	Range Cal. <i>.36" Ø 6.0</i>		
Reject <i>OFF</i>			Calibration Checks	
Damp. <i>MIN.</i>	Serial No. <i>KB 2084</i>			
Freq. <i>5. MHZ.</i>	Coax. Cable <i>6'</i>	<i>CAL. IN 9:49</i>		
Rep. Rate <i>3K</i>			<i>CAL. OUT 12:00</i>	
Filter <i>OFF</i>	Gain <i>81 db</i>	<i>CAL. IN 2:00</i>		
Video <i>NORM</i>			<i>CAL. OUT 5:25</i>	
Couplant <i>SONOTRACE 40 #812A</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>50-015</i>	<i>12</i>	<i>.600</i>	<i>.402</i>	<i>.516</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>50-015</i>	<i>2</i>	<i>.456</i>	<i>.402</i>	<i>.498</i>					
<i>50-015</i>	<i>4</i>	<i>.480</i>	<i>.396</i>	<i>.546</i>					
<i>50-015</i>	<i>6</i>	<i>.450</i>	<i>.402</i>	<i>.582</i>					
<i>50-015</i>	<i>8</i>	<i>.510</i>	<i>.402</i>	<i>.540</i>					
<i>50-015</i>	<i>10</i>	<i>.498</i>	<i>.402</i>	<i>.486</i>					
<i>50-023</i>	<i>12</i>	<i>.420</i>	<i>.534</i>	<i>.402</i>					
<i>50-023</i>	<i>2</i>	<i>.456</i>	<i>.516</i>	<i>.402</i>					
<i>50-023</i>	<i>4</i>	<i>.480</i>	<i>.522</i>	<i>.396</i>					
<i>50-023</i>	<i>6</i>	<i>.480</i>	<i>.594</i>	<i>.378</i>					
<i>50-023</i>	<i>8</i>	<i>.504</i>	<i>.522</i>	<i>.396</i>					
<i>50-023</i>	<i>10</i>	<i>.438</i>	<i>.510</i>	<i>.396</i>					

Sketch/Identification

W.R. Martin, ANFF 10-8-82



Ultrasonic Examination Report

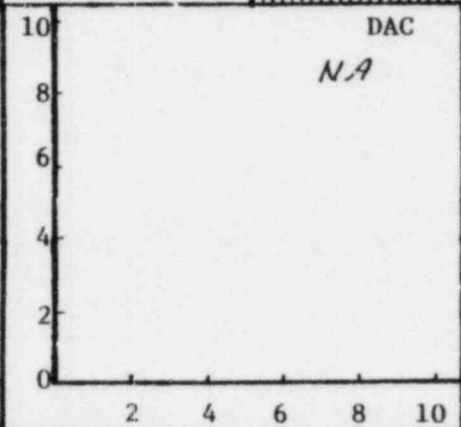
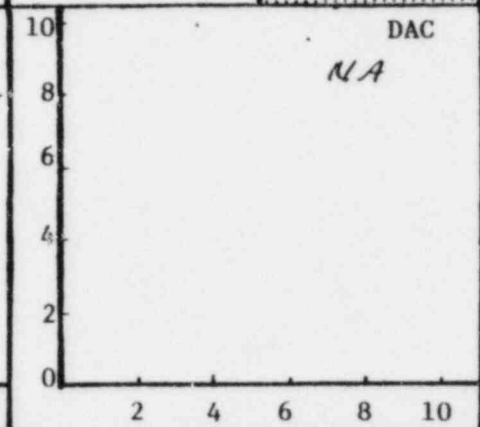
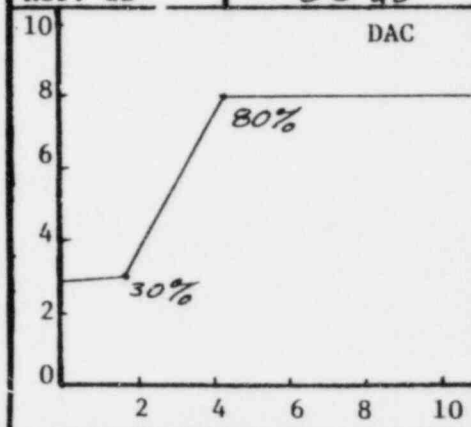
Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone B 50	Iso/Drawing No. ZONE 50 R-2, F.C. 4
Procedure I.S.I. 2.7 R0, F.C.3	Exam Surface O.D.	Examiner/Level <i>Nary Longenecker II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date 10-5-82
Component/Piping System B - LPSI PUMP SUCTION	Pipe Size 14"	Weld Type BUTT	Cal. Block # UT-120	Couplant: SONOTRACE Type 40 Batch No. 8129

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **3**

Transducer	0°	45°	60°	Instrument			
	S/N KB2084	NA	NA	Mfr. SONIC	Model MARK I		
	Size .25" DIA.			S/N 01058E	RepRate 3K		
	Frequency 5. MHZ.			Reject OFF	Filter OFF		
Beam Angle 0°				Damp MIN.	Coax 6'		
				Freq. 5. MHZ	Video NORM		

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
1/4 T	30%	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	8:10	11:40	NA	NA	NA	NA
3/4 T	80%	3.9															
1 T	NA	6.0															
Ref. dB	83 dB																



Additional Comments/Sketch

M.R. Martin, ANEI 10-8-82

Ultrasonic Examination Report



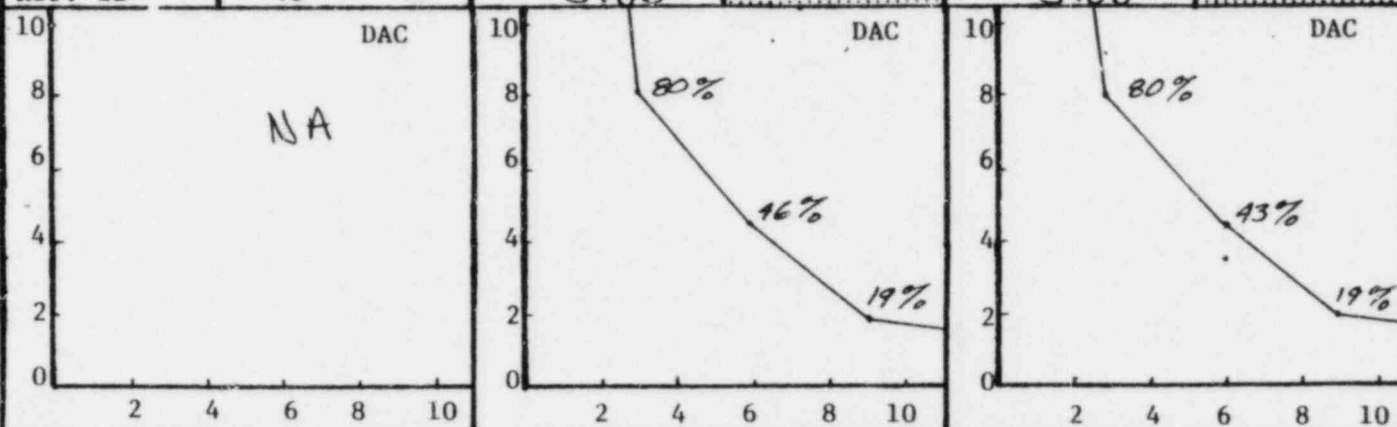
Customer LPEL	Plant WATERFORD	Unit 3	Loop/Zone B 50	Iso/Drawing No. ZONE 50 R-2, F.C.4
Procedure ISI 2.7 R.O.F.C.3	Exam Surface O.D.	Examiner/Level Nay Longenecker II	VCR Supervisor Daniel Jensen	Date 10-5-82
Component/Piping System B-LPSI PUMP SUCTION	Pipe Size 14"	Weld Type BUTT	Cal. Block UT-120	Couplant: SONO TRACE Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **3**

	Transducer	0°	45°	60°	Instrument						
	S/N		H25148		Mfg.	SONIC	Model	MARK I			
	Size		125"		S/N	01930E	RepRate	3K			
	Frequency		2.25 MHz		Reject	OFF	Filter	H1			
	Beam Angle		45°		Damp	MIN.	Coax	6'			
Calibration 0°		2 & 5 Scan			7 & 8 Scan			Freq.	20 MHz	Video	NORM

Calibration Reflector Location	Signal Amp.	Sweep	2 & 5 Scan			7 & 8 Scan			Calibration Checks										
			Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	0°		45°		60°					
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out	
1T	NA	NA	80%	3.0	NA	NA	NA	80%	3.0	NA	NA	NA	NA	NA	NA	1:35	5:25	NA	NA
2T			46%	5.8				43%	6.4										
3T			19%	9.0				19%	9.3										



Additional Comments/Sketch

M.R. Martin, ASES 10-8-82



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Ultrasonic Examination Report - Continuation Sheet

Page of

Customer LP & L	Plant WATERFORD	Unit 3	Loop/ Zone B 50	Iso/Drawing No. ZONE 50 R-2 F.C. 4
Procedure ISI. 2.7 RO FC.3	Exam Surface O.D.	Examiner/Level Mary Longenecker II	VCR Supervisor Daniel Jensen	Date 10-5-82
Component/Piping System B - LPSI PUMP SUCTION	Pipe Size 14"	Weld Type BUTT	Cal. block UT-120	Couplant: Type & Batch # SONOTRACE 40 8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks	
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual		
50-023	NA	NA	YES	PAR	PAR	NA	* 1	CLEAN	GROUND	R.I.	SAT.	
50-040		YES	NA	NA	NA	PAR	* 2	CLEAN	GROUND	N.I.	SAT.	
							* 1					
							<p>7 & 8 SCANS HAD APPROX. 05% LOSS OF CONTACT DUE TO O.D. WELD GEO. IN 5 SCAN FROM 43" TO 1" (44" CIRC.) A 1" BRANCH CONNECTION IS NOT ALLOWING FULL V PATH THROUGH BASE METAL ON 5 SIDE OF WELD.</p>					
							* 2					
							<p>0° HAD APPROX. 05% LOSS OF CONTACT DUE TO O.D. WELD GEO.</p>					

W.R. Martin, ANE 10-8-82

Indication Record

Ultrasonic Examination Report



Customer		Plant		Unit		Loop							
LP4L		WATERFORD		3		B							
Procedure		Examiner/Level		VCR Supervisor		Date							
I.S.I. 27 RO, F.C. 3		Mary Pennington II		Danilo A. Denon		10-5-82							
Component/Piping System		ISO Drawing No.		Cal. Standard No./Thickness									
B - LPSI PUMP SUXTION ZONE 50 R-2, F.C. 4		UT-120		.36"									
Weld No.	Ind Max. % DAC	Indication Length		Minimum Depth S.U. Pos.	S.U. Sweep Reading	Maximum Depth S.U. Pos.	Sweep Reading	Beam Angle	Beam Dir.	Base Metal Thickness 2 Side	Weld Thick.	Base Metal Thickness 5 Side	Remarks
		From	To										
50-023	1 85%	43"	2 15/16"	3/4" (5)	3.0	1 1/16" (5)	*	45°	5	.534"	.420"	.402"	* MAX. DEPTH SWEEP WAS OBSCURED BY INDICATION NO. 2
50-023	2 75%	43"	1 1/16"	3/32" (5)	3.0	3/32" (5)	3.7	45°	5	.534"	.420"	.402"	
50-023	3 65%	1/2"	1 1/4"	3/16" (5)	2.2	1/16" (5)	2.8	45°	2	.534"	.420"	.402"	
50-023	4 50%	9"	11 3/8"	3/16" (5)	2.9	1/8" (5)	3.1	45°	2	.522"	.480"	.396"	
50-023	5 75%	21 1/2"	25 1/4"	1/8" (5)	2.9	1/8" (5)	*	45°	2	.599"	.480"	.378"	* MAX. DEPTH SWEEP WAS OBSCURED BY I.D. GED. SIGNAL.
50-023	6 55%	30"	32 5/8"	1/16" (5)	2.5	1/16" (5)	3.1	45°	2	.522"	.509"	.396"	
50-023	7 75%	41"	42"	5/32" (5)	2.6	1/8" (5)	3.4	45°	2	.534"	.420"	.402"	
		CIRCUMFERENCE OF PIPE IS 44"											

W.R. Martin, ANET 10-8-82

Ultrasonic Examination Report



Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone B 50	Iso/Drawing No. ZONE 50 R-2, F.C. 4
Procedure ISI. 2.7 R0, FC 3	Exam Surface O.D.	Examiner/Level Nary Longenecker II	VCR Supervisor Daniel Jensen	Date 10-4-82
Component/Piping System B - LPSI PUMP SUCTION	Pipe Size 14"	Weld Type BUTT	Cal. Block UT-120	Couplant: SONOTRACE Type 40 Batch No. 8124

Continuation Sheet Attached

Yes No

Field Changes:

Yes No

If Yes, Number **3**

Transducer	0°	45°	60°	Instrument			
S/N	KB2084	NA	NA	Mfg.	SONIC	Model	MARK I
Size	.25" DIA			S/N	01930E	RepRate	3K
Frequency	5. MHZ.			Reject	OFF	Filter	OFF
Beam Angle	0°			Damp	MIN.	Coax	6'
				Freq.	5. MHZ.	Video	NORM

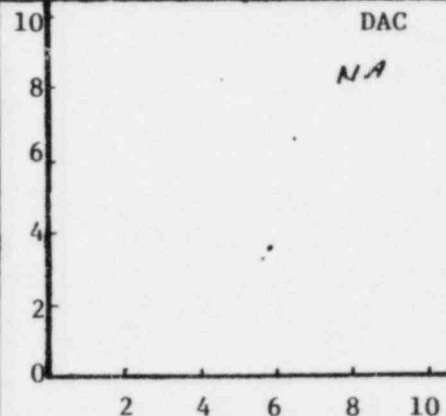
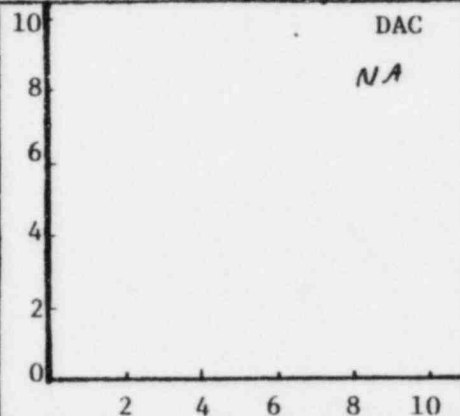
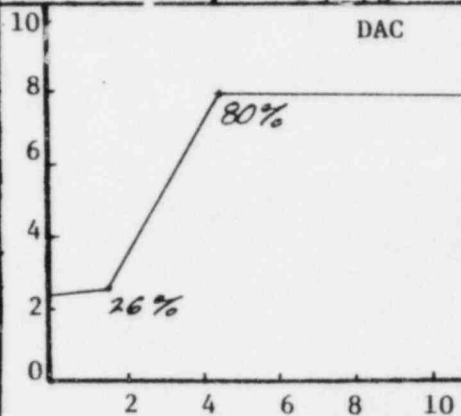
Calibration 0°

2 & 5 Scan

7 & 8 Scan

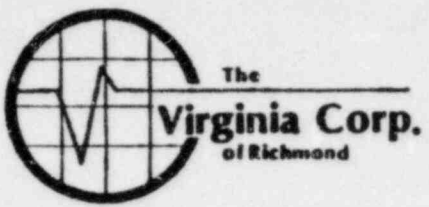
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			Calibration Checks					
					Scribe Line	50% DAC				Scribe Line	50% DAC		0°		45°		60°	
						In	Out				In	Out	In	Out				
1/4 T	26%	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	9:49	12:00	NA	NA	NA	NA	
3/4 T	80%	3.9																
1 T	NA	6.0																

Ref. dB **81.46**



Additional Comments/Sketch

M.R. Martin, ANFF 10-8-82



Ultrasonic Examination Report

Customer LP & L	Plant WATERFORD	Unit 3	Loop/Zone B 50	Iso/Drawing No. ZONE 50 R-2, F.C. 4
Procedure ISI. 2.7 R-0, F.C. 3	Exam Surface O.D.	Examiner/Level Sary Langenecker II	VCR Supervisor Daniel Dineen	Date 10-4-82
Component/Piping System B - LPSI PUMP SUCTION	Pipe/Size 14"	Weld Type BUTT	Cal. Block # UT-120	Couplant: SONOTRACE Type 40 Batch No. 8129

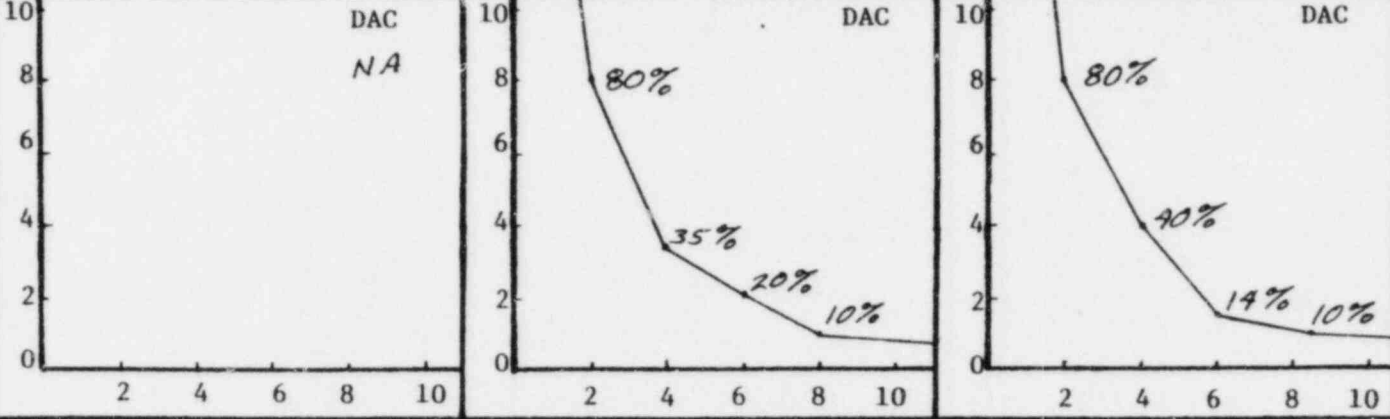
Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **3**

Transducer	0°	45°	60°	Instrument				
	S/N	NA	H25148	NA	Mfg.	SONIC	Model	MARK I
	Size		.25" DIA.		S/N	01058E	RepRate	3K
	Frequency		2.25 MHZ		Reject	OFF	Filter	H1
	Beam Angle		45°		Damp	MIN.	Coax	6'
				Freq.	2. MHZ.	Video	NORM	

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	2.0	NA	NA	80%	2.0	NA	NA	NA					
2T			35%	3.9			40%	4.2								
3T			20%	6.0			14%	6.2								
4T			10%	8.0			10%	8.5								

Ref. dB **43 db** **42 db**



Additional Comments/Sketch



The Virginia Corp.
of Richmond

Ultrasonic Examination Report - Continuation Sheet

Page of

Customer LP & L	Plant WATERFORD	Unit 3	Loop/ Zone B 50	Iso/Drawing No. ZONE 50 R-2, FC.4
Procedure I.S.I. 7.7 R0, FC3	Exam Surface O.D.	Examiner/Level Nay Longenecker II	VCR Supervisor Daniel Jensen	Date 10-4-82
Component/Piping System B - LPSI PUMP SUCTION	Pipe Size 14"	Weld Type BUTT	Cal. Block UT-120	Couplant: Type & Batch # SONOTRACE 40 #8129

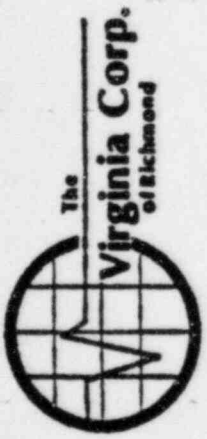
Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
50-015	NA	YES	YES	PAR	PAR	* 1	CLEAN	GROUND	RI	SAT	* 3
50-023	PAR	NA	NA	NA	PAR	* 2	CLEAN	GROUND	RI	SAT	
						* 1 APPROX. 05% LOSS OF CONTACT IN 0°, 7 & 8 SCANS DUE TO O.D. WELD GEO.					
						* 2 BASE METAL SCAN PAR ON 5 SIDE DUE TO 1" BRANCH CONNECTION FROM 43" TO 1" (44" CIRC.). 0° SCAN HAD APPROX. 05% LOSS OF CONTACT DUE TO O.D. WELD GEO.					
						* 3 O.D. GEO. INTERMITTENT 21" TO 39" 7/8" (2) @ 4.7 SW. 100% DAC IN THE 2 SCAN.					

M.R. Martin, ANFI 8-82

Indication Record

Ultrasonic Examination Report

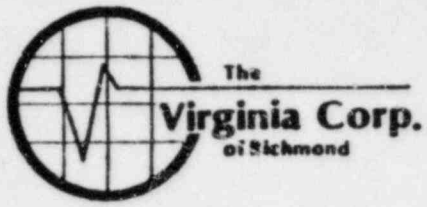
Customer	LP & L	Plant	WATERFORD	Unit	3	Loop	B
Procedure	I.S.I. 2.7 R.O, F.C.3	Examiner/Level	II Gary Longenecker	VCR Supervisor	Donal Dene	Date	10-4-82
Component/Piping System	B - LPSI PUMP SUCTION	ISO Drawing No.	ZONE 50 R-Z F.C.4	Cal. Standard No./Thickness	UT-120		.36"



Weld No.	Ind No.	Max. % DAC	Indication Length		Minimum Depth S.U. Sweep Reading	Maximum Depth S.U. Sweep Reading	Beam Angle	Beam Dir.	Base Metal Thickness 2 Side	Weld Thick.	Base Metal Thickness 5 Side	Remarks
			From	To								
50-015	1	160%	6 1/4"	6 1/2"	1.9	1/8" (5)	0°	0°	.402"	.456"	.498"	
50-015	2	80%	8 3/8"	9"	1.5	3/16" (5)	0°	0°	.402"	.456"	.498"	
50-015	3	140%	38 1/2"	39 3/8"	6.5	1 3/32" (2)	45°	2	.402"	.498"	.486"	PEAK 1 1/32" (2) 6.954"
50-023	1	100%-154%	7 1/6"	7 1/6"	4.2	5/8" (5)	0°	0°	.534"	.420"	.402"	
50-023	2	85%	1 1/4"	1 3/16"	3.0	3/8" (5)	0°	0°	.534"	.420"	.402"	
50-023	3	100%-134%	2 1/4"	2 3/4"	4.4	1/2" (5)	0°	0°	.534"	.420"	.402"	
50-023	4	100%-54%	2 5/16"	3 3/16"	3.6	7/8" (5)	0°	0°	.534"	.420"	.402"	
50-023	5	100%-144%	3"	3 1/2"	3.6	2 1/4" (5)	0°	0°	.534"	.420"	.402"	
50-023	6	100%-34%	3 3/4"	3 7/8"	3.6	1 1/2" (5)	0°	0°	.534"	.420"	.402"	
50-023	7	100%-34%	5 3/8"	5 1/2"	3.7	5/16" (5)	0°	0°	.516"	.456"	.402"	
50-023	8	100%-44%	5 7/8"	5 3/4"	3.9	5/16" (5)	0°	0°	.516"	.456"	.402"	
50-023	9	100%-84%	6"	6 1/4"	3.2	3/8" (5)	0°	0°	.516"	.456"	.402"	
50-023	10	100%	6 1/4"	6 3/8"	3.4	1/4" (5)	0°	0°	.516"	.456"	.402"	
50-023	11	100%-64%	6 1/16"	7 1/8"	3.0	1/4" (5)	0°	0°	.516"	.456"	.402"	
50-023	12	75%	10 1/4"	10 1/16"	3.2	3/8" (5)	0°	0°	.516"	.456"	.402"	
50-023	13	125%	15 1/4"	15 3/8"	2.4	1/4" (5)	0°	0°	.522"	.480"	.396"	SPOT DUE TO SURFACE CONDITION
50-023	14	100%-34%	16"	16 3/16"	3.6	3/16" (5)	0°	0°	.522"	.480"	.396"	
50-023	15	100%-94%	16 3/8"	16 1/2"	2.8	7/8" (5)	0°	0°	.522"	.480"	.396"	
50-023	16	100%-74%	40 3/8"	40 1/16"	4.5	3/32" (5)	0°	0°	.534"	.420"	.402"	
50-023	17	100%-44%	41 3/16"	41 5/8"	4.1	1 1/8" (5)	0°	0°	.534"	.420"	.402"	
50-023	18	93%	42 1/16"	42 3/16"	3.9	5/16" (5)	0°	0°	.534"	.420"	.402"	
50-023	19	100%-74%	43 9/16"	43 3/4"	4.6	1/8" (5)	0°	0°	.534"	.420"	.402"	

M.R. Martin, ANSI 10-8-82

Ultrasonic Examination Report



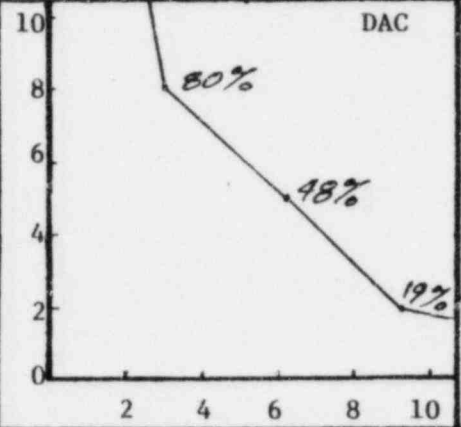
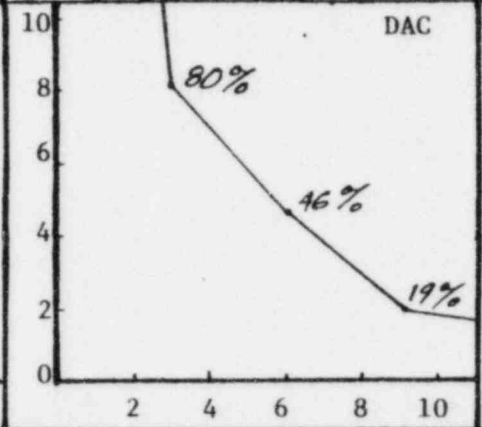
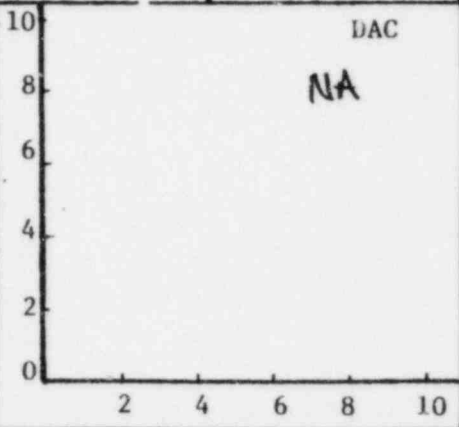
Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone B 50	Iso/Drawing No. ZONE 50 R-2.F.C.4
Procedure ISI 2.7 R-0.F.C.3	Exam Surface O.D.	Examiner/Level Nav Longenecker II	VCR Supervisor Donald Jensen	Date 10-7-82
Component/Piping System B-LP&L PUMP SUCTION	Pipe Size 14"	Weld Type BUTT	Cal. Block # UT-120	Couplant: SONOTRACE Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **3**

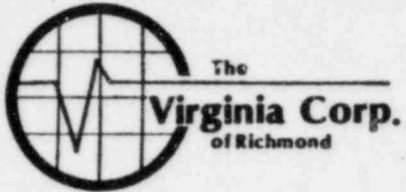
Transducer	0°	45°	60°	Instrument			
S/N	NA	H25136	NA	Mfr.	SONIC	Model	MARK I
Size		.25" DIA		S/N	01930E	RepRate	3K
Frequency		2.25 MHz		Reject	OFF	Filter	H1
Beam Angle	~	45	~	Damp	MIN.	Coax	6'
				Freq.	2.0 MHz	Video	NORM

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
1T	NA	NA	80%	3.0	NA	NA	80%	3.0	NA	NA	NA	NA	NA	9:21	11:50	NA	NA
2T			46%	5.8			48%	6.4									
3T			19%	9.0			19%	9.3									



Additional Comments/Sketch

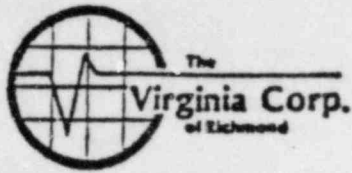
M.R. Martin, ANEI 10-8-82



Ultrasonic Examination Report - Continuation Sheet Page of

Customer LPEL	Plant WATERFORD	Unit 3	Loop/Zone B 50	Iso/Drawing No. ZONE 50 R-2.F.C.4
Procedure ISI 2.7 R-O.E.C.3	Exam Surface O.D.	Examiner/Level Nancy Longenecker II	VCR Supervisor Daniel Jensen	Date 10-7-82
Component/Piping System B-LPST PUMP SECTION	Pipe Size 14"	Weld Type BUTT	Cal. Block UT-120	Couplant: Type & Batch # SOMOTRACE 40 8124

Weld No.	Base Metal Scan	Scan Direction	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
			2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
50-040	NA	NA	YES	YES	PAR	NA	APPROXIMATE 8% LOSS OF CONTACT DUE TO O.D. WELD GEOMETRY	CLEAN	GROUND	NI.	SAT.	*
							* I.D. GEO. NOTICED IN 2 SCAN FROM 33" +0.34 7/8" AT 3/4" (2) 3.35 WEEP F 55% DAC					



W.R. Martin, ANEI 10/8/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP4L	Plant WATERFORD	Unit 3	Loop/Zone NA 50
Component/Piping System B-LPSE PUMP SUCTION		Examiner/Level <i>James Linnett</i> LVII	Date 10-7-82
Procedure ISI 2.5 REV-0 FC-0	Iso/Drawing No. 4 ZONE 50 REV-2 FC-3	VCR Supervisor <i>JE Daniel Jones</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr.	SONIC	Mfgr.	PANAMETRIC	Cal. Block UT-123
Model	MARK I	Size	.25"	Cal. Block
S/N	02307E	Freq.	5 MHZ	Range Cal. .641"
Refect	OFF	Serial No.	44650	Calibration Checks IN = 7:41 OUT = 11:05
Damp.	MIN	Coax. Cable	6' BNC TO PC	
Freq.	5	Gain	60 DB	
Rep. Rate	3K			
Filter	H1			
Video	NORM			
Couplant SONOTRACE 40 5/8 8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
50-048	12	.327"	.385"	.417"	50-056	12	.610"	.513"	.411"
50-048	2	.417"	.391"	.417"	50-056	2	.616"	.507"	.404"
50-048	4	.327"	.379"	.411"	50-056	4	.578"	.616"	.398"
50-048	6	.411"	.379"	.398"	50-056	6	.616"	.539"	.411"
50-048	8	.424"	.385"	.398"	50-056	8	.616"	.385"	.411"
50-048	10	.475"	.366"	.398"	50-056	10	.616"	.501"	.411"
50-052	12	.526"	.411"	.578"	50-060	12	.379"	.610"	.385"
50-052	2	.436"	.411"	.603"	50-060	2	.436"	.610"	.398"
50-052	4	.411"	.398"	.603"	50-060	4	.417"	.610"	.398"
50-052	6	.411"	.424"	.565"	50-060	6	.379"	.603"	.398"
50-052	8	.417"	.449"	.578"	50-060	8	.539"	.616"	.398"
50-052	10	.398"	.411"	.616"	50-060	10	.552"	.610"	.385"

Sketch/Identification

W.R. Martin, ANFI 10-8-82



Ultrasonic Examination Report

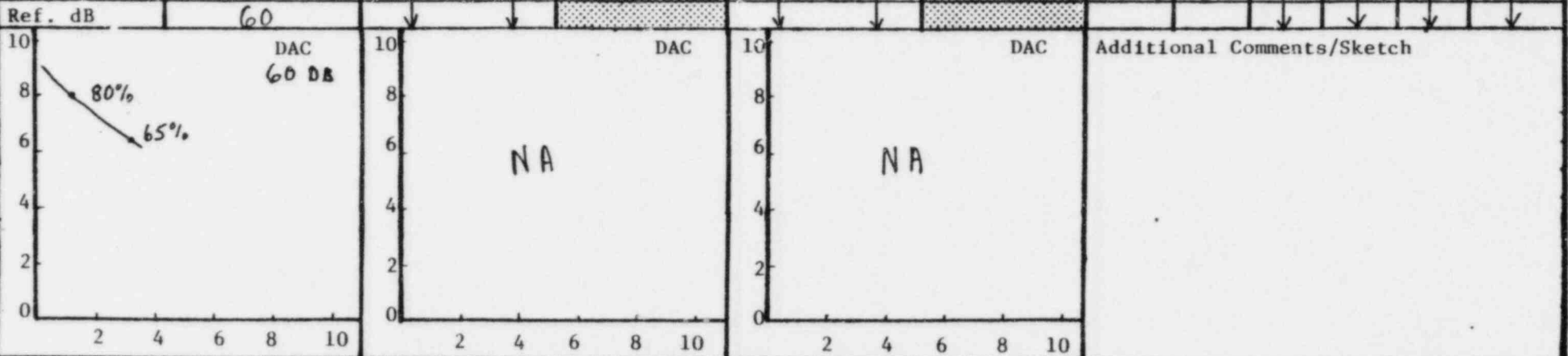
Customer <i>LPIL</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>NA 50</i>	Iso/Drawing No. <i>ZONE 50 REV 2 FC 34 JE</i>
Procedure <i>ISI 2.7 RD FL 3</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>James Lynch LV II</i>	VCR Supervisor <i>Manuel Adams</i>	Date <i>10-7-82</i>
Component/Piping System <i>B-LPSI PUMP SUCTION</i>	Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-123</i>	Couplant: <i>SONO TRACE</i> Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Transducer	0°	45°	60°	Instrument			
S/N	<i>44650</i>	<i>NA</i>	<i>NA</i>	Mfg.	<i>SONIC</i>	Model	<i>MARK I</i>
Size	<i>.25"</i>			S/N	<i>02307E</i>	RepRate	<i>3K</i>
Frequency	<i>5.0 MHz</i>			Reject	<i>OFF</i>	Filter	<i>HI</i>
Beam Angle	<i>0°</i>			Damp	<i>MIN</i>	Coax	<i>G'BNC TO PC</i>
				Freq.	<i>5</i>	Video	<i>NORM</i>

Field Changes:
 Yes No
 If Yes, Number *3*

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1/4T</i>	<i>80%</i>	<i>1.0</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>		<i>NA</i>	<i>NA</i>	<i>NA</i>		<i>7:41</i>	<i>11:05</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4T</i>	<i>65%</i>	<i>3.4</i>														
<i>1T</i>		<i>6.0</i>														



W.R. Martin, ANII 10-8-82



Ultrasonic Examination Report - Continuation Sheet Page of

Customer <i>LPIL</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>NA 50</i>	Iso/Drawing No. <i>ZONE 50 REV 2 FC 3 JE</i>
Procedure <i>ISI 2.7 RO FC 3</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>James West LVII</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-7-82</i>
Component/Piping System <i>B-4 PSI PUMP SECTION</i>	Pipe Size <i>20"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-123</i>	Couplant: Type & Batch # <i>SONOTRACE 40 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>50-048</i>	<i>YES</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>YES</i>		<i>SMOOTH</i>	<i>GROUND</i>	<i>NR1</i>	<i>SAT</i>	
<i>50-052</i>	<i>YES</i>				<i>YES</i>		<i>SMOOTH</i>	<i>GROUND</i>	<i>NR1</i>	<i>SAT</i>	
<i>50-056</i>	<i>YES</i>				<i>YES</i>		<i>SMOOTH</i>	<i>GROUND</i>	<i>NR1</i>	<i>SAT</i>	
<i>50-060</i>	<i>YES</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>YES</i>		<i>SMOOTH</i>	<i>GROUND</i>	<i>NR1</i>	<i>SAT</i>	

M.R. Martin, ANIS 10-8-82



Ultrasonic Examination Report

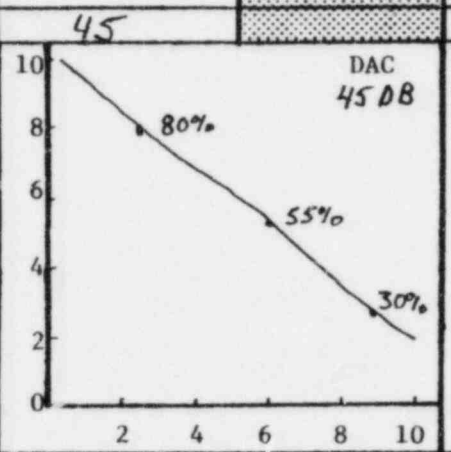
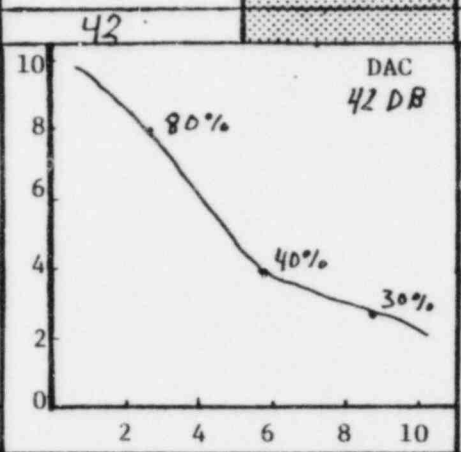
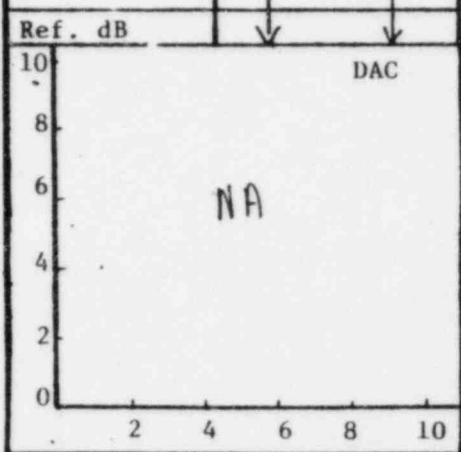
Customer LPIL	Plant WATERFORD	Unit 3	Loop/Zone NA 50	Iso/Drawing No. ZONE 50 REV 2, FC 34JE
Procedure 151 2.7 50 FC 3	Exam Surface O.D.	Examiner/Level James [Signature] LVII	VCR Supervisor Daniel [Signature]	Date 10-7-82
Component/Piping System B-LPSI PUMP SUCTION	Pipe Size 20"	Weld Type BUTT	Cal. Block # UT-123	Couplant: SONOTRACE Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **3**

Transducer	0°	45°	60°	Instrument			
	S/N NA	H25148	NA	Mfr. SONIC	Model MARK I	RepRate 3K	
	Size .25"	2.25 MHz		S/N 05304E	Filter HI	Coax 6' BNC TO MO	
	Frequency	45°		Reject OFF	Damp MIN	Video NORM	
Beam Angle	↓	↓		Freq. 2			

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.0	NA		NA	NA	10.25	207	NA	NA
2T			40%	6.0			55%	6.0								
3T			30%	9.0			30%	9.0								

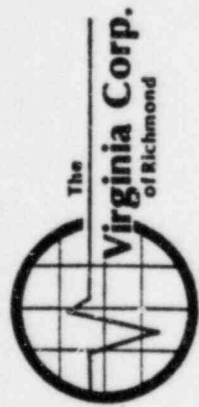


Additional Comments/Sketch

W.R. Martin ANSI 10-8-82

Ultrasonic Examination Report - Continuation Sheet

Page **1** of **1**



Customer LPTL	Plant WATERFORD	Unit 3	Loop/Zone NA 50	Iso/Drawing No. ZONE 50 REV 2 FC 3 4 J E
Procedure ISI-2.7 RD FC 3 O.D	Examiner/Level James Lynch NDE	VCR Supervisor Nanette Dene	Date 10-7-82	
Component/Piping System B-LPSI Pump Section	Pipe Size 20"	Weld Type BUTT	Cal. Block UT-123	Complaint: Type & Batch # Sonotrace 90 8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
50-048	NA	YES	YES	YES	0	*	SMOOTH	GROUND	NRI	SAT	
50-052		YES	YES	YES			SMOOTH	GROUND	NRI	SAT	
50-056		YES	YES	YES			SMOOTH	GROUND	NRI	SAT	
50-060		YES	YES	YES			SMOOTH	GROUND	NRI	SAT	
<p>* INTERMITTENT I.D. GEOMETRY RANGING FROM 50% OF DAL TO 90% OF DAL FROM 55 1/2" TO 18 3/8" TOTAL. CIRCUMFERENCE OF WELD IS 57 1/2". TRANSDUCER POSITION 3/4" FROM G. OF WELD 2 SIDE, 3.0 SNEEP READING. ALSO INTERMITTENT I.D. GEOMETRY UNDER 50% OF DAL BETWEEN 18 3/8" TO 55 1/2"</p>											



M.R. Martin, ANES 10-25-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer <i>LP & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>B 50</i>
Component/Piping System <i>B-LPSI PUMP SUCTION</i>		Examiner/Level <i>Nary Longenecker II</i>	Date <i>10-12-82</i>
Procedure <i>I.S.I. 2.5 R-0</i>	Iso/Drawing No. <i>ZONE 50 R-2.FCA</i>	VCR Supervisor <i>Manil Jensen</i>	Continuation Sheet Attached [] Yes [<input checked="" type="checkbox"/>] No

Equipment

Instrument		Transducer		Calibration	
Mfgr. <i>SONIC</i>	Mfgr. <i>K-B AEROTECH.</i>	Size <i>.25"</i>	Cal. Block <i>UT-120</i>		
Model <i>MARK 1</i>	Serial No. <i>KB2882</i>		Cal. Block		
S/N <i>05304E</i>	Freq. <i>5. MHZ.</i>	Range Cal. <i>.36" @ 5.0</i>			
Reject <i>OFF</i>	Coax. Cable <i>6'</i>		Calibration Checks		
Damp. <i>MIN.</i>	Gain <i>77 dB</i>		<i>CAL. IN 1:45</i>		
Freq. <i>5. MHZ.</i>	Video <i>NORM</i>		<i>CAL. OUT 3:40</i>		
Rep. Rate <i>1K</i>	Couplant <i>SONOTRACE 40 8124</i>				
Filter <i>OFF</i>					
Video <i>NORM</i>					
Couplant <i>SONOTRACE 40 8124</i>					

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>50-045</i>	<i>12</i>	<i>.569"</i>	<i>.590"</i>	<i>.533"</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
<i>50-045</i>	<i>2</i>	<i>.554"</i>	<i>.634"</i>	<i>.518"</i>					
<i>50-045</i>	<i>4</i>	<i>.576"</i>	<i>.612"</i>	<i>.554"</i>					
<i>50-045</i>	<i>6</i>	<i>.576"</i>	<i>.626"</i>	<i>.598"</i>					
<i>50-045</i>	<i>8</i>	<i>.562"</i>	<i>.634"</i>	<i>.540"</i>					
<i>50-045</i>	<i>10</i>	<i>.547"</i>	<i>.576"</i>	<i>.511"</i>					

Sketch/Identification



Ultrasonic Examination Report

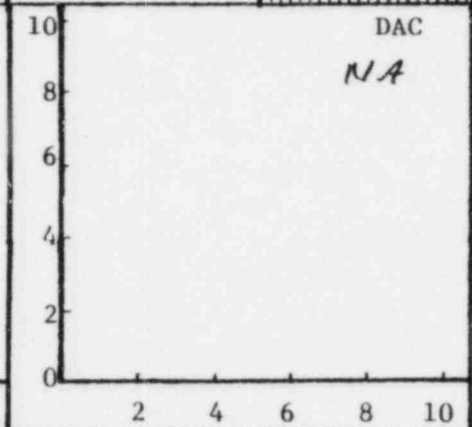
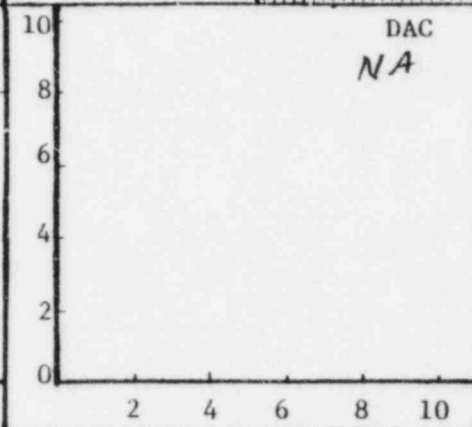
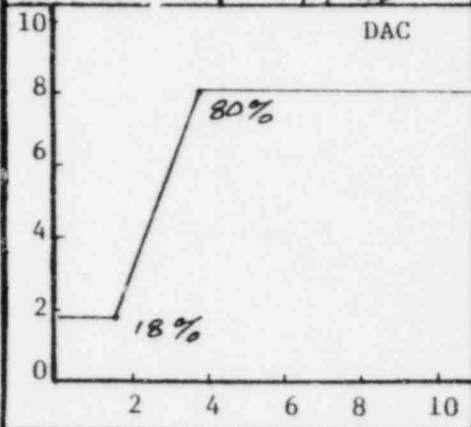
Customer LP & L	Plant WATERFORD	Unit 3	Loop/Zone B 50	Iso/Drawing No. ZONE 50 R-2, FC. 4
Procedure I.S.I. 2.7 R-0, FC. 3	Exam Surface O.D.	Examiner/Level Navy Longenecker II	VCR Supervisor Daniel Dwyer	Date 10-12-82
Component/Piping System B - LPSI PUMP SUCTION	Pipe Size 14"	Weld Type BUTT	Cal. Block UT-120	Couplant: SONOTRACE Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **3**

Transducer	0°	45°	60°	Instrument			
	S/N KB2882	NA	NA	Mfr. SONIC	Model MARK I		
	Size .25" P.I.A.			S/N 05304E	RepRate 1 K		
	Frequency 5. MHZ.			Reject OFF	Filter OFF		
Beam Angle 0°				Damp MIN.	Coax 6'		
				Freq. 5. MHZ.	Video NORM		

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks								
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°		
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out	
1/4 T	18%	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1:45	3:40	NA	NA	NA	NA
3/4 T	80%	3.2																	
1 T	NA	5.0																	
Ref. dB	77 db																		



Additional Comments/Sketch

M.R. Martin, ANEF 10-15-82

Ultrasonic Examination Report



Customer <i>LP & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>B 50</i>	Iso/Drawing No. <i>ZONE 50 R-2, F.C. 4</i>
Procedure <i>ISI 2.7 R-O, F.C. 3</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Navy Longenecker II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-12-82</i>
Component/Piping System <i>B-LPSI PUMP SUCTION</i>	Pipe Size <i>14"</i>	Weld Type <i>BUTT</i>	Cal. Block # <i>UT-120</i>	Couplant: <i>SONOTRACE</i> Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *3*

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	<i>NA</i>	<i>H25148</i>	<i>NA</i>	Mfg.	<i>SONIC</i>	Model	<i>MARK 1</i>
		<i>.25" DIA.</i>		S/N	<i>01930E</i>	RepRate	<i>3K</i>
		<i>1.25 MHZ.</i>		Reject	<i>OFF</i>	Filter	<i>H1</i>
	<i>45°</i>		Damp	<i>MIN.</i>	Coax	<i>6'</i>	
			Freq.	<i>2. MHZ.</i>	Video	<i>NORM</i>	

Calibration 0°

2 & 5 Scan

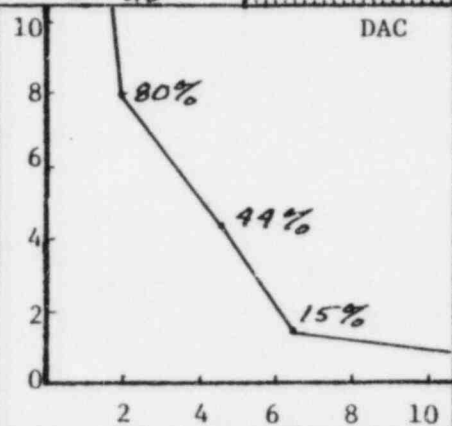
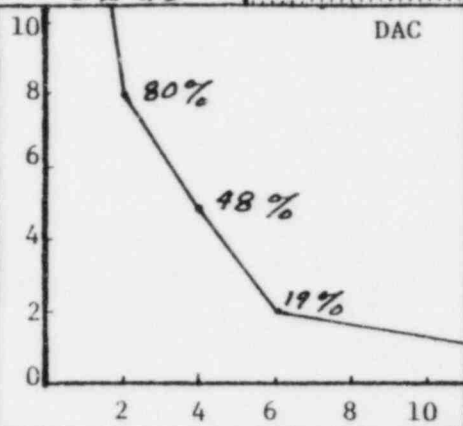
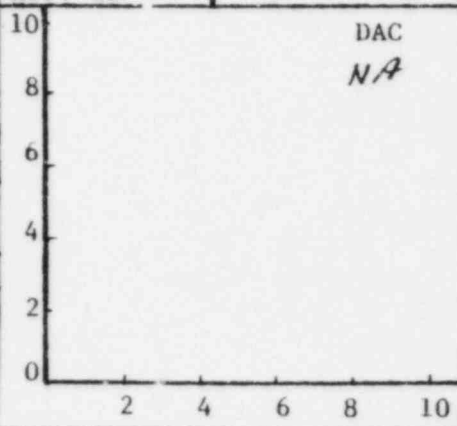
7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks							
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°			
											In	Out	In	Out	In	Out		
<i>1 T</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>2.0</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>2.0</i>	<i>NA</i>	<i>NA</i>								
<i>2 T</i>			<i>48%</i>	<i>3.9</i>			<i>44%</i>	<i>4.4</i>										
<i>3 T</i>			<i>19%</i>	<i>6.0</i>			<i>15%</i>	<i>6.3</i>										

Ref. dB

52 db

51 db



Additional Comments/Sketch

M.R. Martin, ANEI 10-25-82



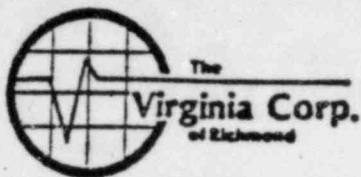
The
Virginia Corp.
of Richmond

Ultrasonic Examination Report - Continuation Sheet

Page of

Customer <i>LP & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>B 50</i>	Iso/Drawing No. <i>ZONE 50 R-2 F.C. 4</i>
Procedure <i>ISI. 2.7 R0, FC.3</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Vary Longenecker II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-12-82</i>
Component/Piping System <i>B LPSI PUMP SUCTION</i>	Pipe Size <i>14"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-120</i>	Couplant: Type & Batch # <i>SONOTRACE 40, 8129</i>

Weld No.	Base Metal Scan	Scan Direction	Inspection Limitations	Surface Condition		Examination Results		Remarks		
				2	5	7 & 8	0		Base Metal	Weld
<i>50-045</i>	<i>NA</i>	<i>YES</i>	<i>YES YES PAR PAR</i>	<i>0°, 7 & 8</i>	<i>SCANS</i>	<i>CLEAN</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT.</i>	
				<i>HAD APPROX. 10% LOSS OF CONTACT DUE TO O.D. WELD GEO.</i>						



M.R. Martin, ANEF 11-3-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP&L	Plant Waterford	Unit # 3	Loop/Zone B/50
Component/Piping System B-LPSI Pump Suction	Examiner/Level Mary A. Johnson II	Date 10-26-82	
Procedure ISI-2.5 Rev. 0 EC. 1	Iso/Drawing No. ZONE 50 Rev. 2 EC. 5	VCR Supervisor Daniel Jensen	Continuation Sheet Attached [] Yes [X] No

Equipment

Instrument		Transducer		Calibration
Mfgr. SONIC	Mfgr. PANAMETRICS	Size .25" DIA	Cal. Block UT-122	
Model MARK I	Freq. 5.0 MHz		Cal. Block	
S/N 03704E	Serial No. 44657		Range Cal. .764	
Reject OFF	Coax. Cable 6' BNC TO PC		Calibration Checks	
Damp. 6	Gain 57 db		IN 12:45	
Freq. 5.0			OUT 3:00	
Rep. Rate 34				
Filter OFF				
Video OFF				
Couplant SONATAC 40 Batch # 8124				

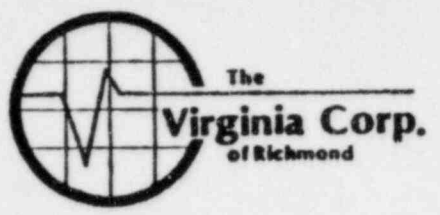
Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
50-072	12	.466"	.359"	.580"	NA	NA	NA	NA	NA
	2	.481"	.366"	.618"					
	4	.504"	.351"	.588"					
	6	.481"	.351"	.595"					
	8	.534"	.351"	.595"					
	10	.496"	.351"	.603"					
50-076	12	.450"	.542"	.359"					
	2	.458"	.611"	.359"					
	4	.504"	.595"	.359"					
	6	.519"	.565"	.351"					
	8	.527"	.595"	.359"					
	10	.488"	.595"	.359"					

Sketch/Identification

M.R. Martin, ANII 11-3-82

Ultrasonic Examination Report



Customer <i>LP-6</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/50</i>	Iso/Drawing No. <i>Zone 50 R.2 FC-5</i>
Procedure <i>ISI-2.7 R.D. FC-4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Mary A. [Signature]</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-26-82</i>
Component/Piping System <i>B-LPSI Pump Suction</i>	Pipe Size <i>18"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-122</i>	Couplant: Type <i>Sono 40</i> Batch No. <i>8124</i>

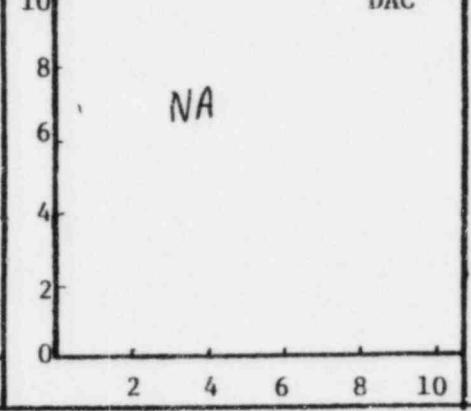
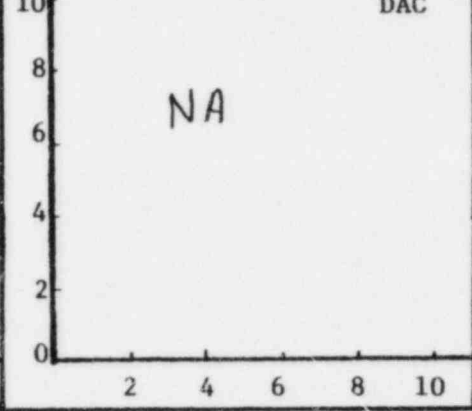
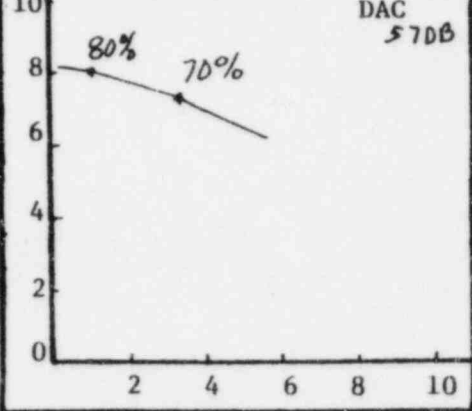
Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *FC-4*

Transducer	0°	45°	60°	Instrument			
S/N	<i>44250</i>	<i>NA</i>	<i>NA</i>	Mfr.	<i>Sonic</i>	Model	<i>Mark I</i>
Size	<i>.25"</i>			S/N	<i>03704E</i>	RepRate	<i>3K</i>
Frequency	<i>5 MHz</i>			Reject	<i>OFF</i>	Filter	<i>OFF</i>
Beam Angle	<i>0°</i>			Damp	<i>6</i>	Coax	<i>GENC-PC</i>
				Freq.	<i>5 MHz</i>	Video	<i>Diff</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1/4T</i>	<i>80%</i>	<i>1.0</i>	<i>NA</i>	<i>NA</i>			<i>NA</i>	<i>NA</i>			<i>12:45</i>	<i>3:00</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4T</i>	<i>70%</i>	<i>3.0</i>														
<i>T</i>	<i>NA</i>	<i>5.0</i>														

Ref. dB *57 DB*



Additional Comments/Sketch

W.R. Martin, ANET 11-3-82

Ultrasonic Examination Report



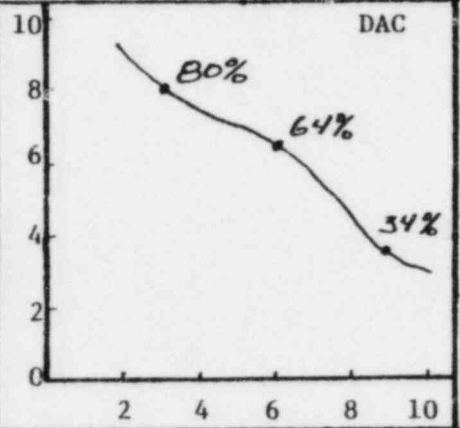
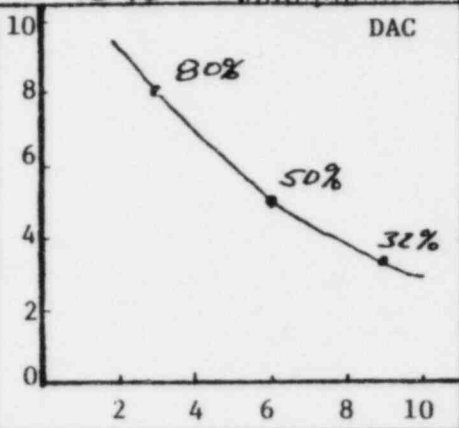
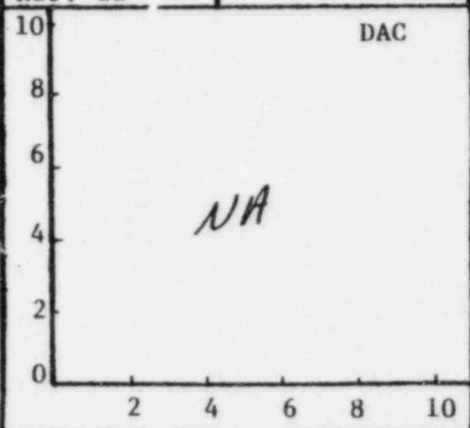
Customer L P & L		Plant WATERFORD	Unit 3	Loop/Zone B/50	Iso/Drawing No. ZONE 50 REV 2 FC.5
Procedure ISI-2.7 R.O FC.4	Exam Surface O. D.	Examiner/Level Michael W. Blew II		VCR Supervisor Daniel Jensen	Date 10-26-82
Component/Piping System B- LPSI PUMP SUCTION		Pipe Size 18"	Weld Type BUTT	Cal. Block UT-122	Couplant: SONOTRACE Type 40 Batch No B124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **4**

Transducer	0°	45°	60°	Instrument			
S/N	NA	H2S1Y8	NA	Mfg.	SONIC	Model	MARK I
Size	↓	.25" OIA	↓	S/N	02307L	RepRate	3 K
Frequency	↓	2.25MHZ	↓	Reject	OFF	Filter	OFF
Beam Angle	↓	45°	↓	Damp	MIN	Coax	C.BNC-MD
				Freq.	2.0	Video	NORM

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks									
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
	NA	NA			NA	NA	NA			NA	NA	NA			9:00	10:25	NA	NA
1T			80%	3.0				80%	3.0									
2T			50%	6.0				64%	6.0									
3T			32%	9.0				34%	9.0									
Ref. dB			43 db					46 db										



Additional Comments/Sketch

W.R. Martin, ANSI 11-3-P2

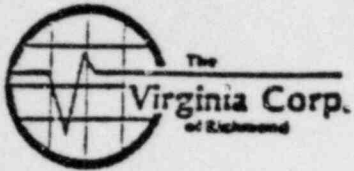


Ultrasonic Examination Report - Continuation Sheet

Page of

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>B/50</i>	Iso/Drawing No. <i>ZONE 50 REVE FCS</i>
Procedure <i>ISI-2.7 R.O FCS</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Michael V Blaw II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-26-82</i>
Component/Piping System <i>B-L PSI PUMP SUCTION</i>	Pipe Size <i>18"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-122</i>	Couplant: Type & Batch # <i>SONOTRACE 40 5/8 B124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>50-072</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>	<i>CLEAN</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>		
<i>50-076</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>	<i>CLEAN</i>	<i>Ground</i>	<i>NI</i>	<i>SAT</i>		



M.R. Martin, ANII 7-7-83
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer L P & L	Plant Waterford	Unit 3	Loop/Zone B/50
Component/Piping System B-LPSI Pump Suction	Examiner/Level Kevin White III	Date 7-6-83	
Procedure ISI-2.5, R.1	Iso/Drawing No. Zone 50, R.5	VCR Supervisor Daniel Jensen	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. Sonic	Mfgr. Aerotech	Size .25"	Cal. Block UT-120	
Model Mark I			Cal. Block	
S/N 02307E	Freq. 2.25 Mhz	Range Cal. .6"		
Reflect off	Serial No. KB-2844		Calibration Checks	
Damp. 4	Coax. Cable 6' BNC-PC		IN: 8:10	
Freq. 2	Gain 85db		OUT: 12:10	
Rep. Rate 3K				
Filter High				
Video Norm				
Complent Sonotrace 40 8225				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
50-015	10	.444"	.384"	.456"	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA					

Sketch/Identification

Reexamined after additional grinding at 10 O'clock position.

W.R. Martin, ANEI 7-7-83

Ultrasonic Examination Report



Customer LP&L	Plant Waterford	Unit 3	Loop/Zone B/50	Iso/Drawing No. Zone 50, R5
Procedure ISI 2.7, R1	Exam Surface O.P.	Examiner/Level Kevin White III	VCR Supervisor Daniel Jensen	Date 7-6-83
Component/Piping System B-LPSI Pump Suction	Pipe Size 14"	Weld Type Butt	Cal. Block UT-120	Couplant: Sonotrace Type 40 Batch No. 8225

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number

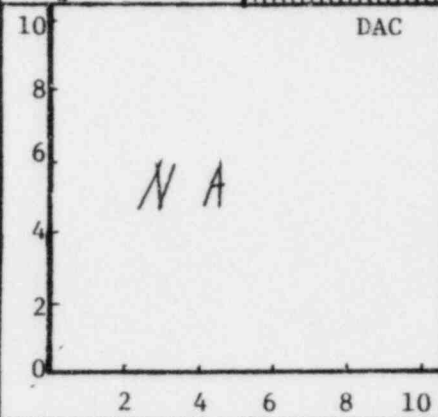
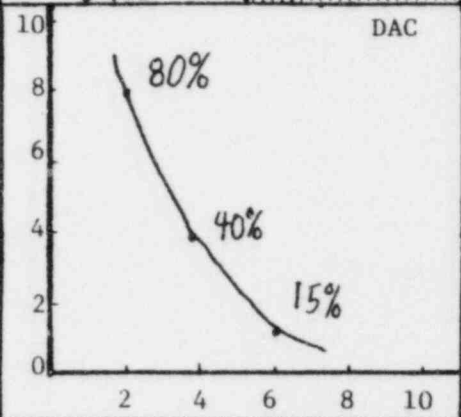
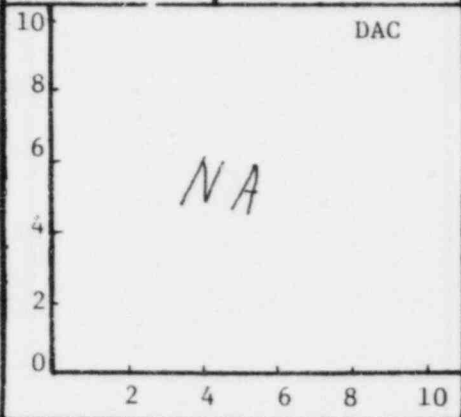
Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	NA	L25/31	NA	Mfr.	Sonic	Model	Mark I
		.25"		S/N	02307E	RepRate	3K
		2.25MHz		Reject	OFF	Filter	High
	45°		Damp	min	Coax	6' BNC-MD	
			Freq.	2 MHz	Video	Norm	

Calibration 0°

2 & 5 Scan

7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		Calibration Checks												
					Scribe Line	50% DAC			Scribe Line	50% DAC	0°		45°		60°								
											In	Out	In	Out	In	Out							
1T	NA	NA	80%	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2T			40%	3.9																			
3T			15%	6.0																			
Ref. dB			59db																				



Additional Comments/Sketch
 Reexamination of indication #3, See continuation sheet.

M. R. Martin A N II 7-7-83

Ultrasonic Examination Report - Continuation Sheet



Customer **L P + L** Plant **Waterford** Unit **3** Loop/Zone **B/50** VCR Supervisor **Daniel L Jensen** Date **7-6-83**
 Procedure **ISI-27R.1** Exam Surface **O.D.** Examiner/Level **Robert White** Cal. Block Couplant: Type & Batch #
B-LPSI Pump Section Pipe Size **1 1/2"** Weld Type **Butt** **UT-120 Sono trace 40, 82a5**

Weld No.	Scan Direction	Base Metal Scan	Scan Direction		Inspection Limitations	Surface Condition		Examination Results		Remarks
			2	5		Base Metal	Weld	UT	Visual	
50-015	PAR	NA	PAR	PAR	Partial - Re-examination of indication # 3 done by Gary Langewieser on 10-4-82.	Smooth	Ground	NRI	Sat	* Re-examination of indication was determined to be metallurgical. Additional grinding was done so further evaluation could be conducted in the first year. Increased gain revealed that the indication was 360° around but of lesser varying amplitude.



Liquid Penetrant
D. Payne ANII 2/15/82
Examination Report

Customer	<u>LP & L</u>	Plant	<u>Waterford</u>	Unit	<u>3</u>	Loop/Zone	<u>2 / 51</u>
Procedure	<u>ISI-3.1 R0, FC2</u>	Examiner/Level	<u>Jamie R Lister II / Stephen R Martin</u>		Date	<u>2-12-82</u>	
Component/Piping System	<u>Shutdown Cooling / Class 2</u>	ISO Drawing No.	<u>Zone 51 R2</u>		VCR Site Supervisor	<u>Daniel Dina</u>	
Material Batch Nos.		Manufacturer	<u>Sherwin</u>		Type	<u>Dubl-Chek</u>	
Penetrant	<u>H7L-015</u>	Developer	<u>IHB6</u>		Remover	<u>112C4</u>	

Weld Number	Comments	PT Results		VT Results	
		NRI	RT	Sat.	Unsat
<u>51-001</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<u>51-002</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<u>51-010</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<u>51-011</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<u>51-012</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

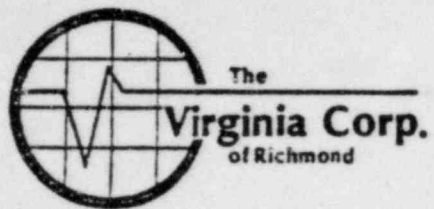


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Liquid Penetrant
Don Payne ANIZ 3/15/82
 Examination Report

Customer LP&L	Plant Water	Unit 3	Loop/Zone 2/51
Procedure ISI - 3.1 RO.F.C.2	Examiner/Level <i>Jamie R. Stone II</i>	Date 2-13-82	
Component/Piping System Shutdown Cooling	ISO Drawing No. ZONE 51 R2	VGR Site Supervisor <i>Daniel Dins</i>	
Material Batch Nos.	Manufacturer Sherwin	Type Dubl-Check	
Penetrant H7L-015	Developer 1486	Remover 11204	

Weld Number	Comments	PT Results		VT Results	
		NRI	RJ	Sat.	Unsat
51-005		✓		✓	
51-006		✓		✓	
51-007		✓		✓	
51-009		✓		✓	

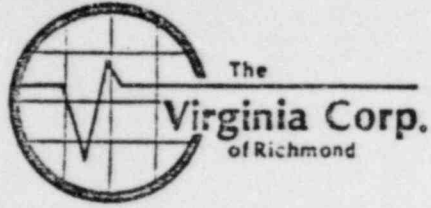


Liquid Penetrant
D. Payne ANII 5/26/82
Examination Report

Customer LP&L	Plant Waterford	Unit III	Loop/Zone 2/51
Procedure ISI 3.1 Rev. 2 FC-2	Examiner/Level Caroly Ann / L-II		Date 5/24-82
Component/Piping System Shutdown Cooling From Loop #2	ISO Drawing No. Zone 51 Rev. 2 FC-0	VCR Supervisor Daniel Gins	

	Manufacturer	Type	Batch No.
Penetrant	SHERWIN [®]	DUBL-CHEK	47-L015
Developer	Sherwin [®]	DUBL-CHEK	129F6
Remover	SHERWIN [®]	DUBL-CHEK	112-C4

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
51-016		✓		✓	
51-017		✓		✓	
51-018		✓		✓	
51-020		✓		✓	



Liquid Penetrant

D. Payne ANEZ 6/2/82
Examination Report

Customer LP/L	Plant Waterford	Unit 3	Loop/Zone 1A/51
Procedure ISI 3.1 RO FC 2	Examiner/Level James W. Wrenn LVII	Date May 29, 1982	
Component/Piping System Shutdown Cooling Loop 2, Class 2	ISO Drawing No. Zone 51 R2 FC 1	VCR Supervisor Daniel J. Jans	

	Manufacturer	Type	Batch No.
Penetrant	Sherwin	Dubl-Check	47L-015
Developer	Sherwin	Dubl-Check	129F6
Remover	Sherwin	Dubl-Check	112C4

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
51-050		✓		✓	
51-078LA50		✓		✓	
51-078LA52		✓		✓	
51-052		✓		✓	
51-054		✓		✓	
51-056		✓		✓	
51-060		✓		✓	
51-062		✓		✓	



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Liquid Penetrant
D. Payne ANIC 6/2/82
Examination Report

Customer: LP & L	Plant: Waterford	Unit: III	Loop/Zone: 2/51
Procedure: ISI 3.1. Revo F.C. 2 <small>TKM 829</small>	Examiner/Level: BARRY HUFF 1. II	Date: 5-29-82 <small>TKM 829</small>	
Component/Piping System: Shutdown Cooling from Loop 2	ISO Drawing No: ZONE # 51 REV. 2 FC X <small>TKM 829</small>	VCR Supervisor: Daniel Jones	

	Manufacturer	Type	Batch No.
Penetrant	SHERWIN	DUBL-CHEK	A1L015
Developer	SHERWIN	DUBL-CHEK	129-F-6
Remover	SHERWIN	DUBL-CHEK	112-C-4

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT	UNSAT.
51-025		✓		✓	
51-026		✓		✓	
51-027		✓		✓	
51-028		✓		✓	
51-046		✓		✓	
51-048		✓		✓	
51-071		✓		✓	
51-073		✓		✓	
51-074		✓		✓	
51-075-LA-74		✓		✓	



The Virginia Corp. of Richmond

Liquid Penetrant
D. Payne ANZI 6/8/82
Examination Report

Customer *LP & L* Plant *WATERFORD* Unit *3* Loop/Zone *2 51*

Procedure *I.S.I. 3.1 R-0, F.C.-2* Examiner/Level *Larry Longenecker II* Date *6-5-82*

Component/Piping System *SHUTDOWN COOLING FROM LOOP 2* ISO Drawing No. *ZONE 51 R-2, F.C.-1* VCR Supervisor *Daniel Jones*

	Manufacturer	Type	Batch No.
Penetrant	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>47L-015</i>
Developer	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>129-F6</i>
Remover	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>112-C9</i>

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>51-043</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>51-044</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



Liquid Penetrant
D. Payne ANII 6/11/82
 Examination Report

Customer *LP & L* Plant *Waterford* Unit *3* Loop/Zone *2 51*

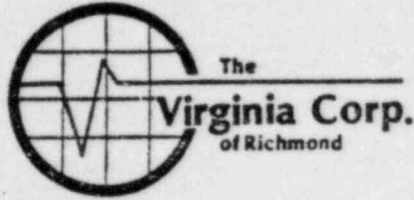
Procedure *ISI 3.1 Rev 0 F.C. 2* Examiner/Level *Clitus Frank II* Date *6-9-82*

Component/Piping System *Shutdown Cooling from Loop 2* ISO Drawing No. *Zone 51 Rev 2 F.C. 1* VCR Supervisor *Wanu Jones*

	Manufacturer	Type	Batch No.
Penetrant	<i>Sherwin</i>	<i>Dubl-Check</i>	<i>47L-015</i>
Developer	<i>Sherwin</i>	<i>Dubl-Check</i>	<i>129-F6</i>
Remover	<i>Sherwin</i>	<i>Dubl-Check</i>	<i>225-B4</i>

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.

<i>51-058</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>51-076</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



Liquid Penetrant
D. Payne ANZI 6/11/82
Examination Report

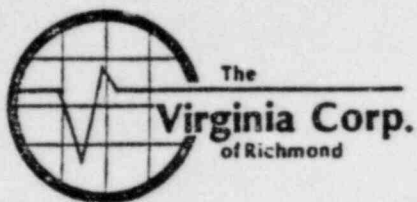
Customer	LP+L	Plant	WATERFORD	Unit	3	Loop/Zone	2 51
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Procedure	ISI 3.1 REV-0 FC-2	Examiner/Level	Robert W Anderson II	Date	6-10-82
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Component/Piping System	SHUTDOWN COOLING FARM LOOP 2 CLASS 2	ISO Drawing No.	ZONE 51 REV-2 FC-1	VCR Supervisor	Daniel Jones
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	Manufacturer	Type	Batch No.	
Penetrant	SHERWIN	DUBL-CHEK	47L-015	
-Developer	SHERWIN	DUBL-CHEK	129-F6	
Remover	SHERWIN	DUBL-CHEK	225-B4	

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
51-029		✓		✓	
51-040		✓		✓	
51-041		✓		✓	
51-079 A71		✓		✓	

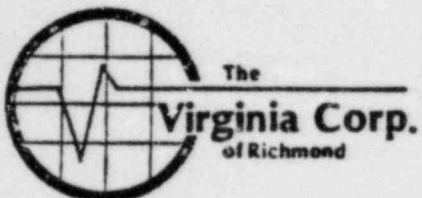


Liquid Penetrant
D. Payne ANZI 6/14/82
Examination Report

Customer LP & L	Plant Waterford	Unit 3	Loop/Zone 2 51
Procedure ISI 3.1 Rev. 0 F.C. 2	Examiner/Level (Chabus) Frank II		Date 6-11-82
Component/Piping System Shutdown Cooling from loop 2	ISO Drawing No. Zone 51 Rev. 2 F.C. 1	VCR Supervisor Manuel Jones	

	Manufacturer	Type	Batch No.	
Penetrant	Sherwin	Dubl-Check	47L-015	
Developer	Sherwin	Dubl-Check	129-F6	
Remover	Sherwin	Dubl-Check	225-B4	

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
51-077 LA-21		✓		✓	
51-077 LA-22		✓		✓	
51-WS-3-1		✓		✓	
51-WS-3-2		✓		✓	



Liquid Penetrant
R. Payne ANII 6/16/82
 Examination Report

Customer <i>LP-L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>2 51</i>
Procedure <i>ISI 3.1 REV-0 FC-2</i>	Examiner/Level <i>Robert W Anderson II</i>	Date <i>6-11-82</i>	
Component/Piping System <i>SHUTDOWN COOLING FROM LOOP 2, CLASS 2</i>	ISO Drawing No. <i>ZONE 51 REV-2 FC-1</i>	VCR Supervisor <i>Wardell Jones</i>	

	Manufacturer	Type	Batch No.
Penetrant	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>47L-015</i>
Developer	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>129-F6</i>
Remover	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>225-B4</i>

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>51-030</i>	<i>SEE ATTACHED SHEET</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>51-031</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>51-032</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>51-033</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

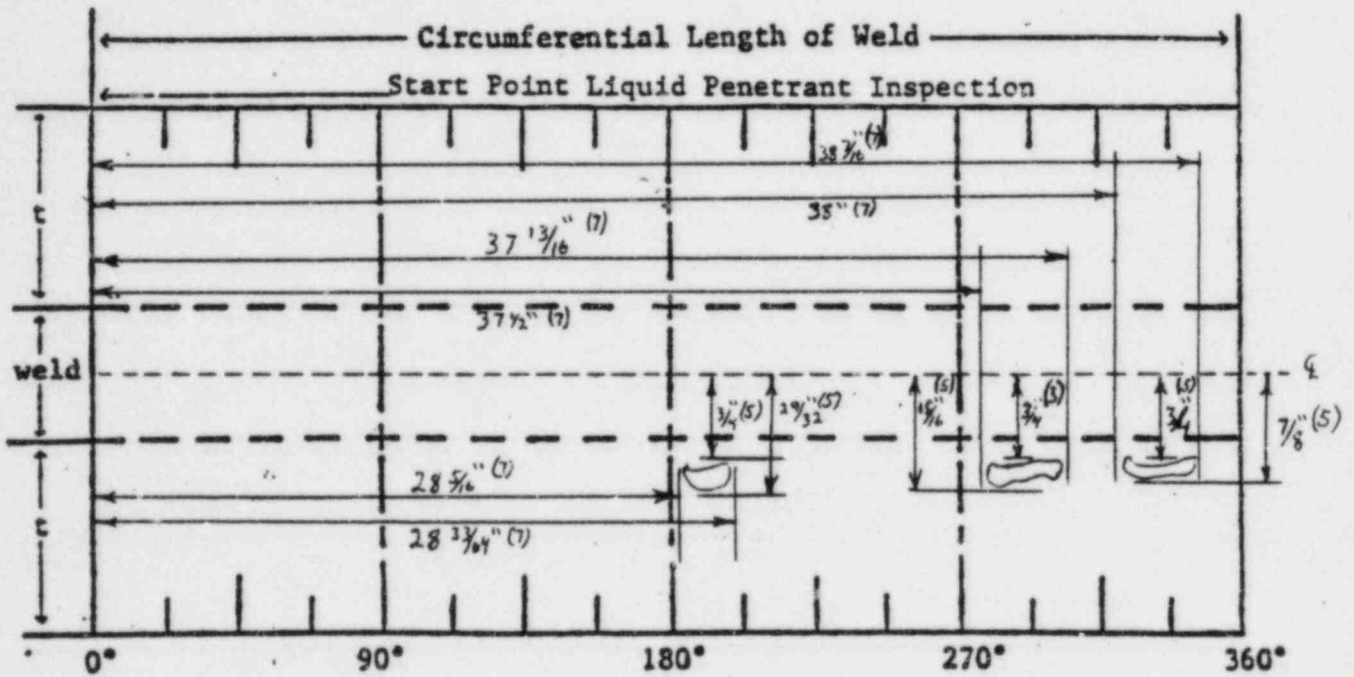


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Liquid Penetrant

D. PAYLANI 6/16/82
Indication Record

Customer <i>LP 9L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop / Zone <i>2 51</i>
Procedure <i>ISI 3.1 REV-0 FC-2</i>	Examiner/Level <i>Robert W Anderson II</i>		Date <i>6-11-82</i>
Component/Piping System <i>SHUTDOWN COOLING FROM LOOP 2 CLASS 2</i>		VCR Site Supervisor <i>[Signature]</i>	
Weld No. <i>51-030</i>	ISO/Drawing No. <i>ZONE 51 REV-2 FC-1</i>		



Remarks



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Liquid Penetrant
D. Payne **ANIZ** 7/19/82
Examination Report

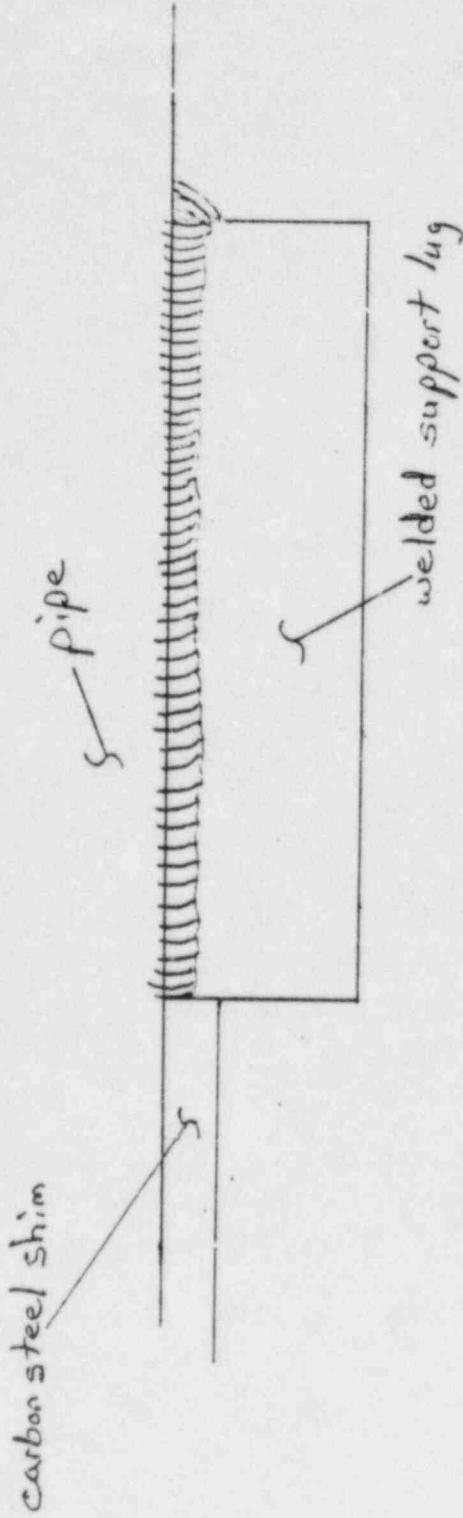
Customer **LP&L** Plant **Waterford** Unit **3** Loop/Zone **2/51**

Procedure **CC7 3** Examiner/Level **Chris E. Zupard II** Date **7-17-82**

Component/Piping System **Shutdown Cooling, Class 2** ISO Drawing No. **Zone 51, R. 2, F.C. 1** VGR Supervisor **Denise Jones**

	Manufacturer	Type	Batch No.	
Penetrant	Sherwin Inc	Dubl-chek	474-015	
Developer	Sherwin Inc	Dubl-chek	129 F6	
Remover	Sherwin Inc	Dubl-chek	225 BY	

Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
51-WS-4-1		✓		✓	
51-WS-4-2	Partial examination See attached page	✓		✓	
51-WS-4-3		✓		✓	
51-WS-4-4		✓		✓	



Partial exam due to bleedout caused by carbon
Steel shim positioned flush with support lug.



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Liquid Penetrant
D. Payne ANIL 7/27/82
Examination Report

Customer <i>L P & L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>2/51</i>
Procedure <i>IST 3.1 R.O. FC.3</i>	Examiner/Level <i>Chris E. Foyard II</i>	Date <i>7-23-82</i>	
Component/Piping System <i>Shut-down Cooling</i>	ISO Drawing No. <i>Zone 51, R. 2, FC. 2</i>	VCR Supervisor <i>Manuel D. Jones</i>	

	Manufacturer	Type	Batch No.
Penetrant	<i>Sherwin Inc</i>	<i>Dubl-check</i>	<i>47L-015</i>
Developer	<i>Sherwin Inc</i>	<i>Dubl-check</i>	<i>129 F6</i>
Remover	<i>Sherwin Inc</i>	<i>Dubl-check</i>	<i>225 A4</i>

Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>51-WS-1-1</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>51-WS-1-2</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>51-WS-1-3</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>51-WS-1-4</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>51-WS-2-1</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>51-WS-2-2</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>51-WS-2-3</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>51-WS-2-4</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



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W.R. Martin, ANII 11-9-82
Liquid Penetrant

Examination Report

Customer LP&H	Plant Waterford	Unit 3	Loop/Zone 2/51
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Procedure ISI 3.1 R.O. F.C. 4	Examiner/Level Chris E. Foyall II	Date 11-5-82
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Component/Piping System Shutdown cooling-class 2	ISO Drawing No. Zone 51, R.2, F.C.6	VCR Supervisor <i>Daniel Jensen</i>
--	---	--

	Manufacturer	Type	Batch No.
Penetrant	Sherwin	Dubl-check	474-015
Developer	Sherwin	Dubl-check	117 KG
Remover	Sherwin	Dubl-check	225 84

Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
51-030	Reexamined after repair	✓		✓	

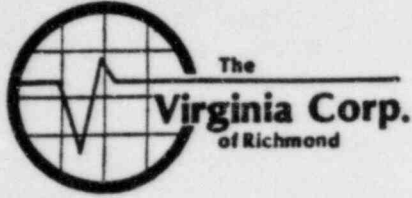


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W.R. Martin, ANIP 12-6-82
Liquid Penetrant

Examination Report

Customer KPIL	Plant WATERFORD	Unit 3	Loop / Zone 2 51		
Procedure ISI 3.1 REV O FC 4	Examiner/Level Chris E. Forzani II		Date 11-11-82		
Component/Piping System SHUTDOWN COOLING FROM LOOP 1, CLASS 2	ISO Drawing No. ZONE 51 REV 2 FC 28	VCR Supervisor Daniel Jensen			
	Manufacturer	Type	Batch No.		
Penetrant	SHERWIN	DUAL-CHEK	476 015		
Developer	SHERWIN	DUAL-CHEK	129 F6		
Remover	SHERWIN	DUAL-CHEK	225 B4		
Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
51-014-900	RE-EXAMINED DUE TO REMOVAL AND REPLACEMENT OF NEW WELD	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



M.R. Martin, ANES 12-6-82
Liquid Penetrant

Examination Report

Customer LP+L		Plant Waterford		Unit 3	Loop / Zone 2 / 51	
Procedure ISI-3.1 R.O F.C.4		Examiner/Level Robert J. Overstreet II			Date 11-13-82	
Component/Piping System Shutdown Cooling, Loop 2		ISO Drawing No. ZONE 51 R. 2 F.C. 78		VCR Supervisor Kevin White		
				PT Results		
Manufacturer		Type		Batch No.		[Shaded Area]
Penetrant		Dobl-Check		474015		
Developer		Dobl-Check		129F6		
Remover		Dobl-Check		22584		
Weld/Item Number		Comments		NRI	RI	VT Results SAT. UNSAT.
51-018-900				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>



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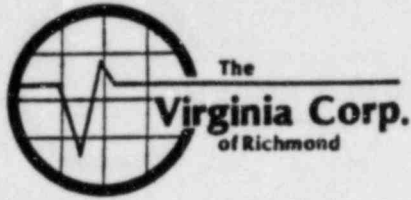
W.R. Martin, ANIE 12-6-82
Liquid Penetrant

Examination Report

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop / Zone <i>2 / 51</i>
Procedure <i>ISI-3.1 REV. 0 F.C. 4</i>	Examiner / Level <i>F. Bl. P. Breen Lv II</i>	Date <i>12-2-82</i>	
Component / Piping System <i>SHUTDOWN COOLING FROM LOOP 2</i>	ISO Drawing No. <i>ZONE 51 REV. 2 F.C. 8</i>	VCR Supervisor <i>Kevin White</i>	

	Manufacturer	Type	Batch No.
Penetrant	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>47L-015</i>
Developer	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>129-F6</i>
Remover	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>110-H4</i>

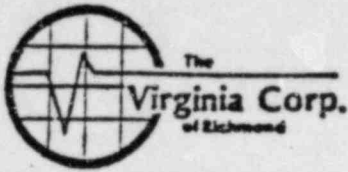
Weld / Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNGAT.
<i>51-075 LA-076</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



M.R. Martin, ANSS 1-11-83
Liquid Penetrant

Examination Report

Customer <i>LPEL</i>		Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>2/51</i>	
Procedure <i>ISI 3.1, R.O, F.C. 4</i>		Examiner/Level <i>Chris E. Farrell II</i>		Date <i>12-20-82</i>	
Component/Piping System <i>Shutdown Cooling, Class 2</i>		ISO Drawing No. <i>Zone 51, R.2, F.C. 8</i>		VCR Supervisor <i>Ronald J. Tolson</i>	
	Manufacturer	Type	Batch No.		
Penetrant	<i>Sherwin</i>	<i>Dubl-check</i>	<i>476-015</i>		
Developer	<i>Sherwin</i>	<i>Dubl-check</i>	<i>129 E6</i>		
Remover	<i>Sherwin</i>	<i>Dubl-check</i>	<i>225 B4</i>		
Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>51-WS-9-1</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>51-WS-9-2</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



W.R. Martin, ANTI 10-26-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer L P & L	Plant WATERFORD	Unit 3	Loop/Zone NA/51
Component/Piping System SHUTDOWN COOLING, Loop 2	Examiner/Level Michael W Blum II	Date 10-14-82	
Procedure 151-2.5 R.O	Iso/Drawing No. ZONE 51 R.2 FC 4	VCR Supervisor Daniel Jensen	Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. SONIC	Mfgr. AEROTECH	Size .50" DIA	Cal. Block UT-119	
Model MARK I	Freq. 5.0 MHZ	Cal. Block		
S/N 0105BE	Serial No. KB2897	Range Cal. 1.875"		
Reject OFF	Coax. Cable 6' BNC-PC	Calibration Checks		
Damp. MIN	Gain 64 db	IN 8:20		
Freq. 5.0	OUT 10:45			
Rep. Rate 3K	IN 12:08			
Filter OFF	OUT 4:00			
Video NORM				
Couplant SQUOTRACE 407N B124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
51-025	12	1.163"	1.238"	1.200"	51-027	12	1.313"	1.313"	1.181"
51-025	2	1.125"	1.313"	1.181"	51-027	2	1.219"	1.425"	1.181"
51-025	4	1.163"	1.238"	1.181"	51-027	4	1.313"	1.500"	1.200"
51-025	6	1.144"	1.350"	1.163"	51-027	6	1.313"	1.276"	1.219"
51-025	8	1.163"	1.425"	1.200"	51-027	8	1.313"	1.313"	1.200"
51-025	10	1.144"	1.313"	1.200"	51-027	10	1.276"	1.276"	1.181"
51-026	12	1.313"	1.181"	1.425"	51-028	12	1.313"	1.200"	1.350"
51-026	2	1.331"	1.200"	1.331"	51-028	2	1.163"	1.181"	1.406"
51-026	4	1.313"	1.238"	1.238"	51-028	4	1.276"	1.200"	1.538"
51-026	6	1.313"	1.238"	1.369"	51-028	6	1.088"	1.163"	1.388"
51-026	8	1.294"	1.238"	1.256"	51-028	8	1.125"	1.125"	1.276"
51-026	10	1.331"	1.200"	1.294"	51-028	10	1.163"	1.238"	1.350"

Sketch/Identification



Ultrasonic Data Sheet

M.R. Martin for ANIF 10/26/82

Thickness Measurement

Continuation Page 2 of 2

Customer <i>L P & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>NA / 51</i>
Component/Piping System <i>SHUTDOWN Cooling Loop 2</i>		Examiner/Level <i>Michael W. Blaw II</i>	Date <i>10-14-82</i>
Procedure <i>ISI-2.5 R.O</i>		Iso/Drawing No. <i>ZONE 51 R.2 FC 4</i>	VCR Supervisor <i>Daniel Jones</i>

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
51-029	12	1.350"	1.388"	1.125"	NA	NA	NA	NA	NA
51-029	2	1.219"	1.313"	1.125"					
51-029	4	1.200"	1.369"	1.125"					
51-029	6	1.181"	1.556"	1.125"					
51-029	8	1.200"	1.388"	1.125"					
51-029	10	1.238"	1.313"	1.125"					
51-030	12	1.313"	1.144"	1.313"					
51-030	2	1.276"	1.144"	1.276"					
51-030	4	1.294"	1.181"	1.350"					
51-030	6	1.313"	1.200"	1.500"					
51-030	8	1.294"	1.200"	1.481"					
51-030	10	1.238"	1.163"	1.276"					
/									

Sketch/Identification



The
Virginia Corp.
of Richmond

Ultrasonic Examination Report

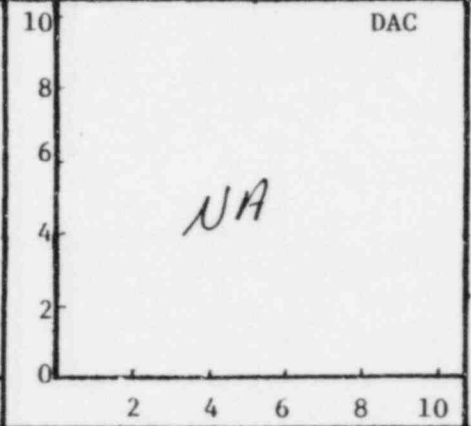
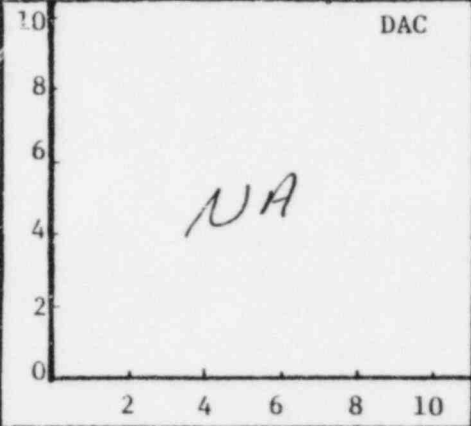
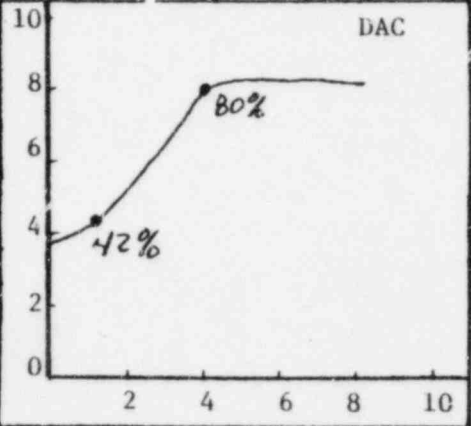
Customer L P & L	Plant WATERFORD	Unit 3	Locop/Zone NA/51	Iso/Drawing No. ZONE 51 REV 2 FC 4
Procedure ISI-2.7 R.O FC 3	Exam Surface O. D.	Examiner/Level Michael W. Rlew II	VCR Supervisor <i>Daniel Jones</i>	Date 10-14-82
Component/Piping System SHUTDOWN Cooling, Loop 2		Pipe Size 14"	Weld Type BUTT	Cal. Block UT-119
			Couplant: SONOTRACE Type 40	Batch No 8124

Continuation Sheet Attached
Yes No

Field Changes:
Yes No
If Yes, Number **3**

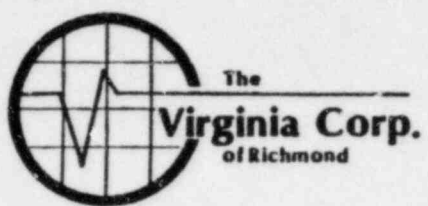
Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	KB2897	NA	NA	Mfr.	SONIC	Model	MARK I
	5.0 DIA			S/N	0105BE	RepRate	3 K
	5.0 MHz			Reject	OFF	Filter	OFF
	0°			Damp	MIN	Coax	6' BNC-PC
				Freq.	5.0	Video	NORM

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks							
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8:20	10:45	NA	NA	NA	NA
1/4 T	42%	1.2											12:08	4:00				
3/1 T	80%	4.0																
1 T		6.0																
Ref. dB	64 db																	



Additional Comments/Sketch

M.R. Martin, ANSI 10-26-82



Ultrasonic Examination Report - Continuation Sheet

Customer <i>L P & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>NA/51</i>	Iso/Drawing No. <i>ZONE 51 REV2 FC 4</i>
Procedure <i>ISI-2.7 R.O FC.3</i>	Exam Surface <i>O. D.</i>	Examiner/Level <i>Michael W. Blum II</i>	VCR Supervisor <i>Dani St. Jans</i>	Date <i>10-14-82</i>
Component/Piping System <i>Shutdown, Cooling, Loop</i>	Pipe Size <i>14"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-119</i>	Couplant: Type & Batch # <i>SONOTRACE 40 1/2 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
51-025	YES	NA	NA	NA	PAR	PARTIAL DUE TO WELD CROWN APPROX. 10% LOSS OF CONTACT AT TOE OF WELD	CLEAN	Ground	NI	SAT	
51-027	YES	NA	NA	NA	PAR	PARTIAL DUE TO WELD CROWN APPROX 5% LOSS OF CONTACT AT TOE OF WELD	CLEAN	Ground	NI	SAT	
51-028	YES	NA	NA	NA	PAR	PARTIAL DUE TO WELD CROWN APPROX 5% LOSS OF CONTACT AT TOE OF WELD	CLEAN	Ground	NI	SAT	
51-029	PAR	NA	NA	NA	PAR	SEE ATTACHED SHEET	CLEAN	Ground	NI	SAT	
51-030	YES	NA	NA	NA	PAR	PARTIAL DUE TO WELD CROWN APPROX 5% LOSS OF CONTACT AT TOE OF WELD	CLEAN	Ground	NI	SAT	



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PAGE 3 OF 3

TO NA

SUBJECT SHUTDOWN COOLING
LOOP 2, PARTIAL.

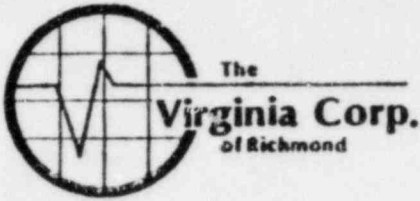
WELD 51-029*

DUE TO RESTRAINT I HAD A PARTIAL ON THE:
Z SIDE FROM 10" TO 13" AND FROM 32³/₄" TO 35³/₄"
S SIDE FROM 7¹/₂" TO 15¹/₄", FROM 20¹/₂" TO 25¹/₂" AND
FROM 30" TO 37³/₄".

I ALSO HAD A PARTIAL DUE TO WELD CROWN APPROXIMATELY
10% LOSS OF CONTACT AT TOE OF WELD

* ALL MEASUREMENTS TAKEN IN THE CLOCKWISE
DIRECTION (? DIRECTION)

SIGNED Michael W Blaw



Ultrasonic Examination Report

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>2/51</i>	Iso/Drawing No. <i>Zone 51 R-2 F.C.4</i>
Procedure <i>ISI 2.7 R OF C-3</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Nary Longenecker II</i>	VCR Supervisor <i>Daniel Jones</i>	Date <i>10-14-82</i>
Component/Piping System <i>Shutdown Cooling Loop 2</i>	Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-119</i>	Couplant: <i>Sonotrace</i> Type: <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *3*

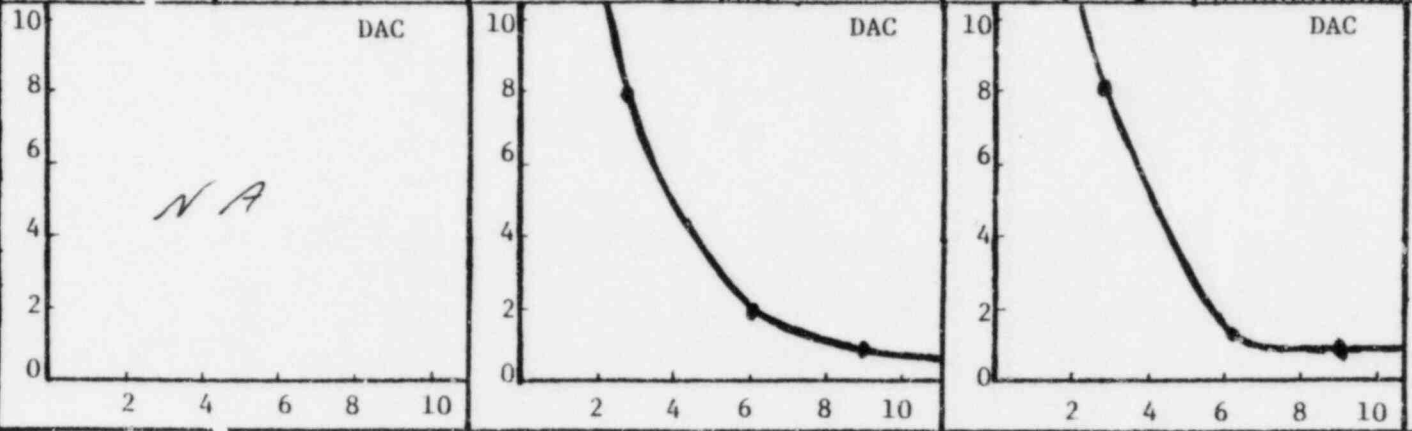
Transducer	0°	45°	60°	Instrument			
S/N	<i>NA</i>	<i>607152</i>	<i>NA</i>	Mfr.	<i>Sonic</i>	Model	<i>Mark I</i>
Size		<i>.50"</i>		S/N	<i>01930E</i>	RepRate	<i>3K</i>
Frequency		<i>2.25MHz</i>		Reject	<i>off</i>	Filter	<i>H1</i>
Beam Angle		<i>45°</i>		Damp.	<i>Min</i>	Coax	<i>6' BNC-MB</i>
				Freq.	<i>2 MHz</i>	Video	<i>Norm</i>

Calibration 0°

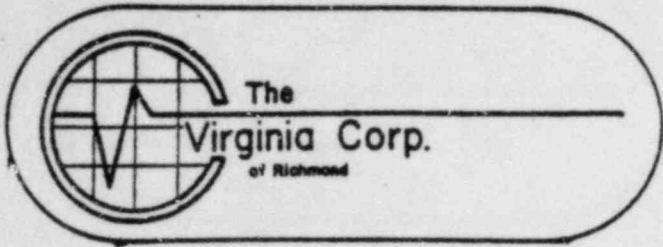
2 & 5 Scan

7 & 8 Scan

Calibration Reflector Location	Signal Amp.	Sweep	Sound Entry Point To:				Signal Amp.	Sweep	Sound Entry Point To:				Calibration Checks					
			Scribe Line		50% DAC				Scribe Line		50% DAC		0°		45°		60°	
			In	Out	In	Out			In	Out	In	Out	In	Out				
<i>1T</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3.0</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3.0</i>	<i>NA</i>	<i>NA</i>					<i>9:00</i>	<i>11:00</i>	<i>NA</i>	<i>NA</i>
<i>2T</i>			<i>20%</i>	<i>6.0</i>			<i>13%</i>	<i>6.1</i>							<i>1:45</i>	<i>2:50</i>		
<i>3T</i>			<i>13%</i>	<i>9.0</i>			<i>11%</i>	<i>9.2</i>										



Additional Comments/Sketch



The
Virginia Corp.
of Richmond

DATE 10-14-82

PAGE OF

TO _____

SUBJECT INSPECTION LIMITATIONS
& REMARKS

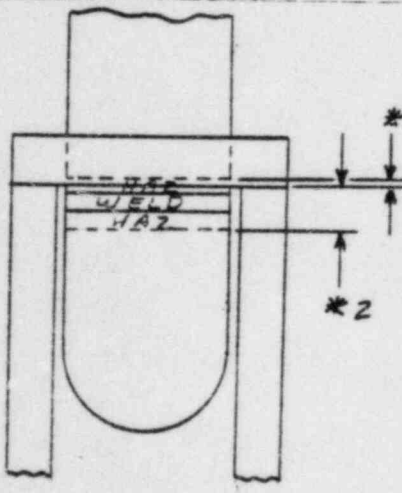
WELD NO. 51-025 7 & 8 SCANS HAD A LOSS OF
APPROX. 10% CONTACT DUE TO
O.D. WELD GEO.

WELD NO. 51-027 7 & 8 SCANS HAD A LOSS OF
APPROX. 5% CONTACT DUE TO
O.D. WELD GEO.

WELD NO. 51-028 7 & 8 SCANS HAD A LOSS OF
APPROX. 5% CONTACT DUE TO
O.D. WELD GEO.

O.D. REFLECTOR CAUSED BY
I.D. BEVEL NOTICED IN THE 5
SCAN FROM 5 3/4" TO 15 1/8" IN THE
7 DIRECTION 2 1/8" (5 SIDE) @ 6.2 SW.

WELD NO. 51-029 THE FOLLOWING LIMITATIONS ARE
DUE TO RESTRAINT CONFIGURATION
AROUND INSPECTION AREA



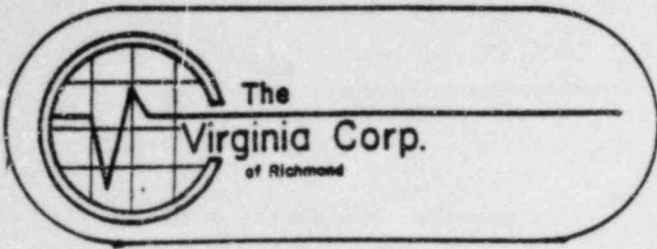
2 SCAN 9 3/4" TO 12 1/4" & 32" TO 35"
5 SCAN 8" TO 14 1/2", 20 1/2" TO 24"
& 30" TO 36 1/2"

THE FOLLOWING NOTES ARE FOR
AREA'S MISSED IN 7 & 8 LOCATIONS

* 1 MISSING 1/2" OF FAR HAZ
(HAZ = 1") ON THE 5 SIDE

* 2 MISSING WELD & HAZ
ON THE 2 SIDE

SIGNED Gary Longenecker



DATE 10-14-92

PAGE OF

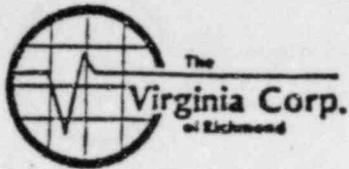
TO _____

SUBJECT INSPECTION LIMITATIONS

WELD NO. 51-029 7 SCAN, * 1 8 $\frac{1}{4}$ " TO 16 $\frac{1}{4}$ "
* 2 9 $\frac{3}{4}$ " TO 13 $\frac{1}{2}$ ", * 1 21" TO 25 $\frac{3}{4}$ "
* 2 32 $\frac{1}{2}$ " TO 36 $\frac{1}{2}$ " & * 1 30 $\frac{1}{2}$ " TO 38 $\frac{1}{4}$ "
8 SCAN, * 1 6 $\frac{1}{4}$ " TO 14"
* 2 8" TO 12 $\frac{1}{4}$ ", * 1 18 $\frac{3}{4}$ " TO 23 $\frac{5}{8}$ "
* 2 30 $\frac{3}{4}$ " TO 34 $\frac{1}{2}$ ", * 1 28 $\frac{1}{4}$ " TO 36"

WELD NO. 51-030 7 & 8 SCANS HAD A LOSS OF
APPROX. 5% CONTACT DUE TO
O. D. WELD GEO.

SIGNED Nary Longenecker



M.R. Martin, ANTF 10/25/82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit # <i>3</i>	Loop/Zone <i>NA/51</i>
Component/Piping System <i>Shutdown Cooling from Loop 2</i>		Examiner/Level <i>Anthony A. Patek II</i>	Date <i>10-18-82</i>
Procedure <i>ISI-2.5 Rev. 0 FC. 1</i>	Iso/Drawing No. <i>ZONE 51 Rev. 2 FC. 4</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration	
Mfgr. <i>SONIC</i>	Mfgr. <i>PANAMETRICS</i>	Size <i>1/2"</i>	Cal. Block <i>UT-119</i>		
Model <i>MARK II</i>	Freq. <i>3.5 MHz</i>	Cal. Block			
S/N <i>02307E</i>	Serial No. <i>41874</i>	Range Cal. <i>1.607"</i>			
Reject <i>off</i>	Coax. Cable <i>6' BNC TO PC</i>	Calibration Checks			
Damp. <i>MIN</i>	Gain <i>45 db</i>	<i>IN 8:35</i>			
Freq. <i>2 MHz</i>		<i>OUT 11:45</i>			
Rep. Rate <i>3K</i>		<i>IN 12:55</i>			
Filter <i>off</i>		<i>OUT 3:22</i>			
Video <i>Norm</i>					
Couplant <i>SONATALL 40 SN 8124</i>					

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>51-004</i>	<i>12</i>	<i>1.141"</i>	<i>*</i>	<i>1.285"</i>	<i>51-010</i>	<i>12</i>	<i>1.141"</i>	<i>1.414"</i>	<i>1.237"</i>
	<i>2</i>	<i>1.125"</i>	<i>*</i>	<i>1.157"</i>		<i>2</i>	<i>1.125"</i>	<i>1.398"</i>	<i>1.221"</i>
	<i>4</i>	<i>1.125"</i>	<i>*</i>	<i>1.221"</i>		<i>4</i>	<i>1.237"</i>	<i>1.350"</i>	<i>1.205"</i>
	<i>6</i>	<i>1.141"</i>	<i>*</i>	<i>1.301"</i>		<i>6</i>	<i>1.157"</i>	<i>1.398"</i>	<i>1.189"</i>
	<i>8</i>	<i>1.173"</i>	<i>*</i>	<i>1.173"</i>		<i>8</i>	<i>1.109"</i>	<i>1.430"</i>	<i>1.189"</i>
	<i>10</i>	<i>1.109"</i>	<i>*</i>	<i>1.157"</i>		<i>10</i>	<i>1.173"</i>	<i>1.575"</i>	<i>1.221"</i>
<i>51-009</i>	<i>12</i>	<i>1.157"</i>	<i>1.221"</i>	<i>*</i>	<i>51-011</i>	<i>12</i>	<i>1.285"</i>	<i>1.237"</i>	<i>1.557"</i>
	<i>2</i>	<i>1.189"</i>	<i>1.221"</i>	<i>*</i>		<i>2</i>	<i>1.301"</i>	<i>1.269"</i>	<i>1.446"</i>
	<i>4</i>	<i>1.189"</i>	<i>1.189"</i>	<i>*</i>		<i>4</i>	<i>1.333"</i>	<i>1.285"</i>	<i>1.366"</i>
	<i>6</i>	<i>1.189"</i>	<i>1.157"</i>	<i>*</i>		<i>6</i>	<i>1.350"</i>	<i>1.269"</i>	<i>1.366"</i>
	<i>8</i>	<i>1.157"</i>	<i>1.157"</i>	<i>*</i>		<i>8</i>	<i>1.350"</i>	<i>1.253"</i>	<i>1.317"</i>
	<i>10</i>	<i>1.173"</i>	<i>1.189"</i>	<i>*</i>		<i>10</i>	<i>1.317"</i>	<i>1.221"</i>	<i>1.510"</i>

Sketch/Identification

** Tee Connection*



Ultrasonic Data Sheet
W.R. Martin for ANII 10/25/82
Thickness Measurement
 Continuation Page of

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i># 3</i>	Loop/Zone <i>NA / 51</i>
Component/Piping System <i>Shutdown Cooling from loop 2</i>	Examiner/Level <i>Danny A. Loftis II</i>		Date <i>10-18-82</i>
Procedure <i>ISI-2.5 Rev. 0 FC. 1</i>	Iso/Drawing No. <i>ZORR-5/Rev. 2 FC. 4</i>	VCR Supervisor <i>Daniel Jones</i>	

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>SI-012</i>	<i>12</i>	<i>1.350"</i>	<i>1.398"</i>	<i>1.205"</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
	<i>2</i>	<i>1.333"</i>	<i>1.366"</i>	<i>1.253"</i>					
	<i>4</i>	<i>1.285"</i>	<i>1.366"</i>	<i>1.253"</i>					
	<i>6</i>	<i>1.382"</i>	<i>1.414"</i>	<i>1.269"</i>					
	<i>8</i>	<i>1.333"</i>	<i>1.478"</i>	<i>1.237"</i>					
	<i>10</i>	<i>1.366"</i>	<i>1.430"</i>	<i>1.221"</i>					

Sketch/Identification

M.R. Martin, ANII 10-25-82



Ultrasonic Examination Report

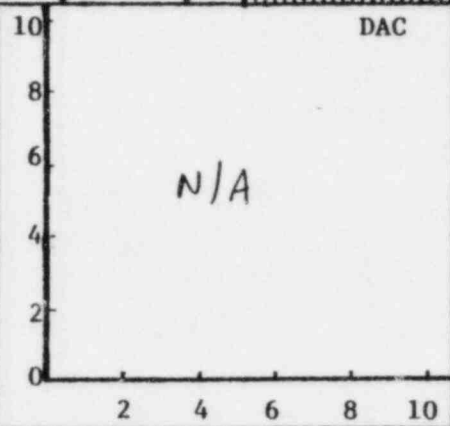
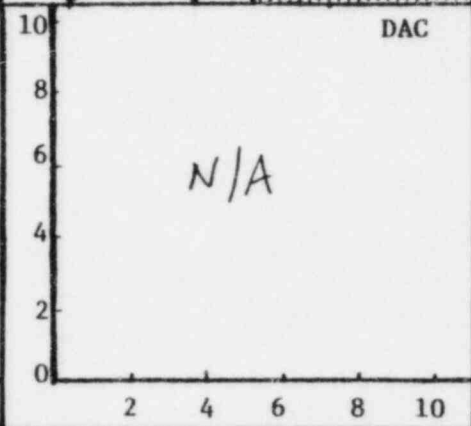
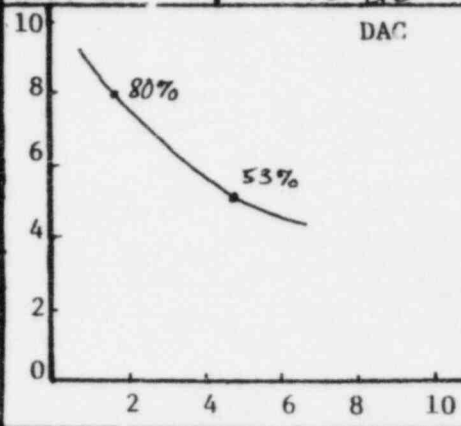
Customer LP&L		Plant Waterford		Unit 3	Loop/Zone N/A/51	Iso/Drawing No. ZONE 51 R.2 F.C.4	
Procedure ISI-2.7 R.O.F.C.4		Exam Surface O.D.	Examiner/Level Daryl A. Johnson II		VCR Supervisor Daniel Z. Jensen		Date 10-18-82
Component/Piping System Shutdown Cooling line from loop 2			Pipe Size 14"	Weld Type Butt	Cal. Block # UT-119	Couplant: Type ^{Sonotrace} 40 Batch No. 8124	

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **E.C.4**

	Transducer	0°	45°	60°	Instrument			
	S/N	41874	NA	NA	Mfr.	SONIC	Model	Mark I
	Size	1/2"			S/N	02307E	RepRate	3K
	Frequency	3.5 mhz			Reject	OFF	Filter	off
Beam Angle	0°			Damp	MIN.	Coax	6' BK to PK	
				Freq.	2 MHz	Viden	Normal	

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
1/4 T	80%	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	8:35	11:45	NA	NA	NA	NA
3/4 T	53%	4.8															
1 T		7.0															
Ref. dB	45 db																



Additional Comments/Sketch

M. R. Martin, ANII 10/25/82



The Virginia Corp.
of Richmond

Ultrasonic Examination Report - Continuation Sheet

Page of

Customer LP+L	Plant Waterford	Unit 3	Loop/ Zone NA 51	Iso/Drawing No. Zone 51 R2 FC-4
Procedure 151-2.7 R.D.F.C-4	Exam Surface O.D.	Examiner/Level Muy A. Roberts II	VCR Supervisor Daniel Jensen	Date 10-18-82
Component/Piping System Shutdown Cooling from Loop 2	Pipe Size 14"	Weld Type Butt	Cal. Block UT-119	Couplant: Type & Batch # Sonotrace 40 SN: 8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
51-004	Par	NA	NA	NA	Par	Par due to Tee Configuration on 2 side	Smooth	Ground	NI	Sat	
51-009	Par	NA	NA	NA	Par	Par due to Tee Configuration on 5 side	Smooth	Ground	NI	Sat	
51-010	Par	NA	NA	NA	Par	Par due to 6 Welded lugs on 5 side, 3/4" from weld, 2 1/4" wide. Approx. 5% of D scan, 20% of base metal scan not covered	Smooth	Ground	NI	Sat	
51-011	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	
51-012	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	

M.R. Martin, ANII 10-25-82

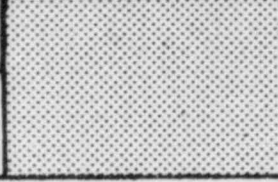
Ultrasonic Examination Report



Customer LPEL		Plant WATERFORD		Unit 3	Loop/Zone 2/51	Iso/Drawing No. ZONE 51 R-2, F.C.4	
Procedure ISI 2.7 R-O, F.C.4	Exam Surface O.D.	Examiner/Level James Wright IV		VCR Supervisor Donald Jones		Date 10-18-82	
Component/Piping System CLASS 2			Pipe Size 14"	Weld Type BUTT	Cal. Block UT-119	Couplant: SONOTRACE Type 40 Batch No B124	

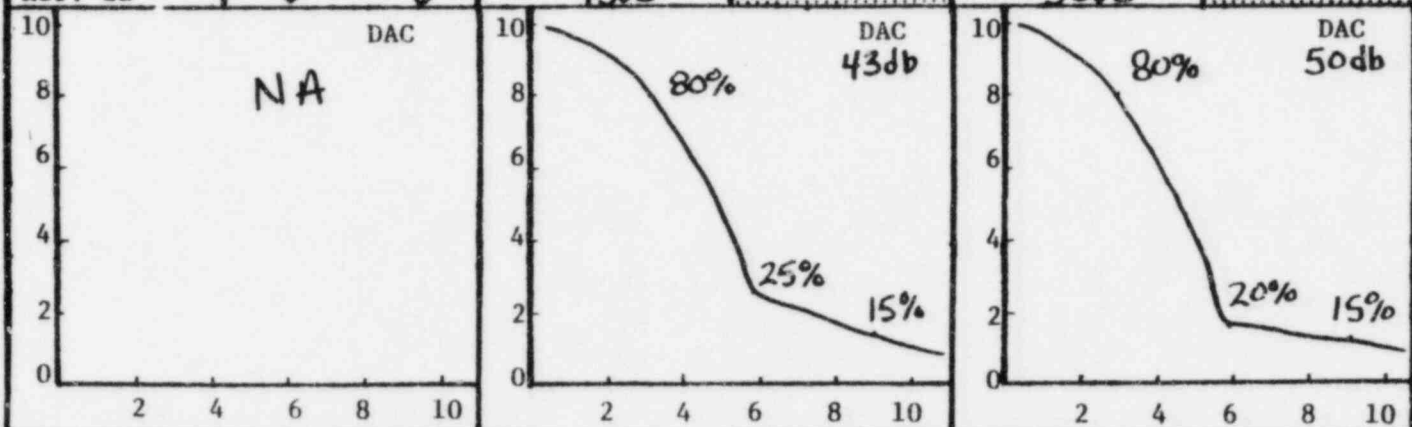
Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number 4



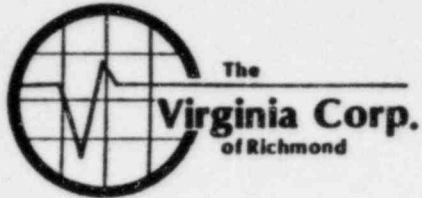
Transducer	0°	45°	60°	Instrument			
S/N	NA	D22063	NA	Mfr.	SONIC	Model	MARK I
Size		.50"		S/N	03704E	RepRate	3K
Frequency		2.25MHz		Reject	OFF	Filter	OFF
Beam Angle	<input checked="" type="checkbox"/>	45°	<input type="checkbox"/>	Damp	MIN	Coax	6' BNC to MD
				Freq.	2.0MHz	Video	NORM

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.0	NA		NA	NA	9:05	10:44	NA	NA
2T			25%	6.0			20%	6.0					1:07	4:14		
3T			15%	9.0			15%	9.0								



Additional Comments/Sketch

M.R. Martin, ANII 10-25-82

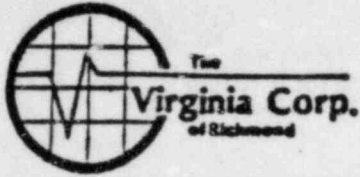


Ultrasonic Examination Report - Continuation Sheet

Page of

Customer <i>LPEL</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>2 51</i>	Iso/Drawing No. <i>ZONE 51 REV.2, F.C.4</i>
Procedure <i>ISE 2.7 REV.0FC4</i>	Exam Surface <i>OD</i>	Examiner/Level <i>James Wrench LVII</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-18-82</i>
Component/Piping System <i>SHUTDOWN COOLING FROM LOOP 2</i>	CLASS <i>2</i>	Pipe Size <i>14"</i>	Weld Type <i>BUTT</i>	Cal. Block Couplant: Type & Batch # <i>UT-119 SONOTRACE 40 #8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>51-004</i>	<i>NA</i>	<i>NO</i>	<i>YES</i>	<i>PAR</i>	<i>NA</i>	<i>TEE CONNECTION ALONG TOE OF WELD 2 SIDE</i>	<i>SMOOTH</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT</i>	
<i>51-009</i>	<i>NA</i>	<i>YES</i>	<i>NO</i>	<i>PAR</i>	<i>NA</i>	<i>TEE CONNECTION ALONG TOE OF WELD 5 SIDE</i>	<i>SMOOTH</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT</i>	
<i>51-010</i>	<i>NA</i>	<i>YES</i>	<i>PAR</i>	<i>YES</i>	<i>NA</i>	<i>5 SCAN PAR DUE TO 6 WELDED LUGS 3/4" FROM WELD, 2 1/4" WIDE. APPROX 70% OF AREA IN FRONT OF LUGS NOT COVERED</i>	<i>SMOOTH</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT</i>	
<i>51-011</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>		<i>SMOOTH</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT</i>	
<i>51-012</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>		<i>SMOOTH</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT</i>	



M.R. Martin, ANIS 10-25-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer LP&L	Plant Waterford	Unit 3	Loop/Zone N/A/51
Component/Piping System Shutdown Cooling from loop 2	Examiner/Level <i>Mary A. Roberts II</i>	Date 10-19-82	
Procedure ISI-2.5 R.O.F.C.1	Iso/Drawing No. Zone 51 R.2 F.C.4	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Equipment

Instrument	Transducer		Calibration
Mfgr. SONIC	Mfgr. Panometrics	Size 1.5"	Cal. Block UT-119
Model Mark I	Freq. 3.5 MHz		Cal. Block N/A
S/N 02307E	Serial No. 41873		Range Cal. 1.607
Reject off	Coax. Cable 6' BNC to P/c		Calibration Checks IN 11:50 OUT-3:35
Damp. MIN.	Gain 46 db		
Freq. 2 MHz			
Rep. Rate 3K			
Filter off			
Video Normal			
Couplant Sonotrace 40 #8124			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
51-016	12	1.285	1.269	1.269	51-018	12	1.253	N/A	1.317
51-016	2	1.221	1.237	1.269	51-018	2	1.189		1.285
51-016	4	1.189	1.221	1.269	51-018	4	1.189		1.221
51-016	6	1.173	1.253	1.253	51-018	6	1.221		1.382
51-016	8	1.253	1.285	1.269	51-018	8	1.237		1.317
51-016	10	1.189	1.285	1.269	51-018	10	1.301	↓	1.301
51-017	12	1.301	1.285	1.269	51-020	12	1.173	1.350	N/A
51-017	2	1.350	1.301	1.221	51-020	2	1.157	1.350	
51-017	4	1.317	1.331	1.221	51-020	4	1.237	1.333	
51-017	6	1.317	1.430	1.253	51-020	6	1.173	1.333	
51-017	8	1.317	1.350	1.269	51-020	8	1.189	1.317	
51-017	10	1.301	1.301	1.285	51-020	10	1.173	1.317	↓

Sketch/Identification



Ultrasonic Data Sheet

M.R. Martin for ANII 10-25-82

Thickness Measurement

Continuation Page of

Customer <i>L P & L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA / 51</i>
Component/Piping System <i>Shutdown Cooling Return to Loop 2</i>	Examiner/Level <i>Mary A. Luffkin II</i>	Date <i>10-19-82</i>	
Procedure <i>ISI-2.5 R.O FC-1</i>	Iso/Drawing No. <i>Zone 51 R.2 FC-4</i>	VCR Supervisor <i>Daniel F. Jones</i>	

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>51-023</i>	<i>12</i>	<i>1.269"</i>	<i>1.446"</i>	<i>1.253"</i>	<i>51-021</i>	<i>12</i>	<i>1.301"</i>	<i>1.558"</i>	<i>1.382"</i>
	<i>2</i>	<i>1.189"</i>	<i>1.301"</i>	<i>1.253"</i>		<i>2</i>	<i>1.333"</i>	<i>1.446"</i>	<i>1.398"</i>
	<i>4</i>	<i>1.221"</i>	<i>1.366"</i>	<i>1.269"</i>		<i>4</i>	<i>1.221"</i>	<i>1.366"</i>	<i>1.398"</i>
	<i>6</i>	<i>1.205"</i>	<i>1.542"</i>	<i>1.253"</i>		<i>6</i>	<i>1.157"</i>	<i>1.430"</i>	<i>1.366"</i>
	<i>8</i>	<i>1.221"</i>	<i>1.333"</i>	<i>1.237"</i>		<i>8</i>	<i>1.269"</i>	<i>1.382"</i>	<i>1.382"</i>
	<i>10</i>	<i>1.205"</i>	<i>1.301"</i>	<i>1.253"</i>		<i>10</i>	<i>1.317"</i>	<i>1.462"</i>	<i>1.366"</i>
<i>51-024</i>	<i>12</i>	<i>1.317"</i>	<i>1.253"</i>	<i>1.398"</i>	<i>51-022</i>	<i>12</i>	<i>1.269"</i>	<i>1.253"</i>	<i>1.526"</i>
	<i>2</i>	<i>1.350"</i>	<i>1.221"</i>	<i>1.333"</i>		<i>2</i>	<i>1.285"</i>	<i>1.253"</i>	<i>1.446"</i>
	<i>4</i>	<i>1.285"</i>	<i>1.157"</i>	<i>1.382"</i>		<i>4</i>	<i>1.285"</i>	<i>1.253"</i>	<i>1.317"</i>
	<i>6</i>	<i>1.350"</i>	<i>1.092"</i>	<i>1.573"</i>		<i>6</i>	<i>1.253"</i>	<i>1.269"</i>	<i>1.430"</i>
	<i>8</i>	<i>1.333"</i>	<i>1.269"</i>	<i>1.462"</i>		<i>8</i>	<i>1.237"</i>	<i>1.253"</i>	<i>1.317"</i>
	<i>10</i>	<i>1.317"</i>	<i>1.253"</i>	<i>1.317"</i>		<i>10</i>	<i>1.269"</i>	<i>1.253"</i>	<i>1.398"</i>

Sketch/Identification

W.R. Martin, ANII 10-25-82



Ultrasonic Examination Report

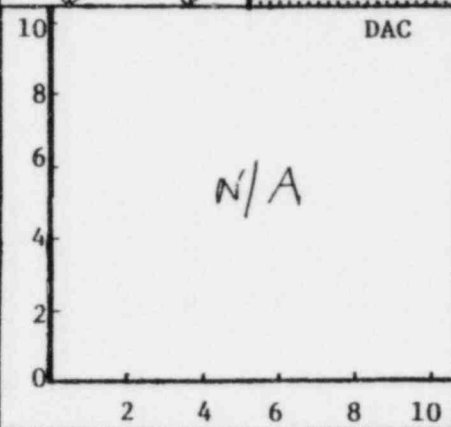
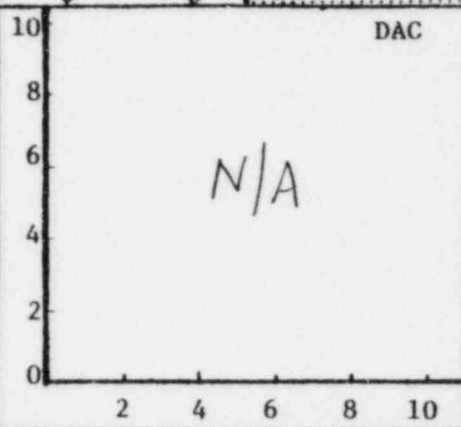
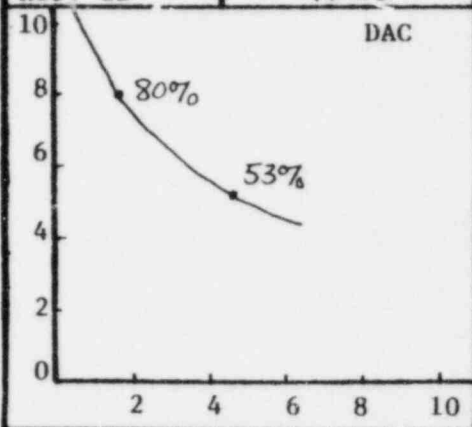
Customer <i>LP&L</i>		Plant <i>Watertford</i>		Unit <i>3</i>	Loop/Zone <i>N/A/51</i>	Iso/Drawing No. <i>Zone 51 R.2 F.C.4</i>	
Procedure <i>ISI-27 R.O F.C.4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Don A. Sobies II</i>			VCR Supervisor <i>Wanilt Jensen</i>	Date <i>10-19-82</i>	
Component/Piping System <i>Shutdown Cooling Return to loop 2</i>			Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-119</i>	Couplant: <i>Sonotrace</i> Type <i>40</i> Batch No. <i>8124</i>	

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *F.C.4*

Transducer	0°	45°	60°	Instrument			
	S/N	<i>41873</i>	<i>N/A</i>	Mfr.	<i>SONIC</i>	Model	<i>Mark I</i>
	Size	<i>1/2"</i>		S/N	<i>02307E</i>	RepRate	<i>3K</i>
	Frequency	<i>3.5MHz</i>		Reject	<i>off</i>	Filter	<i>off</i>
Beam Angle	<i>0°</i>			Damp	<i>MIN.</i>	Coax	<i>6' Back to P/C</i>
Calibration				Freq.	<i>2 MHz</i>	Video	<i>Normal</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
<i>1/4T</i>	<i>80%</i>	<i>1.5</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>11:50</i>	<i>3:35</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
<i>3/4T</i>	<i>53%</i>	<i>4.8</i>															
<i>1T</i>		<i>7.0</i>															



Additional Comments/Sketch

M.R. Martin, ANE 10-25-82



The Virginia Corp.
Richmond

Ultrasonic Examination Report - Continuation Sheet

Customer LP+L	Plant Waterford	Unit 3	Loop/ Zone NA / 51	Iso/Drawing No. Zone 51 R.2 FC-4
Procedure ISI-2.7 R.O FC-4	Exam Surface O.D.	Examiner/Level Mary A. Bolter II	VCR Supervisor Daniel J. Jones	Date 10-19-82
Component/Piping System Shutdown Cooling from Loop 2	Pipe Size 14"	Weld Type Butt	Cal. Block UT-119	Couplant: Type & Batch # Sonotrace 40 SN: 8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
51-016	Par	NA	NA	NA	Par	Par due to O.D. taper on 5 side	Smooth	Ground	NI	Sat	
51-017	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	
51-018	Par	NA	NA	NA	Par	Par due to valve Configuration on 2 side	Smooth	Ground	NI	Sat	
51-020	Par	NA	NA	NA	Par	Par due to valve Configuration on 5 side	Smooth	Ground	NI	Sat	
51-021	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	
51-022	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	
51-023	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	
51-024	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	

M.R. Martin, ANEI 10-25-82

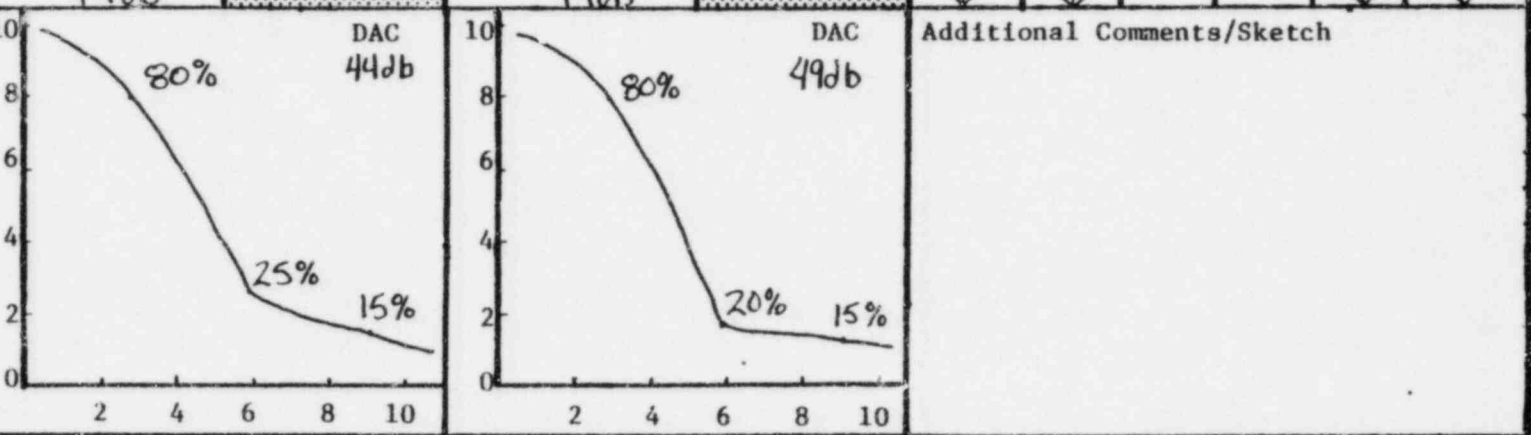


Ultrasonic Examination Report

Customer LPEL	Plant WATERFORD	Unit 3	Loop/Zone 2151	Iso/Drawing No. ZONE 51 REV. 2, F.C. 4
Procedure ISI 2.7 REV. 0, F.C. 4	Exam Surface O.D.	Examiner/Level <i>James Martin</i>	VCR Supervisor <i>Daniel Jones</i>	Date 10-19-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 2 CLASS 2		Pipe Size 14"	Weld Type BUTT	Cal. Block # UT-119
		Couplant: SONOTRACE		Batch No. 8124

Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transducer	0°	45°	60°	Instrument			
	S/N	NA	D22063	NA	Mfg.	SONIC	Model	MARK I
	Size		.50"		S/N	03704E	RepRate	3K
	Frequency		2.25MHz		Reject	OFF	Filter	OFF
Field Changes: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, Number 4	Beam Angle	↓	45°	↓	Damp	MIN.	Coax	6' DAC to M.D.
					Freq.	2.0 MHz	Video	NORM

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.0	NA		NA	NA	11:58	3:50	NA	NA
2T			25%	6.0			20%	6.0								
3T			15%	9.0			15%	9.0								



M.R. Martin, ANEF 10-25-82

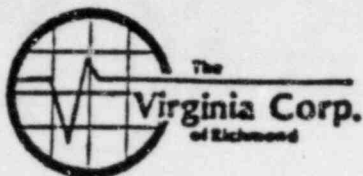


Ultrasonic Examination Report - Continuation Sheet

Page **of**

Customer LPEL	Plant WATERFORD	Unit 3	Loop/ Zone 2 / 51	Iso/Drawing No. ZONE 51 REV. 2, F.C. 4
Procedure ESI 2.7 REV. 0, F.C. 4	Exam Surface O.D.	Examiner/Level James [Signature] LVII	VCR Supervisor Wanda [Signature]	Date 10-19-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 2		CLASS 2	Pipe Size 14"	Weld Type BUTT
Cal. Block UT-119			Couplant: Type & Batch # SONOTRACE 40 #8124	

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
51-016	NA	YES	PAR	YES	NA	OD TAPER ON 5 SIDE	SMOOTH	GROUND	NI	SAT	
51-017	NA	YES	YES	YES	NA		SMOOTH	GROUND	NI	SAT	
51-018	NA	NO	YES	PAR	NA	VALVE CONFIGURATION ALONG TOE OF WELD 2 SIDE	SMOOTH	GROUND	NI	SAT	
51-020	NA	YES	NO	PAR	NA	VALVE CONFIGURATION ALONG TOE OF WELD 5 SIDE	SMOOTH	GROUND	NI	SAT	
51-021	NA	YES	YES	YES	NA		SMOOTH	GROUND	NI	SAT	
51-022	NA	YES	YES	YES	NA		SMOOTH	GROUND	NI	SAT	
51-023	NA	YES	YES	YES	NA		SMOOTH	GROUND	NI	SAT	
51-024	NA	YES	YES	YES	NA		SMOOTH	GROUND	NI	SAT	



M.R. Martin, ANII 10-25-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i># 3</i>	Loop/Zone <i>2/51</i>
Component/Piping System <i>Shutdown Cooling from loop 2</i>	Examiner/Level <i>Michael W. Blow II</i>	Date <i>10-20-82</i>	
Procedure <i>ISI-2.5 Rev. 0 FC. 1</i>	Iso/Drawing No. <i>Zone 51 Rev. 2 FC. 4</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached [] Yes [<input checked="" type="checkbox"/>] No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>SONIC</i>	Mfgr. <i>Panometrics</i>	Size <i>-2.5" DIA</i>	Cal. Block <i>UT-113</i>	
Model <i>MARK I</i>			Cal. Block	
S/N <i>02307 E</i>	I. eq. <i>5.0 mhz</i>		Range Cal. <i>.600"</i>	
Reject <i>off</i>			Calibration Checks	
Damp. <i>8</i>	Serial No. <i>44650</i>		IN <i>10:10</i>	
Freq. <i>5.0</i>			OUT <i>10:55</i>	
Rep. Rate <i>3K</i>	Coax. Cable <i>6' BNC TO PC</i>		IN <i>12:40</i>	
Filter <i>off</i>			OUT <i>4:10</i>	
Video <i>off</i>	Gain <i>73 db</i>			
Couplant <i>SonicTrace 40 Batch #8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>51-033</i>	<i>12</i>	<i>.510"</i>	<i>*</i>	<i>.336"</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
	<i>2</i>	<i>.432"</i>	<i>*</i>	<i>.354"</i>					
	<i>4</i>	<i>.480"</i>	<i>*</i>	<i>.330"</i>					
	<i>6</i>	<i>.360"</i>	<i>*</i>	<i>.354"</i>					
	<i>8</i>	<i>.408"</i>	<i>*</i>	<i>.330"</i>					
<i>51-036</i>	<i>10</i>	<i>.444"</i>	<i>*</i>	<i>.336"</i>					
	<i>12</i>	<i>.468"</i>	<i>.372</i>	<i>.348"</i>					
	<i>2</i>	<i>.372"</i>	<i>.486</i>	<i>.342"</i>					
	<i>4</i>	<i>.438"</i>	<i>.432</i>	<i>.336"</i>					
	<i>6</i>	<i>.408"</i>	<i>.420</i>	<i>.336"</i>					
	<i>8</i>	<i>.420"</i>	<i>.444</i>	<i>.348"</i>					
	<i>10</i>	<i>.426"</i>	<i>.486</i>	<i>.354"</i>					

Sketch/Identification

* NO 2 SCAN due TO VALVE

M.R. Martin, ANIT 10-25-82

Ultrasonic Examination Report



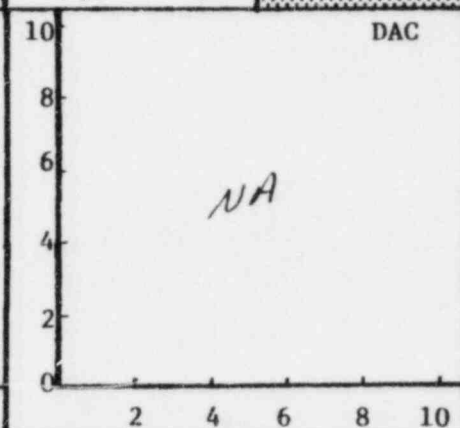
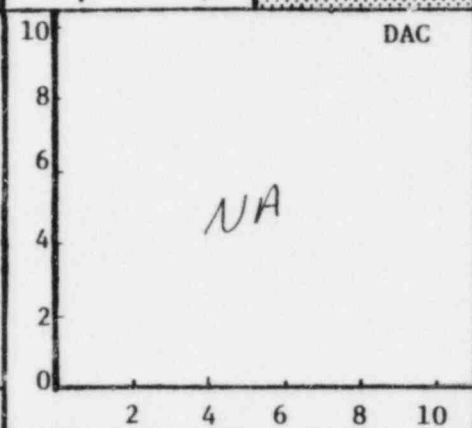
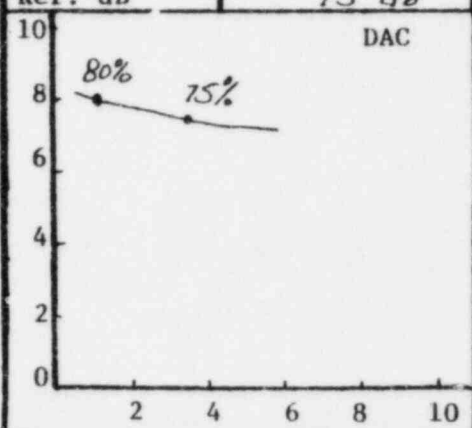
Customer <i>L P & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>2/S1</i>	Iso/Drawing No. <i>ZONE S1 REV 2 FCS</i>
Procedure <i>ISI-2.7 R.O FC 4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Michael W. Blum II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-20-82</i>
Component/Piping System <i>SHUTDOWN Cooling Loop 2</i>		Pipe Size <i>8"</i>	Weld Type <i>BUTT</i>	Cal. Block # <i>UT-113</i>
			Couplant: <i>SOUNDTRACE</i> Type <i>40</i>	Batch No <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *4*

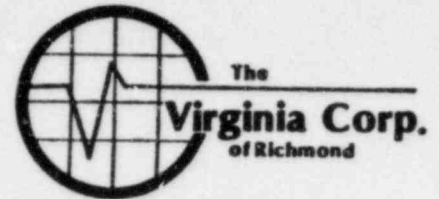
Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	<i>44650</i>	<i>NA</i>	<i>NA</i>	Mfgr.	<i>Sonic</i>	Model	<i>MARK I</i>
	<i>25" DIA</i>			S/N	<i>02307E</i>	RepRate	<i>3 K</i>
	<i>5.0 MHz</i>			Reject	<i>OFF</i>	Filter	<i>OFF</i>
	<i>0°</i>			Damp	<i>B</i>	Coax	<i>6 BAX-PC</i>
				Freq.	<i>5.0</i>	Video	<i>DIFF</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks							
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
<i>1/4 T</i>	<i>80%</i>	<i>1.2</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>10:10</i>	<i>10:55</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4 T</i>	<i>75%</i>	<i>3.6</i>											<i>12:40</i>	<i>4:10</i>				
<i>1 T</i>		<i>6.0</i>																
Ref. dB	<i>73 dB</i>																	



Additional Comments/Sketch

Ultrasonic Examination Report - Continuation Sheet Page 2 of 2



Customer L P & L	Plant WATERFORD	Unit 3	Loop/ Zone 2/51	Iso/Drawing No. ZONE 51 REV 2 FCS
Procedure ISI-2.7 R.O. FC.4	Exam Surface O. D.	Examiner/Level Michael W. Blen II	VCR Supervisor Daniel Jensen	Date 10-20-82
Component/Piping System Shutdown Cooling Loop 2	Pipe Size 8"	Weld Type BUTT	Cal. Block UT-113	Couplant: Type & Batch # SONOTRACC 40 ^{5/8} 8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
SI-033	PAR	NA	NA	NA	PAR	VALVE	CLEAN	Ground	NI	SAT	
SI-036	YES	NA	NA	NA	PAR	PARTIAL DUE TO WELD CROWN APPROX 5% NOT COVERED DUE TO LOSS OF CONTACT AT TOE OF WELD	CLEAN	Ground	NI	SAT	

W.R. Martin, ANET 10-25-82

Ultrasonic Examination Report



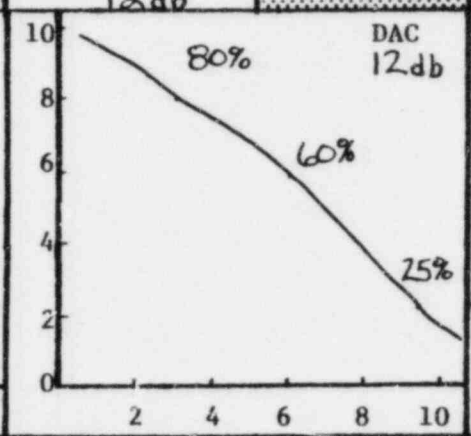
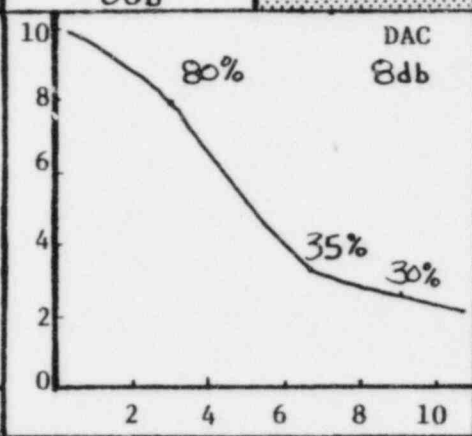
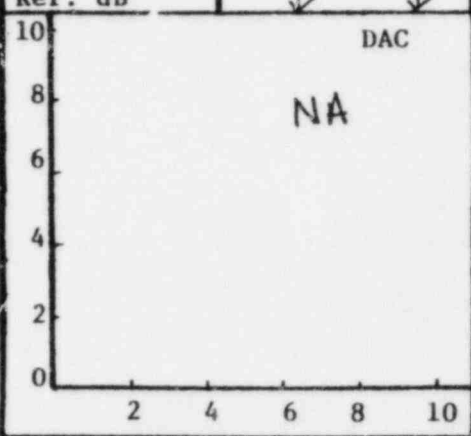
Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>NA 51</i>	ISO/Drawing No. <i>Zone 51 R.2 EC-45</i>
Procedure <i>ISE 2.7 REV. F.C.4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Dany A. Johnson II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-20-82</i>
Component/Piping System <i>Shutdown Cooling from loop 2</i>		Pipe Size <i>8"</i>	Weld Type <i>BUTT</i>	Cal. Block # <i>UT-113</i>
			Couplant: <i>Sonotrace</i>	Batch No. <i>0124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *4*

Transducer	0°	45°	60°	Instrument			
S/N	NA	H25i36	NA	Mfr.	KRAUTKRAMER	Model	USM2
Size		.25"		S/N	811370	RepRate	NA
Frequency		2.25MHz		Reject	NA	Filter	NA
Beam Angle	↓	45°	↓	Damp	OFF	Coax	60NC to MD

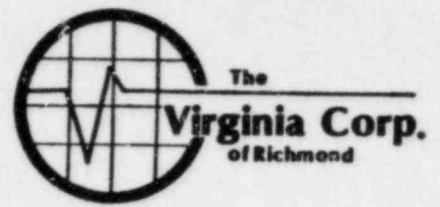
Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.2	NA				10:00	11:20	NA	NA
2T			35%	6.6			60%	6.2					12:40	4:35		
3T			30%	9.0			25%	9.6								



Additional Comments/Sketch

SINGLE ELEMENT - POSITION #2

W.R. Martin, ANIS 10-25-82



Ultrasonic Examination Report - Continuation Sheet

Page of

Customer L P+L	Plant Waterford	Unit 3	Loop/ Zone NA 51	Iso/Drawing No. Zone 51 R.2 FC-5
Procedure ISI-2.7 R.O FC-4	Exam Surface O.D.	Examiner/Level Mary A. Loftho II		VCR Supervisor Daniel Jensen
Component/Piping System Shutdown Cooling from Loop 2		Pipe Size 8"	Weld Type Butt	Date 10-20-82
		Cal. Block UT-113	Couplant: Type & Batch # Sonotrace 40 SN: 8124	

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visuai	
51033	NA	No	Yes	Par	NA	Valve on 2 side	Smooth	Ground	NI	Sat	
51036	NA	Yes	Yes	Yes	NA		Smooth	Ground	NBI	Sat	



M.R. Martin, ANEF 11-3-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP&L	Plant Waterford	Unit 3	Loop/Zone NA / 51
Component/Piping System Shutdown Cooling from Loop 2	Examiner/Level Liam A. DePinto II	Date 10-25-82	
Procedure 151-2.5 R.O. FC-1	Iso/Drawing No. Zone 51 R.2 FC-6	VCR Supervisor Daniel Jensen	Continuation Sheet Attached [] Yes [x] No

Equipment

Instrument		Transducer		Calibration
Mfgr. Sonic	Mfgr. Panametrics	Size .25"		Cal. Block UT-120
Model Mark 1				Cal. Block.
S/N 03704E	Freq. 5 MHz			Range Cal. .60"
Reject OFF	Serial No. 44650			Calibration Checks
Damp. 6	Coax. Cable 6' BNC-PC			
Freq. 5 MHz	Gain 61 DB			IN: 9:55
Rep. Rate 3k				OUT: 11:20
Filter OFF				EN: 12:55
Video Diff				OUT: 3:10
Couplant Sonotrace 40 SN: 8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
51-048	12	.468"	.384"	.576"	/				
	2	.456"	.384"	.510"					
	4	.456"	.384"	.492"					
	6	.444"	.384"	.516"					
	8	.456"	.384"	.474"					
	10	.444"	.390"	.516"					
51-052	12	.432"	.540"	.384"					
	2	.444"	.492"	.390"					
	4	.480"	.480"	.396"					
	6	.420"	.504"	.390"					
	8	.480"	.480"	.396"					
	10	.480"	.516"	.396"					

Sketch/Identification

M.R. Martin, ANFF

11-3-82

Ultrasonic Examination Report



Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA 51</i>	Iso/Drawing No. <i>Zone 51 R.2 FC-6</i>
Procedure <i>151-2.7 R.O FC-4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Dany A. Goldner #</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-25-82</i>
Component/Piping System <i>Shutdown Cooling from Loop 2</i>		Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-120</i>
		Couplant: <i>Type Sana 40</i>		Batch No. <i>8124</i>

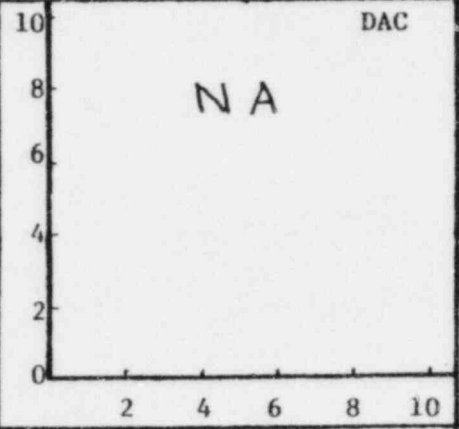
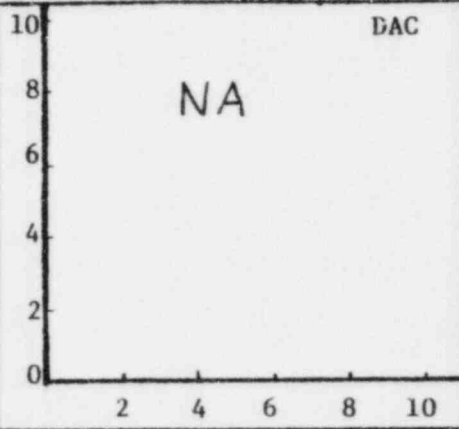
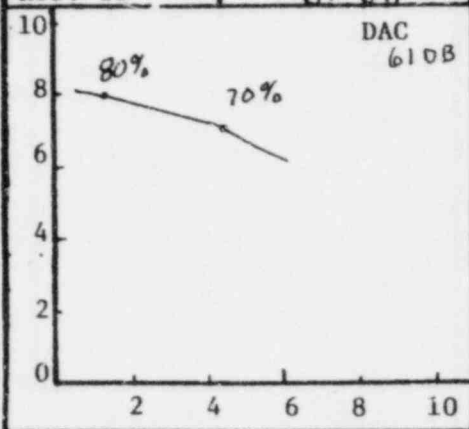
Continuation Sheet Attached
 Yes No

Transducer	0°	45°	60°	Instrument			
S/N	<i>44650</i>	<i>NA</i>	<i>NA</i>	Mfer.	<i>Sonic</i>	Model	<i>Mark I</i>
Size	<i>1.25"</i>			S/N	<i>03704E</i>	RepRate	<i>3K</i>
Frequency	<i>5MHz</i>			Reject	<i>OFF</i>	Filter	<i>OFF</i>
Beam Angle	<i>0°</i>			Damp	<i>6</i>	Coax	<i>6'BNC-PC</i>
				Freq.	<i>5MHz</i>	Video	<i>Diff</i>

Field Changes:
 Yes No
 If Yes, Number *FC-4*

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1/4 T</i>	<i>80%</i>	<i>1.4</i>	<i>NA</i>	<i>NA</i>			<i>NA</i>	<i>NA</i>			<i>9:55</i>	<i>11:20</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4 T</i>	<i>70%</i>	<i>4.1</i>									<i>12:55</i>	<i>3:10</i>				
<i>T</i>	<i>NA</i>	<i>6.0</i>														

Ref. dB *61 DB*



Additional Comments/Sketch

M.R. Martin, ANII 11-3-82

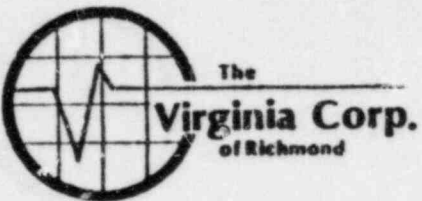


Ultrasonic Examination Report - Continuation Sheet

Page of

Customer LP+L	Plant Waterford	Unit 3	Loop/ Zone NA 51	Iso/Drawing No. Zone 51 R2 FC-6
Procedure ISI-2.7 R.O FC-4	Exam Surface O.D.	Examiner/Level Gary A. Loftis II	VCR Supervisor Daniel Jensen	Date 10-25-82
Component/Piping System Shutdown Cooling from Loop 2	Pipe Size 14"	Weld Type Butt	Cal. Block UT-130	Couplant: Type & Batch # Sonotrace 40 SN: 8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
51-048	Yes	NA	NA	NA	Par	Par due to Weld Crown approx 5% of weld NOT covered	Smooth	Ground	NI	Sat	
51-052	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	



Ultrasonic Examination Report

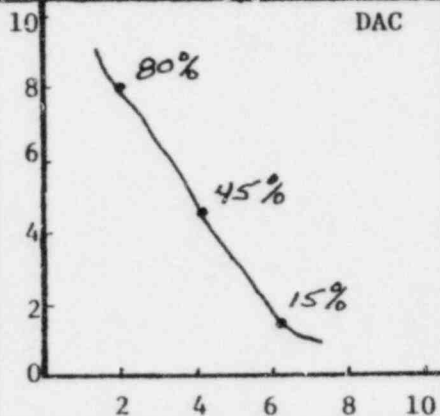
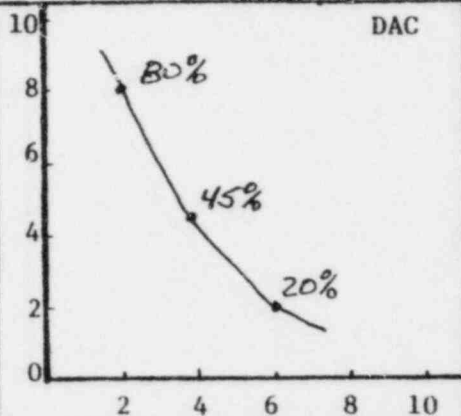
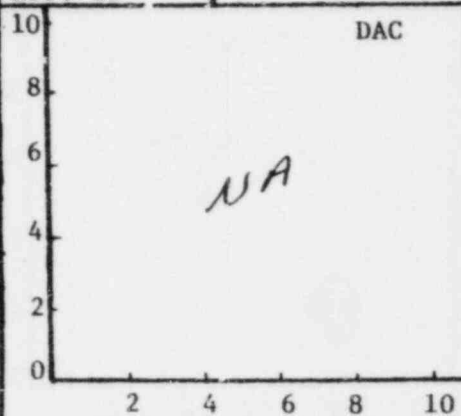
Customer L P & L	Plant WATERFORD	Unit 3	Loop/Zone 2/51	Iso/Drawing No. ZONE 51 REV 2 FC 6
Procedure ISI-2.7 R.O.F.C.4	Exam Surface O.D.	Examiner/Level Michael W. Blow II	VCR Supervisor Daniel Jensen	Date 10-25-82
Component/Piping System SHUTDOWN COOLING "2"		Pipe Size 14"	Weld Type BUTT	Cal. Block # UT-120
		Couplant: SONDRAKE Type 40 Batch No. B124		

Continuation Sheet Attached
 Yes No

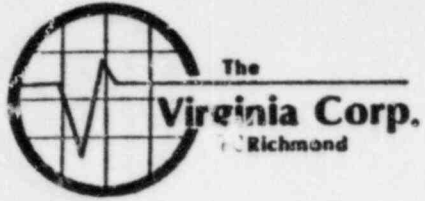
Field Changes:
 Yes No
 If Yes, Number **4**

Transducer	0°	45°	60°	Instrument			
S/N	NA	H2514B	NA	Mfr.	SONIC	Model	MARK I
Size		2.5" DIA		S/N	02307C	RepRate	3K
Frequency		2.25MHz		Reject	OFF	Filter	OFF
Beam Angle		45°		Damp	MIN	Coax	6' BNC-MD
				Freq.	2.0	Video	NORM

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks									
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
	NA	NA			NA	NA	NA			NA	NA	NA			1:00	3:10		
1T			80%	2.0				80%	2.0									
2T			45%	3.9				45%	4.2									
3T			20%	6.0				15%	6.2									



Additional Comments/Sketch



Ultrasonic Examination Report - Continuation Sheet

Page of

Customer L P & L	Plant WATERFORD	Unit 3	Loop/ Zone 2 / 51	Iso/Drawing No. ZONE 51 REV 2 FC. 6
Procedure ISI-2.7 R.O FC.4	Exam Surface O.D.	Examiner/Level Michael W. Blaw II	VCR Supervisor Daniel Jensen	Date 10-25-82
Component/Piping System SHUTDOWN Cooling "2"	Pipe Size 14"	Weld Type BUTT	Cal. Block UT-120	Couplant: Type & Batch # SONOTRACE 70 1/2 B124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
SI-048	NA	YES	YES	YES	NA		CLEAN	Ground	NRI	SAT	
SI-052	NA	YES	YES	YES	NA		CLEAN	Ground	NRI	SAT	



W.R. Martin, ANII 12-6-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LPIL	Plant WATERFORD	Unit 3	Loop/Zone 2 51
Component/Piping System STEAM COOLING FROM LOOP 2, CLASS 2	Examiner/Level James L. Hunt LVII	Date 11-11-82	
Procedure ISI 2.5 RO FL 1	Iso/Drawing No. ZONE 51 RE 12 FL 7	VCR Supervisor Kevin White	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

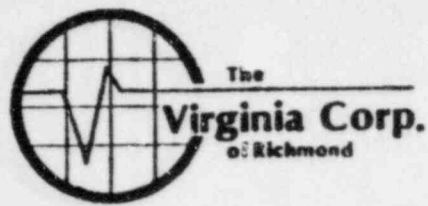
Instrument		Transducer		Calibration
Mfgr. SONIL	Mfgr. KB-AEROTECH	Size .50"	Cal. Block VT-119	
Model MARK I	Freq. 2.25 MHZ	Cal. Block NA		
S/N 02307E	Serial No. KB 2728	Range Cal. 1.125" @ 6.0		
Reject OFF	Coax. Cable 6' BNC TO PC	Calibration Checks		
Damp. MIN	Gain 70 DB	IN 1:13		
Freq. 2.0 MHZ	OUT 3:26			
Rep. Rate 3K				
Filter HI				
Video NORM				
Couplant SONOTAKE 40, BATCH # 8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
51-014-900	12	1.294"	1.200"	1.238"	NA	NA	NA	NA	NA
	2	1.238"	1.239"	1.219"					
	4	1.219"	1.219"	1.238"					
	6	1.238"	1.238"	1.256"					
	8	1.238"	1.238"	1.256"					
	10	1.200"	1.200"	1.238"					
NA	NA	NA	NA	NA					

Sketch/Identification

W.R. Martin, ANSE 12-6-82



Ultrasonic Examination Report

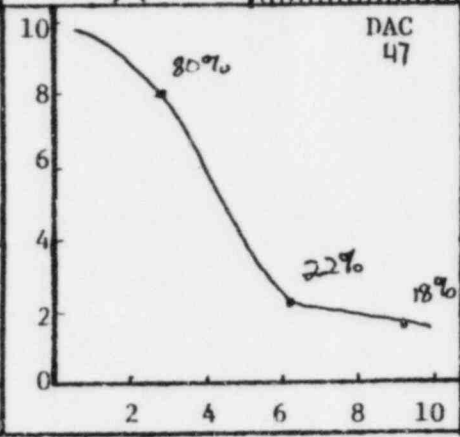
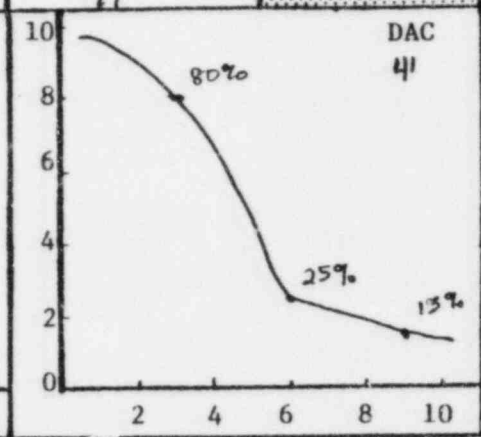
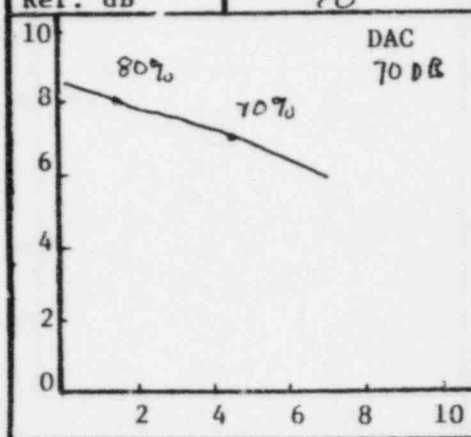
Customer <i>LP&H</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>2/51</i>	Iso/Drawing No. <i>Zone 51, R.2 F.C.7</i>
Procedure <i>ISI 27, R.O.F.C.4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>James Lynch LAF</i>	VCR Supervisor <i>Kevin White</i>	Date <i>11-11-82</i>
Component/Piping System <i>Shutdown Cooling From Loop 2, Class 2</i>	Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-119</i>	Couplant: Sonotrace Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *4*

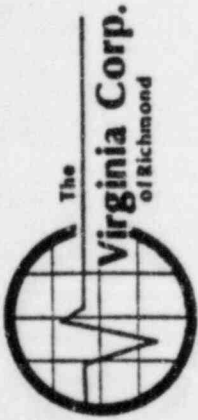
Transducer	0°	45°	60°	Instrument			
S/N	<i>KB2728</i>	<i>G07152</i>	<i>NA</i>	Mfr.	<i>Sonic</i>	Model	<i>MacKI</i>
Size	<i>.50"</i>	<i>.50"</i>		S/N	<i>02307E 0°</i> <i>0E307E 45°</i>	RepRate	<i>3K</i>
Frequency	<i>2.25 Mhz</i>	<i>2.25 Mhz</i>		Reject	<i>OFF</i>	Filter	<i>Ni</i>
Beam Angle	<i>0°</i>	<i>45°</i>	<i>↓</i>	Damp	<i>Min</i>	Coax	<i>2' BNC to PC</i> <i>2' ANS to MP</i>
				Freq.	<i>2.0 Mhz</i>	Video	<i>Norm</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1/4 T</i>	<i>80%</i>	<i>1.4</i>			<i>N/A</i>				<i>N/A</i>		<i>1:13</i>	<i>3:26</i>	<i>1:30</i>	<i>3:30</i>	<i>N/A</i>	<i>N/A</i>
<i>3/4 T</i>	<i>70%</i>	<i>4.2</i>														
<i>1 T</i>	<i>NA</i>	<i>6.0</i>														
			<i>80%</i>	<i>3.0</i>			<i>80%</i>	<i>3.0</i>								
			<i>25%</i>	<i>6.0</i>			<i>22%</i>	<i>6.2</i>								
			<i>15%</i>	<i>9.0</i>			<i>18%</i>	<i>9.2</i>								
Ref. dB	<i>70</i>		<i>41</i>				<i>47</i>									



Additional Comments/Sketch

M.R. Martin, ANFI 12-6-82



Ultrasonic Examination Report - Continuation Sheet

Customer	h. P.I.L.	Plant	WATER FORD	Unit	3	Loop/ Zone	3 51	Iso/Drawing No.	NR TM ZONE 51 REV 3 FC 780	Page	of
Procedure	ISI 2.7 REV 0 FC 4	Exam Surface	Examiner/Level	WCR Supervisor	Tennant	Date	11-11-82				
Component/Piping System	O.D.	Pipe Size	Weld Type	Cal. Block Couplant: Type & Batch #	UT-119	SONOTRAKE 40	8124				
SHOT DOWN COOLING FROM LOOP 3, CLASS 2											

Weld No.	Base Metal Scan	Scan Direction			Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8		Base Metal	Weld	UT	Visual	
51-014-100	YES	YES	YES	PAR	SMOOTH	CLEAN	NI	5AI		
				DOE TO HELD IDE. APPROX 15% OF WELD NOT EXAMINED						



W.R. Martin, ANFI 12-6-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 2/51
Component/Piping System Shutdown Cooling return loop 2	Examiner/Level Nary Longenecker II	Date 11-11-82	
Procedure ISI-2.5 R.O.F.C. 1	Iso/Drawing No. ZONE 51 R.O.F.C. 1	VCR Supervisor Kevin White	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument	Transducer		Calibration
Mfgr. SONIC	Mfgr. KB-Gamma	Size .25"	Cal. Block UT-112
Model MARK I			Cal. Block NA
S/N 01930E	Freq. 5 MHz		Range Cal. .445 @ 60 div.
Reject OFF	Serial No. JD5017		Calibration Checks IN OUT
Damp. MIN.			2:15 Ver. 5:15
Freq. 5 MHz	Coax. Cable 6' BNC to P/C		5:15 6:30
Rep. Rate 3K	Gain 80 db		
Filter OFF			
Video Normal			
Couplant Sonotrace 40 #8124			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
51-005	12	.548	.593	#NA	NA	NA	NA	NA	NA
51-005	2	.548	.534						
51-005	4	.496	.504						
51-005	6	.519	.519						
51-005	8	.519	.519						
51-005	10	.548	.548						
NA	NA	NA	NA	NA					

Sketch/Identification

* NA DUE TO 14" x 14" x 6" TEE CONNECTION.

M.R. Martin, ANFF 12-6-82



The
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Ultrasonic Examination Report

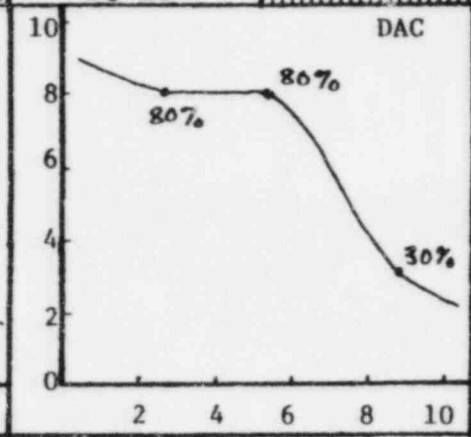
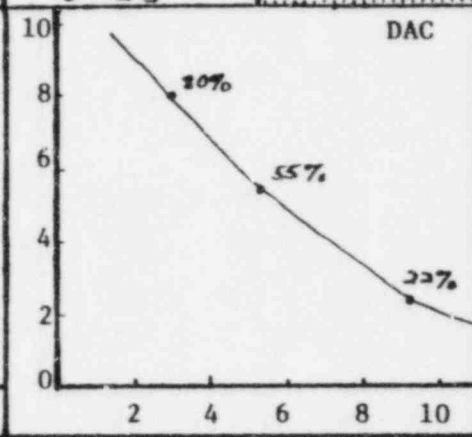
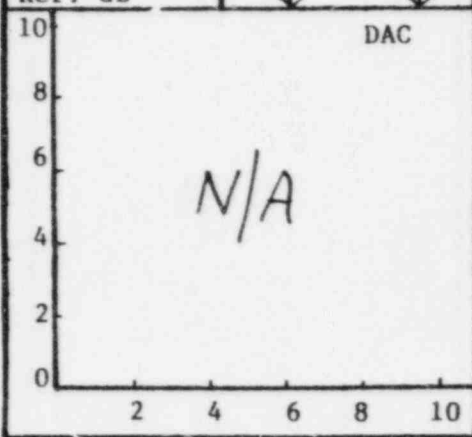
Customer LP&L	Plant Waterford	Unit 3	Loop/Zone 2/51	Iso/Drawing No. ZONE 51 R.2 F.C. 7⁸
Procedure 62 4 151-2.7 R.O F.C. 3	Exam Surface O.D.	Examiner/Level Harry Longenecker II	VCR Supervisor Kevin White	Date 11/12/82
Component/Piping System Shutdown Cooling from loop 2		Pipe Size 6"	Weld Type Butt	Cal. Block UT-112
Couplant: Type 40 Batch No. 8204				

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **F.C. 3-464**

Transducer	0°	45°	60°	Instrument			
S/N	NA	225138	NA	Mfg.	SONIC	Model	Mark I
Size		.25"		S/N	03704E	RepRate	3K
Frequency		2.25 MHz		Reject	OFF	Filter	H1
Beam Angle	↓	45°	↓	Damp	MIN	Coax	6' box to MID
				Freq.	2 MHz	Video	Normal

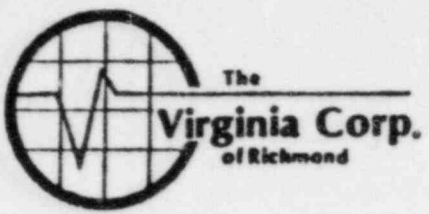
Calibration 0°			2 & 5 Scan					7 & 8 Scan					Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°			
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out		
1T	NA	NA	80	3	NA	NA	80	2.9	NA	NA	NA	NA	8:00	9:42	NA	NA		
2T			55	5.7			80	5.7										
3T			22	9			30	8.7										



Additional Comments/Sketch

M.R. Martin, ANIS 12-6-82

Ultrasonic Examination Report



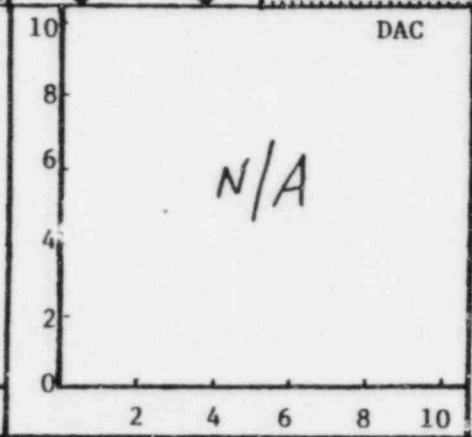
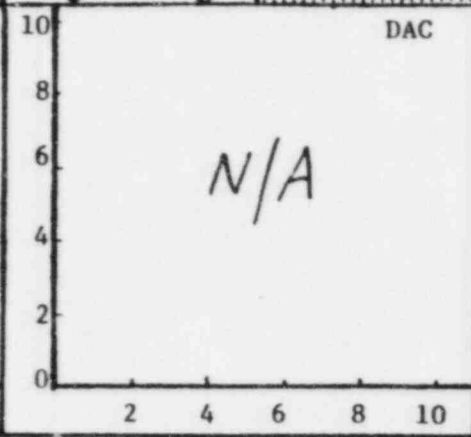
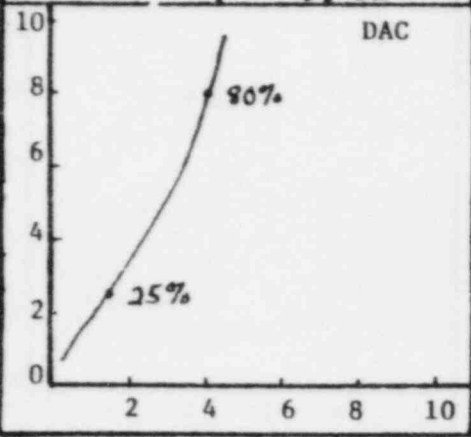
Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>2/51</i>	ISO/Drawing No. <i>ZONE 51 R.2 F.C.7</i>
Procedure <i>ISI-2.7 R.O.F.C.3</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Nary Longenecker II</i>	VCR Supervisor <i>Kevin White</i>	Date <i>11/11/82</i>
Component/Piping System <i>Shutdown Cooling from loop 2</i>	Pipe Size <i>6"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-112</i>	Couplant: <i>Sonotrace</i> Type <i>50</i> Batch No <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *F.C.3 & 4*

Transducer	0°	45°	60°	Instrument			
S/N	<i>J05017</i>	<i>NA</i>	<i>NA</i>	MFR.	<i>SONIC</i>	Model	<i>Mark I</i>
Size	<i>.25"</i>			S/N	<i>01930E</i>	RepRate	<i>3K</i>
Frequency	<i>5.0 MHz</i>			Reject	<i>off</i>	Filter	<i>off</i>
Beam Angle	<i>0°</i>			Damp	<i>MIN.</i>	Coax	<i>6'</i>
				Freq.	<i>5 MHz</i>	Videa	<i>Normal</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks							
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amr.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
<i>1/4T</i>	<i>25%</i>	<i>1.3</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>2:15</i>	<i>5:15</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4T</i>	<i>80%</i>	<i>4.0</i>																
<i>1T</i>	<i>NA</i>	<i>6.0</i>																



Additional Comments/Sketch

M.R. Martin, ANEI 12-6-82



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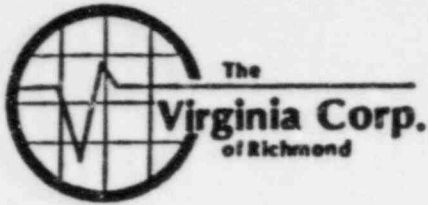
Ultrasonic Examination Report - Continuation Sheet Page of

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>2 51</i>	Iso/Drawing No. <i>ZONE 51 R-2 F.C.7</i>
Procedure <i>ISI 1.7 RD, F.C.</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Nery Longanes III</i>	VCR Supervisor <i>Kevin White</i>	Date <i>11-11-82</i>
Component/Piping System <i>SHUTDOWN COOLING FROM LOOP2</i>	Pipe Size <i>6"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-112</i>	Couplant: Type & Batch # <i>SONOTRACE 40 8129</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks	
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual		
<i>57-005</i>	<i>NA</i>	<i>PAR</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>PAR</i>	<i>* TEE CONNECTION</i>	<i>CLEAN</i>	<i>GROUND</i>	<i>RI</i>	<i>SAT.</i>	

** 14" x 14" x 6" TEE BASE METAL EXAMINED ON 2 SIDE ONLY. 0° PERFORMED ON WELD CROWN AND 2 SIDE H.A.Z.*

W.R. Martin, ANES 12-6-82



Ultrasonic Examination Report

Indication Record

Customer LP & L	Plant WATERFORD	Unit 3	Loop 2
Procedure ISI 2.7 R-O F.C. 4	Examiner/Level Navy Longenecker II	VCR Supervisor Kevin White	Date 11-11-82
Component/Piping System SHUTDOWN COOLING FROM LOOP	ISO Drawing No. ZONE 51 R2, F.C. 7	Cal. Standard No./Thickness UT-112 .445"	

Weld No.	Ind No.	Max. % DAC	Indication Length		Minimum Depth S.U. Sweep		Maximum Depth S.U. Sweep		Beam Angle	Beam Dir.	Base Metal Thickness 2 Side	Weld Thick.	Base Metal Thickness 5 Side	Remarks
			From	To	Pos.	Reading	Pos.	Reading						
51-028	1	70%	3/16"	1/4"	5/16" (2)	1.6	7/8" (2)	1.6	0°	0°	.593	.548	N/A	
	2	135%	3/8"	1 1/8"	3/16" (2)	2.3	1/4" (2)	2.3	0°	0°	.593	.548		
	3	100%	1 3/16"	1 5/16"	7/8" (2)	1.4	1/2" (2)	1.4	0°	0°	.593	.548		
	4	140%	1 3/4"	2 1/16"	5/16" (2)	1.3	1/16" (2)	1.3	0°	0°	.534	.548		
	5	110%	2 3/8"	2 7/16"	3/16" (2)	2.3	1/4" (2)	2.3	0°	0°	.534	.548		
	6	100%	3 1/4"	3 3/16"	3/16" (2)	1.5	3/8" (2)	1.5	0°	0°	.534	.548		
	7	35%	3 1/16"	3 3/4"	3/16" (2)	1.8	1/4" (2)	1.8	0°	0°	.534	.548		
	8	60%	3 7/8"	3 3/4"	5/16" (2)	3.3	3/8" (2)	3.4	0°	0°	.534	.548		
	9	75%	3 3/4"	3 7/8"	3/16" (2)	2.3	1/4" (2)	2.3	0°	0°	.534	.548		
	10	110%	4"	1 3/16"	1/4" (2)	2.3	5/16" (2)	2.3	0°	0°	.534	.548		
	11	100%	4 3/16"	4 1/16"	1/4" (2)	1.0	5/32" (2)	1.0	0°	0°	.534	.548		
	12	110%	4 1/16"	4 1/16"	3/8" (2)	1.8	1/16" (2)	1.8	0°	0°	.534	.548		
	13	180%	4 1/16"	4 7/8"	3/8" (2)	1.6	3/16" (2)	1.6	0°	0°	.534	.548		
	14	140%	5 1/16"	5 3/16"	3/16" (2)	1.6	13/32" (2)	1.6	0°	0°	.534	.548		
	15	130%	5 3/8"	5 1/2"	1/4" (2)	1.1	5/16" (2)	1.1	0°	0°	.504	.496		
	16	100%	5 7/8"	5 3/4"	1/2" (2)	2.3	5/16" (2)	2.35	0°	0°	.504	.496		
	17	75%	6 1/8"	6 1/4"	7/8" (2)	2.4	5/16" (2)	2.5	0°	0°	.504	.496		
	18	160%	6 13/16"	6 7/8"	3/8" (2)	1.0	1/16" (2)	1.0	0°	0°	.504	.496		
	19	75%	7 7/16"	8 1/4"	*	2.1	3/16" (2)	2.1	0°	0°	.504	.496		* LIFTOFF DUE TO WELD CONTOUR
	20	150%	8 3/16"	10 1/4"	1/4" (2)	.9	5/16" (2)	.9	0°	0°	.519	.519		INTERMITTENT INDICATION LENGTH
	21	100%-134	10 1/2"	11"	3/16" (2)	1.7	7/8" (2)	1.7	0°	0°	.519	.519		IS INTERMITTENT FROM 10 1/2" TO 12" AT 50% DAC
	22	120%	12 3/4"	13"	1/4" (2)	1.1	3/8" (2)	1.1	0°	0°	.519	.519		
	23	100%	15 1/4"	15 3/8"	3/16" (2)	1.8	5/16" (2)	1.9	0°	0°	.519	.519		
	24	170%	15 1/16"	15 3/8"	3/8" (2)	2.3	3/16" (2)	2.4	0°	0°	.519	.519		
	25	110%	16 1/16"	16 1/4"	3/8" (2)	*	5/16" (2)	2.4	0°	0°	.548	.548		* SWEEP OBSCURED BY INDICATION # 26
	26	200%	16 1/8"	16 3/16"	3/16" (2)	1.5	3/8" (2)	1.5	0°	0°	.548	.548		



The
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M.R. Martin ANEI 1-13-83
Ultrasonic Data Sheet
for
Thickness Measurement

Customer LP & L	Plant WATERFORD	Unit 3	Loop/Zone 2 51
Component/Piping System SHUTDOWN COOLING FROM LOOP	Examiner/Level Larry Longenecker II	Date 11-13-82	
Procedure I.S.I. 2.5 R-2.F.C.	Iso/Drawing No. ZONE 51 R-2.F.C.	VCR Supervisor Nancy Jensen	Continuation Sheet Attached [] Yes [4] No

Equipment

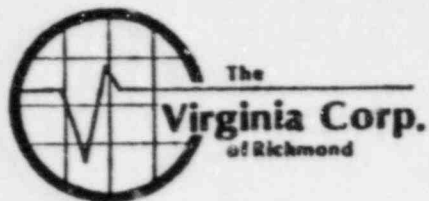
Instrument		Transducer		Calibration
Mfgr.	SONIC	Mfgr.	K-B AEROTECH	Cal. Block UT-119
Model	MARK 1	Size	.5" DIA.	Cal. Block
S/N	03704E	Freq.	2.25 MHZ.	Range Cal. 1.125" @ 7.0
Reject	OFF	Serial No.	KB 2654	Calibration Checks
Damp.	MIN.	Coax. Cable	6'	CAL. IN 1:30
Freq.	2. MHZ.	Gain	74 db	CAL. OUT 3:15
Rep. Rate	3K			
Filter	H1			
Video	NORM.			
Couplant	SONDTRACE 40 ² 8129			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
51-018-	12	1.382	V	1.318	N/A	N/A	N/A	N/A	N/A
	900 2	1.334	A	1.286					
	4	1.318	L	1.382					
	6	1.318	V	1.430					
	8	1.286	E	1.382					
	10	1.382		1.382					

Sketch/Identification

M.R. Martin, ANIE 11-13-83



Ultrasonic Examination Report

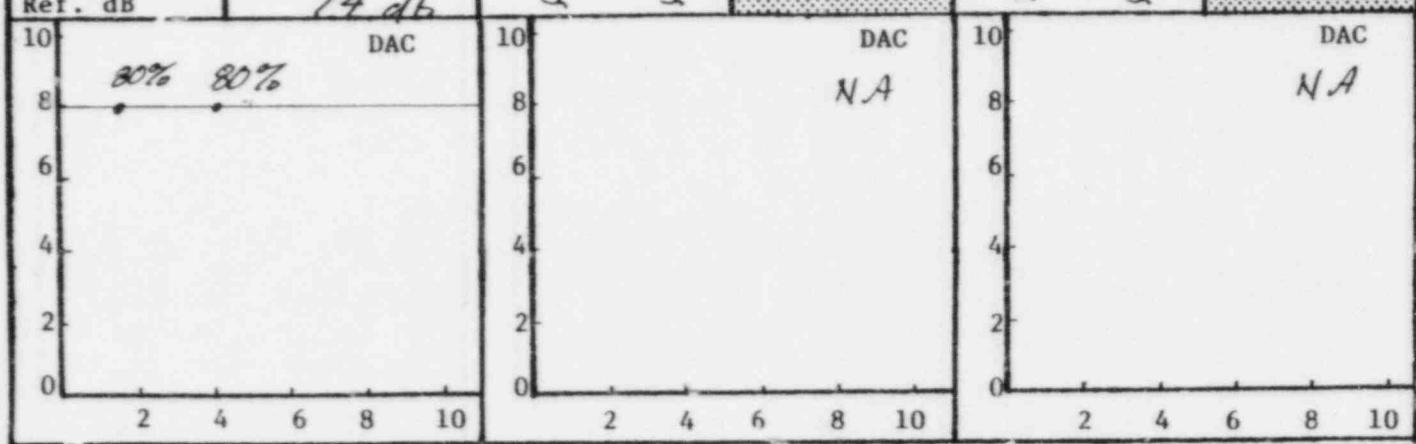
Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone 2 51	Iso/Drawing No. ZONE 51 R-2, F.C. 7
Procedure I.S.I. 2.7 R.O., FSA	Exam Surface O.D.	Examiner/Level Nary Hosenacker II	VCR Supervisor Daniel J. ...	Date 11-13-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 2	Pipe Size 14"	Weld Type BUTT	Cal. Block UT-119	Couplant: SONOTRACE Type 40 Batch No. 8128

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **4**

Transducer	0°	45°	60°	Instrument			
	S/N KB2654	NA	NA	Mfr.	SONIC	Model	MARK I
	Size .5" DIA.			S/N	03704E	RepRate	3K
	Frequency 2.25 MHz			Reject	OFF	Filter	H1
	Beam Angle 0°			Dam.	MIN.	Coax	6'
			Freq.	2. MHz.	Video	NORM	

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
1/4 T	80%	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	1:30	3:15	NA	NA	NA	NA
3/4 T	80%	4.0															
1 T	NA	7.0															
Ref. dB	74 db																



Additional Comments/Sketch



M.R. Martin, ANEI 12-6-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>2/51</i>
Component/Piping System <i>Shutdown Cooling from Loop 2, Class 2</i>		Examiner/Level <i>Kevin White, PE</i>	Date <i>11/17/82</i>
Procedure <i>ISI-2.5, R.O., FC 1</i>	Iso/Drawing No. <i>Zone 51, R.2, F.C. 8</i>	VCR Supervisor <i>Kevin White</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument	Transducer		Calibration
Mfgr. <i>Sonics</i>	Mfgr. <i>KB-Aerotech</i>	Size <i>1/2"</i>	Cal. Block <i>UT-119 (1.125")</i>
Model <i>Mark I</i>			Cal. Block <i>NA</i>
S/N <i>03704E</i>	Freq. <i>2.25 MHz</i>		Range Cal. <i>1.875"</i>
Reject <i>off</i>			Calibration Checks <i>INITIAL: 2:30 PM</i> <i>Final: 5:10 PM</i>
Damp. <i>Min</i>	Serial No. <i>KB-2654</i>		
Freq. <i>2</i>	Coax. Cable <i>6' PC + BNC</i>		
Rep. Rate <i>3K</i>	Gain <i>73 db</i>		
Filter <i>High</i>			
Video <i>Diff.</i>			
Couplant <i>Sonotrace 40, #8124</i>			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>51-016900</i>	<i>2</i>	<i>1.237"</i>	<i>1.237"</i>	<i>1.125"</i>	<i>51-017</i>	<i>2</i>	<i>1.350"</i>	<i>1.312"</i>	<i>1.237"</i>
	<i>4</i>	<i>1.162"</i>	<i>1.200"</i>	<i>1.125"</i>		<i>4</i>	<i>1.350"</i>	<i>1.350"</i>	<i>1.237"</i>
	<i>6</i>	<i>1.125"</i>	<i>1.237"</i>	<i>1.125"</i>		<i>6</i>	<i>1.350"</i>	<i>1.387"</i>	<i>1.275"</i>
	<i>8</i>	<i>1.162"</i>	<i>1.275"</i>	<i>1.125"</i>		<i>8</i>	<i>1.312"</i>	<i>1.350"</i>	<i>1.275"</i>
	<i>10</i>	<i>1.162"</i>	<i>1.275"</i>	<i>1.125"</i>		<i>10</i>	<i>1.350"</i>	<i>1.350"</i>	<i>1.312"</i>
	<i>12</i>	<i>1.200"</i>	<i>1.275"</i>	<i>1.125"</i>		<i>12</i>	<i>1.350"</i>	<i>1.275"</i>	<i>1.275"</i>

Sketch/Identification

M.R. Martin, ANEI 12-6-82

Ultrasonic Examination Report



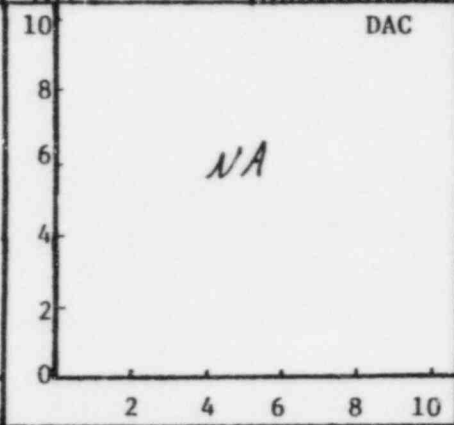
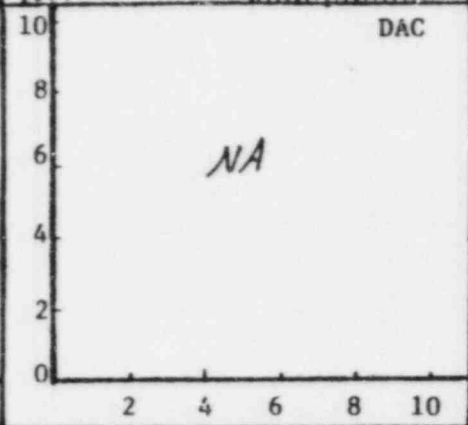
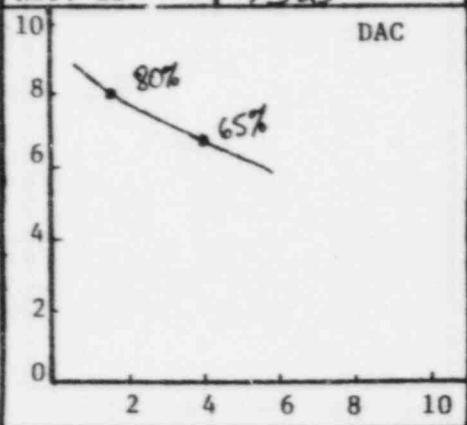
Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 2/51	Iso/Drawing No. Zone 51, R.2, FC.8
Procedure ISI-2.7, R.O, FC.4	Exam Surface O.D.	Examiner/Level Kenneth White, AE	VCR Supervisor Kenneth White	Date 11/17/82
Component/Piping System Shutdown Cooling from Loop 2, Class 2	Pipe Size 14"	Weld Type Butt	Cal. Block # UT-119(1.125")	Couplant: Sonotrace Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **4**

Transducer	0°	45°	60°	Instrument				
	S/N	KB-2654	NA	NA	Mfr.	Sonics	Model	Mark I
	Size	1/2"			S/N	03704E	RepRate	3K
	Frequency	2.25MHz			Reject	off	Filter	High
Beam Angle	0°			Damp	Min.	Coax	6' A to BNC	
				Freq.	2	Video	Diff	

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1/4T	80%	1.4	NA	NA	NA			NA	NA	NA						
3/4T	65%	4.0														
Ref. dB	73db		NA				NA									



Additional Comments/Sketch
None

W.R. Martin, ANEF 12-6-82

Ultrasonic Examination Report



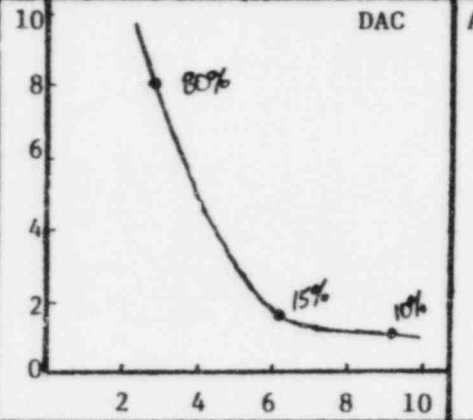
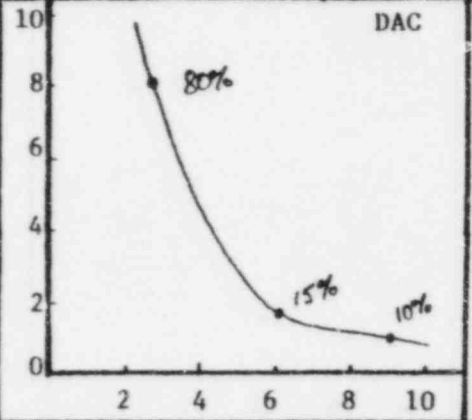
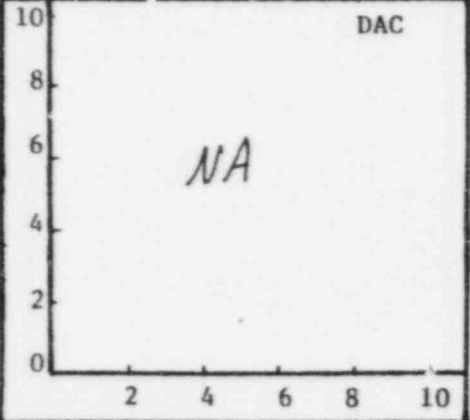
Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 2/51	Iso/Drawing No. Zone S/R.2, F.C. 8
Procedure ISI-2.7, R.Q.F.C.Y	Exam Surface O.D.	Examiner/Level Kevin White/II	VCR Supervisor Kevin White	Date 11/17/82
Component/Piping System Shutdown Cooling from Loop 2, Class 2		Pipe Size 14"	Weld Type Butt	Cal. Block # UT-119 (1.125")
				Couplant: Sonotrace Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **4**

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	NA	G07152	NA	Mfr.	Sonic	Model	Mark I
		1/2"		S/N	05304E	RepRate	3K
		2.25MHz		Reject	off	Filter	High
	46°		Damp	Min.	Coax	6' Min. to BNC	
			Freq.	2	Video	Norm	

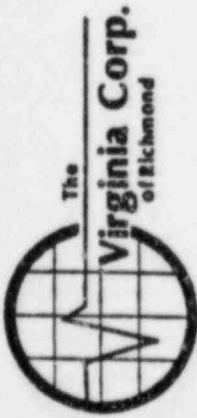
Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.1	NA		NA	NA	2:20PM	5:20PM	NA	NA
2T			15%	6.0			15%	6.2								
3T			10%	9.0			10%	9.3								
Ref. dB	NA		40db				48db									

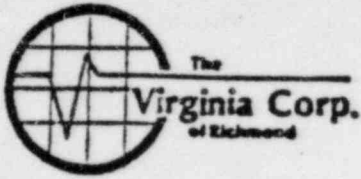


Additional Comments/Sketch
None

W.R. Martin A/E 12-6-82

Ultrasonic Examination Report - Continuation Sheet										Page	of	
Customer	Plant	Waterford	Unit	3	Loop/Zone	2/51	Iso/Drawing No.	Zone S1, R2, F-8	VCR Supervisor	Date		
Procedure	Exam Surface	Examiner/Level	Examiner	Level	Weld Type	Weld Type	Cal. Block	Couplant: Type & Batch #	UT-112	Sonotrace 40, #8124		
Component/Piping System	Pipe Size	14"	Butt	Surface Condition	Base Metal	Weld	Examination Results	Visual	Remarks	None		
Weld No.	Base Metal Scan	Scan Direction			Inspection Limitations	Surface Condition	Examination Results	Visual	Remarks			
		2	5	7 & 8						UT		
51-016	Par	Yes	Par	Yes	Par	0	O scan, Partial due to the transition of the weld.	Clean	ground	RI	Sat.	None
51-017	Yes	Yes	Yes	Yes	Par	0	O scan, Partial due to the transition of the weld.	Clean	ground	RI	Sat.	None
							All other Partials were due to the slope from the penetration on the S side. The slope begins approx. 1" from the toe of the weld.					





M.R. Martin, ANII 12-14-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 2/51
Component/Piping System Class 2 Shutdown Cooling from Loop 2	Examiner/Level Kevin White/II	Date 12-4-82	
Procedure ISI-2.5, R.O, F.C. 1	Iso/Drawing No. Zone S1, P2, F.C. 8	VCR Supervisor Kevin White	Continuation Sheet Attached [] Yes [x] No

Equipment

Instrument		Transducer		Calibration
Mfgr. Sonic	Mfgr. Aevotech	Size 1/2"	Cal. Block UT-119(1.125)	
Model Mark I			Cal. Block	
S/N 01930E	Freq. 2.25MHz		Range Cal. 1.875"	
Reject off	Serial No. KB2654		Calibration Checks	
Damp. Min	Coax. Cable 6' BDC-PC		IN: 2:10 PM	
Freq. 2	Gain 74db		OUT: 3:55 PM	
Rep. Rate 1K				
Filter Med				
Video Norm				
Couplant Sonotrace 40, #8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
51-013	2	1.163"	1.200"	1.313"					
	4	1.125"	1.219"	1.313"					
	6	1.163"	1.238"	1.313"					
	8	1.200"	1.275"	1.406"					
	10	1.163"	1.256"	1.444"					
✓	12	1.200"	1.200"	1.388"					

Sketch/Identification

M.R. Martin, ANIE 12-14-82

Ultrasonic Examination Report



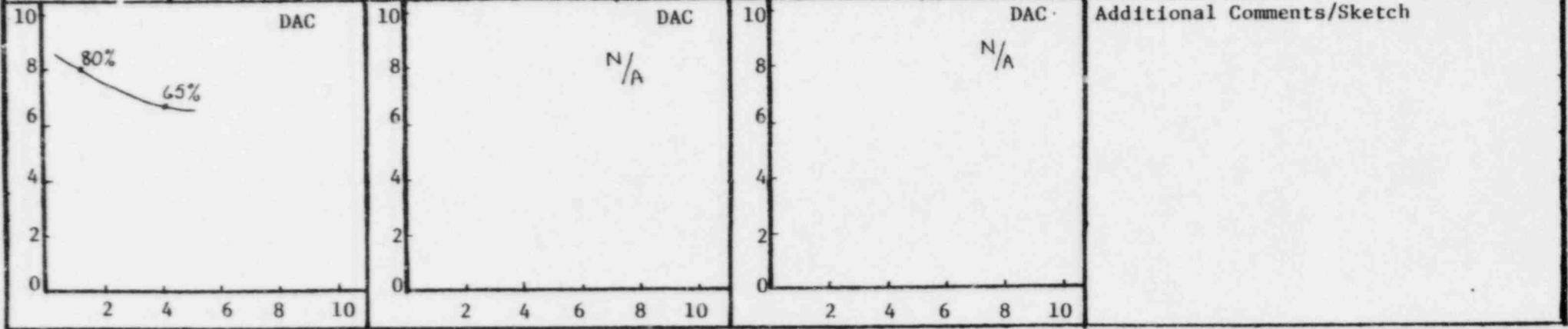
Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone 2/51	Iso/Drawing No. ZONE 51 REV 2 F.C. 8
Procedure ISI-2.7 R.O.F.C.4	Exam Surface O.D.	Examiner/Level <i>Kevin White</i>		Date 12-4-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 2		Class 2	Pipe Size 14"	Weld Type BUTT
Cal. Block # UT-119			Couplant: SONOTRACE Type: 40 Batch No: 8124	

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **4**

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	KB2654	N/A	N/A	Mfg.	SONIC	Model	MARK I
	.5"			S/N	01930E	RepRate	1K
	2.25 MHz			Reject	OFF	Filter	MED
	0°			Damp	MIN	Coax	6'
				Freq.	2	Video	NORM

Calibration 0°			2 & 5 Scan					7 & 8 Scan					Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°		
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out	
1/4T	80%	1.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2:10	9:49	3:55	N/A	N/A	N/A	N/A
3/4T	65%	4.1																	
1T		6.0																	



M.R. Martin, ANFE 12-14-82

Ultrasonic Examination Report



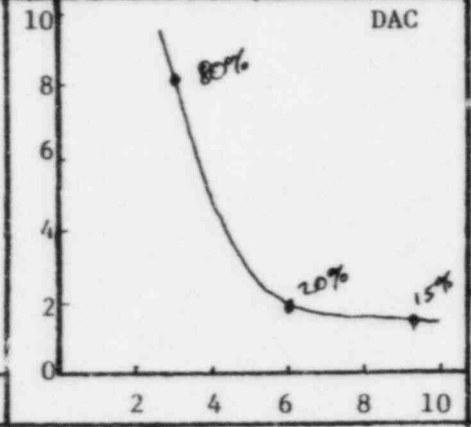
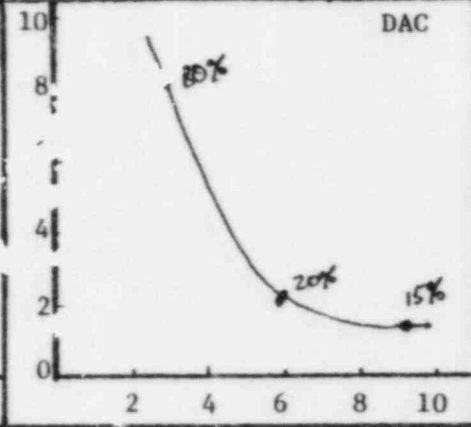
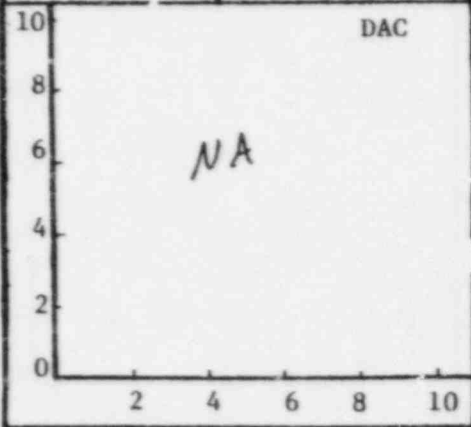
Customer L P + L	Plant Waterford	Unit 3	Loop/Zone 2/51	Iso/Drawing No. Zone 51, R2, FC. 8
Procedure ISI-2.7, R.O, FC. 4	Exam Surface O.D.	Examiner/Level Kevin White/II	VCR Supervisor Kevin White	Date 12/14/82
Component/Piping System Shutdown Cooling from Loop 2, Class 3	Pipe Size 14"	Weld Type Butt	Cal. Block # UT-119	Couplant: Sonotrace 400 Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number 4

Transducer	0°	45°	60°	Instrument				
	S/N	NA	G07152	NA	Mfr.	Sonics	Model	Mark I
Size		1/2"			S/N	05304E	RepRate	1K
Frequency		2.25 MHz			Reject	off	Filter	Med.
Beam Angle	↓	44°	↓		Damp	Min	Coax	6 BNC-MD
					Freq.	2	Video	None

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.0	NA		NA	NA	2:30 PM	4:00 PM	NA	NA
2T			20%	6.0			20%	6.0								
3T			15%	9.0			15%	9.2								
Ref. dB	NA		38db				43db									



Additional Comments/Sketch
None

M.R. Martin, ANEI 12-14-82

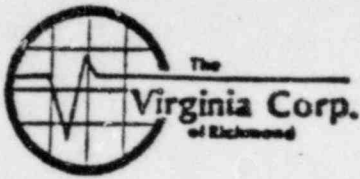


Ultrasonic Examination Report - Continuation Sheet

Page of

Customer LP&L	Plant Watertford	Unit 3	Loop/ Zone 1/52	Iso/Drawing No. Zone 52, R.2, F.C. 8
Procedure ISI-2.7, RORCY	Exam Surface O.O.	Examiner/Level Kevin White / II	VCR Supervisor Kevin White	Date 12-4-82
Component/Piping System Class 2 Shutdown Cooling from Loop 1	Pipe Size 14"	Weld Type Butt	Cal. Block UT-119	Couplant: Type & Batch # Sonotrace 40, #812Y

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
S1013	Yes	Yes	Yes	Yes	Par	O scan - Partial because of the weld transition causing loss of contact.	Clean	ground	NT	Sat	None



M.R. Martin, ANEI 12-14-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 2/521@
Component/Piping System Shutdown Cooling from Loop 2, Class 2		Examiner/Level Kevin White PE	Date 12-7-82
Procedure ISI-2.5, RD, FC 1	Iso/Drawing No. Zone 5, R2, FC 8	VCR Supervisor Kevin White	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. Sonic	Model Mark I	Mfgr. Aerotech	Size 1/2"	Cal. Block UT-119 (1.125")
S/N 01930E	Reject off	Freq. 2.25 MHz		Cal. Block
Damp. Min.	Serial No. KB2654			Range Cal. 1.875"
Freq. 2	Coax. Cable 6' BNC-PC			Calibration Checks
Rep. Rate 1K	Gain 74db			IN: 2:10 PM
Filter off Med (K)				OUT: 4:32 PM
Video Norm				
Couplant Scottrace 40, # 8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
5T-003	2	1.144"	1.238"	1.163"					
	4	1.163"	1.125"	1.163"					
	6	1.313"	1.200"	1.181"					
	8	1.350"	1.350"	1.238"					
	10	1.294"	1.200"	1.200"					
✓	12	1.294"	1.144"	1.163"					

Sketch/Identification

Ultrasonic Examination Report



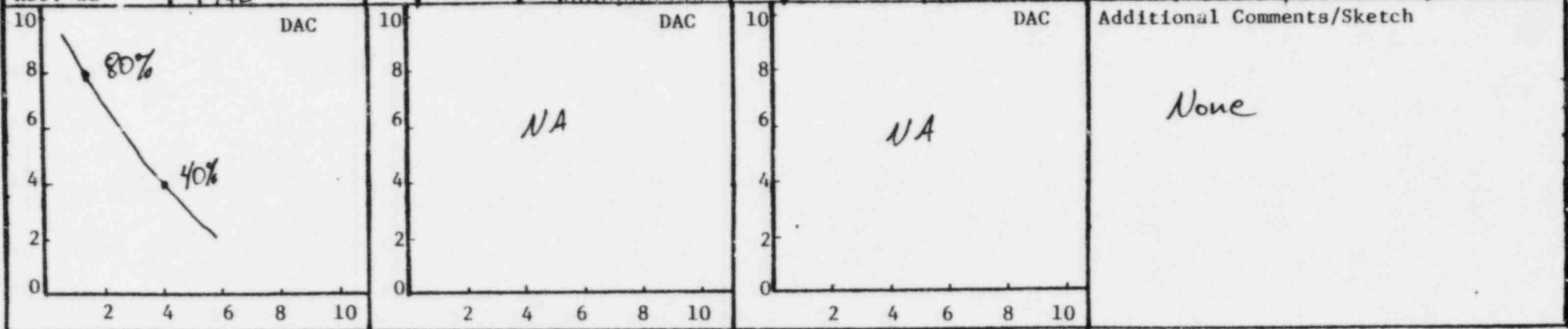
Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 2/51	Iso/Drawing No. Zone 51, R.2, F.C. 8
Procedure ISI-2.7, RO, FGH	Exam Surface O.D.	Examiner/Level Kevin White/II	VCR Supervisor Kevin White	Date 12-7-82
Component/Piping System Shutdown Cooling from Loop 2	Class 2	Pipe Size 14"	We Type Butt	Cal. Block # UT-119
			Couplant: Sonotrace Type 40	Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number 4

Transducer			Instrument			
	0°	45°	60°			
S/N	KB2657	NA	NA	Mfer.	Sonic	Model Mark I
Size	12			S/N	0930E	RepRate 1K
Frequency	2.25 MHz			Reject	off	Filter Med
Beam Angle	0°			Damp	Min	Coax 6' BNC-PC
				Freq.	2	Video Norm

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1/4T	80%	1.1	NA	NA	NA		NA	NA	NA		2:10PM	4:32PM	NA	NA	NA	NA
3/4T	40%	40														



W.R. Martin, ANII 12-17-82

Ultrasonic Examination Report



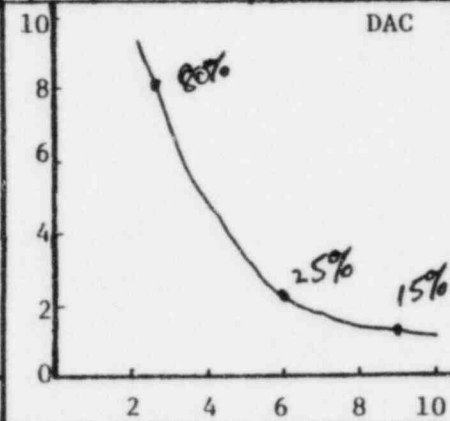
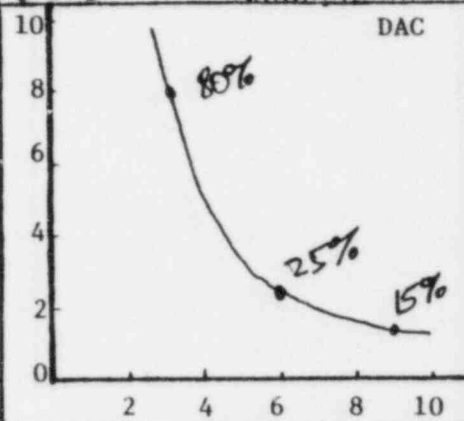
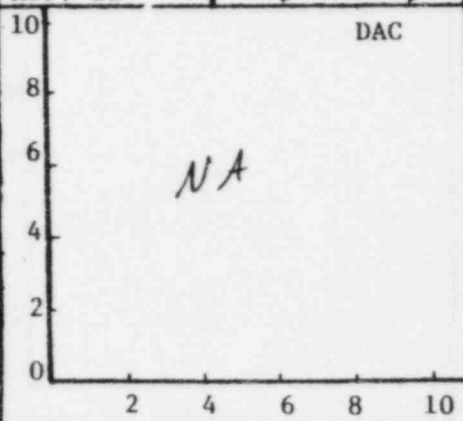
Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>2/S1</i>	Iso/Drawing No. <i>Zone S1, R2, FC. 8</i>
Procedure <i>ISI-2.7, R.O, FC. 4</i>	Exam Surface <i>OD.</i>	Examiner/Level <i>Kevin White</i>	VCR Supervisor <i>Kevin White</i>	Date <i>12-7-82</i>
Component/Piping System <i>Shutdown Cooling from Loop 2</i>	Class <i>2</i>	Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-119</i>
			Couplant: Type <i>Sonotrace 40</i>	Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *4*

Transducer	0°	45°	60°	Instrument			
S/N	<i>NA</i>	<i>607152</i>	<i>NA</i>	Mfg.	<i>Sonic</i>	Model	<i>Mark I</i>
Size		<i>1/2"</i>		S/N	<i>0530YE</i>	RepRate	<i>1KHz</i>
Frequency		<i>2.25MHz</i>		Reject	<i>off</i>	Filter	<i>Med</i>
Beam Angle		<i>44°</i>		Damp	<i>Min.</i>	Coax	<i>6' Blk-Md.</i>
				Freq.	<i>2</i>	Video	<i>Norm</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1T</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3.0</i>	<i>NA</i>		<i>80%</i>	<i>3.0</i>	<i>NA</i>		<i>NA</i>	<i>NA</i>	<i>2:20PM</i>	<i>4:36PM</i>	<i>NA</i>	<i>NA</i>
<i>2T</i>			<i>25%</i>	<i>6.0</i>			<i>25%</i>	<i>6.1</i>								
<i>3T</i>			<i>15%</i>	<i>9.0</i>			<i>15%</i>	<i>9.1</i>								
Ref. dB			<i>38db</i>				<i>45db</i>									



Additional Comments/Sketch
None



W.R. Martin, ANEF 12-17-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 2/51
Component/Piping System Shutdown Cooling from Loop 2	Examiner/Level Kevin White III	Date 12-13-82	
Procedure ISI-2.5, R.O, FC. 1	Iso/Drawing No. Zone S1, R.2, FC. 8	VCR Supervisor Kevin White	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. Sonic	Mfgr. Aerotech	Size 1/2"	Cal. Block UT-119 (1.125")	
Model Mark I			Cal. Block	
S/N 01930E	Freq. 2.25 MHz		Range Cal. 1.875"	
Reject off	Serial No. KB-2654		Calibration Checks	
Damp. Min			IN: 1:10	
Freq. 2	Coax. Cable 6' PC-BNC		OUT: 200	
Rep. Rate 3K	Gain 74db			
Filter off				
Video Norm				
Couplant Sonotrace 40, #8124				

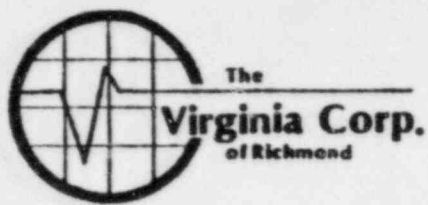
Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
51-026	2	1.313"	1.200"	1.350"	N/A	N/A	N/A	N/A	N/A
	4	1.313"	1.275"	1.500"					
	6	1.313"	1.275"	1.388"					
	8	1.200"	1.275"	1.313"					
	10	1.275"	1.238"	1.388"					
✓	12	1.238"	1.238"	1.388"					
N/A	N/A	N/A	N/A	N/A					

Sketch/Identification

M.R. Martin, ANIF 12-17-82

Ultrasonic Examination Report



Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone 2/51	Iso/Drawing No. ZONE 51 REV. 2 F.C. 8
Procedure ISI-Z.7 RO.F.C.4	Exam Surface O.D.	Examiner/Level Kevin White III	VCR Supervisor Kevin White	Date 12-13-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 2		Pipe Size 14"	Weld Type BUTT	Cal. Block # UT-119
		Couplant: SONOTRACE		Batch No. 8124

Continuation Sheet Attached
 Yes No

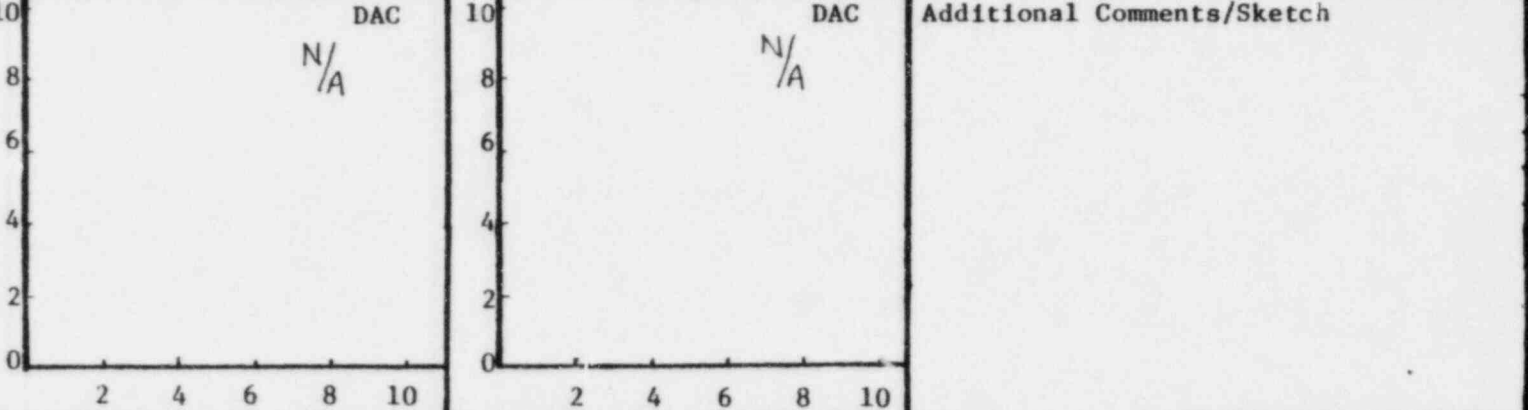
Field Changes:
 Yes No
 If Yes, Number **4**

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	KB2654	N/A	N/A	Mfr.	SONIC	Model	MARK I
	1/2"			S/N	01930E	RepRate	3K
	2.25MHz			Reject	OFF	Filter	OFF
	0°	↓	↓	Damp	MIN	Coax	6' BNC TO PC

Calibration 0° 2 & 5 Scan 7 & 8 Scan Freq. **2** Video **NORM**

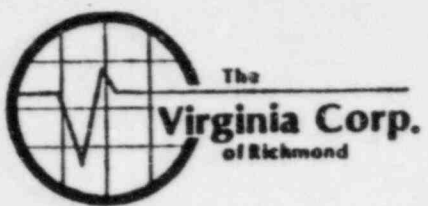
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			Calibration Checks					
					Scribe Line	50% DAC				Scribe Line	50% DAC		0°		45°		60°	
						In	Out				In	Out	In	Out				
1/4T	80%	1.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1:10	2:00	N/A	N/A	N/A	N/A	
3/4T	70%	40																

Ref. dB 74 db



W.R. Martin, ANFI 12-17-82

Ultrasonic Examination Report



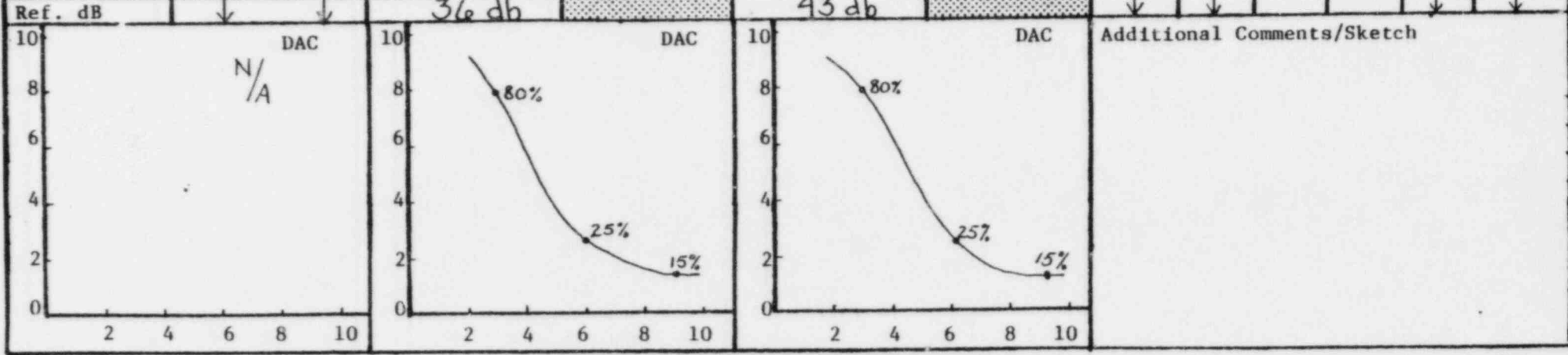
Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone 2/51	Iso/Drawing No. ZONE 51 REV. 2 F.C. 8
Procedure ISI-27R.O.F.C.4	Exam Surface O.D.	Examiner/Level <i>Kevin White III</i>	VCR Supervisor <i>Kevin White</i>	Date 12-13-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 2	Pipe Size 14"	Weld Type BUTT	Cal. Block # UT-119	Couplant: SONOTRACE Type 40 Batch No 8124

Continuation Sheet Attached
 Yes No

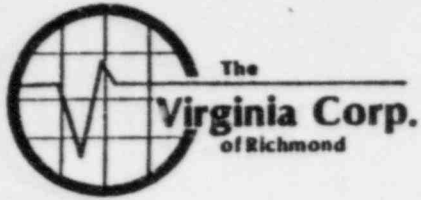
Field Changes:
 Yes No
 If Yes, Number **4**

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	N/A	G07152	N/A	Mfr.	SONIC	Model	MARK I
		1/2"		S/N	05304E	RepRate	3K
		2.25MHz		Reject	OFF	Filter	OFF
		44°		Damp	MIN	Coax	6' BNC to MD

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks										
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°		
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out	
1T	N/A	N/A	80%	3.0	N/A	N/A	N/A	80%	3.0	N/A	N/A	N/A	N/A	N/A	N/A				
2T			25%	6.0				25%	6.1										
3T			15%	9.0				15%	9.2										



W.R. Martin, ANSE 12-17-82



Ultrasonic Examination Report - Continuation Sheet

Page **of**

Customer LP+L	Plant Waterford	Unit 3	Loop/ Zone 2/51	ISO/Drawing No. Zone 51, R.2, FC, 8
Procedure ISI-2.7, R.O.F.C.Y	Exam Surface O.D.	Examiner/Level Kevin White/II	VCR Supervisor Kevin White	Date 12-13-82
Component/Piping System Shutdown Cooling from Loop 2		Pipe Size 14"	Weld Type Butt	Cal. Block UT-11A
Couplant: Type & Batch # Sonotrac 40 #8124				

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
51026	Par	Yes	Yes	Yes	Par	*Base metal scan - partial because of a gouge 3/8x 5/32" causing loss of contact, located 5/2" from O 2" from E on the S side. O scan partial because of the weld transition on the S side causing loss of contact.	*gouge	ground	NI	*gouge	See the inspection limitations for the gouge.



M.A. Martin, ANSI 7-7-83
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 2/51
Component/Piping System Shutdown Cooling from loop 2, Class 2		Examiner/Level Kevin White III	Date 7-5-83
Procedure ISI-2.5, R1	Iso/Drawing No. Zone 51, R.5	VCR Supervisor Daniel Jensen	Continuation Sheet Attached Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Equipment

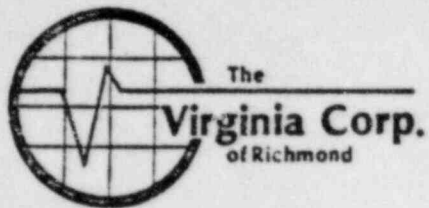
Instrument		Transducer		Calibration
Mfgr. Sonics	Mfgr. KB-Aerotech	Size .25"	Cal. Block UT-104/UF105	
Model Mark I			Cal. Block	
S/N 02307E	Freq. 2.25 MHz		Range Cal. 1"	
Reject off	Serial No. KB-2844		Calibration Checks	
Damp. Min			IN: 1:15	
Freq. 2	Coax. Cable 6' BNC-PC		OUT: 2:50	
Rep. Rate 3K	Gain 85db			
Filter High				
Video Norm				
Complant Sonotrace 40.8225				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
51-001	12	.500	.420	.500	51-002	12	.520	.480	.420
	2	.500	.420	.500		2	.460	.420	.420
	4	.520	.450	.520		4	.500	.500	.450
	6	.500	.460	.540		6	.500	.480	.460
	8	.460	.450	.500		8	.500	.450	.450
↓	10	.520	.440	.510	↓	10	.460	.500	.440
readings in inches									

Sketch/Identification

Note: No volumetric examination required.
 .375 Nominal wall



Liquid Penetrant

D. Payne ANII 5/13/82
Examination Report

Customer <i>LPEL</i>	Plant <i>WATERFORD</i>		Unit <i>III</i>	Loop/Zone <i>#1/52</i>	
Procedure <i>ISI. 3.1. REV. 0 FC. 2</i>	Examiner/Level <i>Penny Duffy L.II</i>			Date <i>5-11-82</i>	
Component/Piping System <i>SHUTDOWN VALVE FROM LOOP #1</i>	ISO Drawing No. <i>ZONE #52 LOW Z. FC-0</i>		VCO Supervisor <i>Daniel Jones</i>		
Manufacturer		Type	Batch No.		
Penetrant	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>47L015</i>		
Developer	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>129-FC</i>		
Remover	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>112-C4</i>		
Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>52-017</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



The Virginia Corp.
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Liquid Penetrant
D. Payne ANII 5/13/82
Examination Report

Customer <i>LPL</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1/52</i>
Procedure <i>ISI 3.1 R.O.F.C.2</i>	Examiner/Level <i>Robert J. Overstreet II</i>	Date <i>5-12-82</i>	
Component/Piping System <i>Shutdown Cooling from loop 1</i>	ISO Drawing No. <i>ZONE 52 R.O.F.C.2 RJO</i>	VER Supervisor <i>Daniel J. ...</i>	

	Manufacturer	Type	Batch No.
Penetrant	Sherwin	Dubl-check	47L015
-Developer	Sherwin	Dubl-check	129F6
Remover	Sherwin	Dubl-check	112C4 NJO TH24

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>52-001</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-002</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-003</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-010</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-023</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-023</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



The
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Liquid Penetrant
D. Payne ANZI 5/17/82
Examination Report

Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>III</i>	Loop/Zone <i>1/52</i>		
Procedure <i>I.S.I 3.1. Rev 0 FC-2</i>	Examiner/Level <i>Payne Huff - III</i>	Date <i>5/13/82</i>			
Component/Piping System <i>SHUTDOWN COOLING FROM Loop 1</i>	ISO Drawing No. <i>ZONE # 52 Rev. 2 FC-0</i>	WTR Supervisor <i>David Jones</i>			
	Manufacturer	Type	Batch No.		
Penetrant	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>47 L015</i>		
Developer	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>129-F-6</i>		
Remover	<i>SHERWIN</i>	<i>DUBL-CHEK</i>	<i>112-C-4</i>		
Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>52-012</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-013</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-014</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-015</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-025</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-033</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-034</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-039</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-040</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

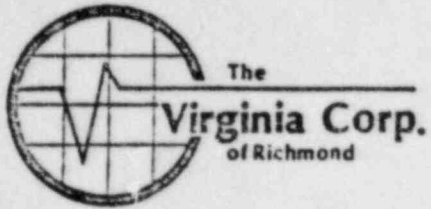


Liquid Penetrant
D. Payne ANII 5/17/82
 Examination Report

Customer LP&L		Plant WATERFORD		Unit III	Loop/Zone 1/52
Procedure I.S.I 3.1 REV-0 FC-2		Examiner/Level Billy Acuff L-II			Date 5-14-82
Component/Piping System SHUT DOWN FROM LOOP 1		ISO Drawing No. ZONE #52 REV-2 FC-0		VOR Supervisor Donal Jones	

	Manufacturer	Type	Batch No.
Penetrant	SHERWIN	DUBL-CHEK	47L015
Developer	SHERWIN	DUBL-CHEK	129-F6
Remover	SHERWIN	DUBL-CHEK	112-C4

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT	UNSAT
52-018		✓		✓	
52-019		✓		✓	
52-021		✓		✓	
52-024		✓		✓	
52-026		✓		✓	
52-027		✓		✓	
52-028		✓		✓	
52-030		✓		✓	
52-031		✓		✓	
52-032		✓		✓	
52-037		✓		✓	
52-041		✓		✓	
52-046		✓		✓	
52-038		✓		✓	



Liquid Penetrant
D. Payne ANZI 6/9/82
 Examination Report

Customer <i>LPCL</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1/52</i>
Procedure <i>TKM 0049</i> <i>TSI-3.1, Rev 2, FC 2</i>	Examiner/Level <i>Payne / L.II</i>	Date <i>5-17-82</i>	
Component/Piping System <i>Shutdown Cooling from loop #1</i>	ISO Drawing No. <i>Zone 52, Rev 2, FC 0</i>	VCR Supervisor <i>Daniel Jones</i>	

	Manufacturer	Type	Batch No.
Penetrant	<i>Sherwin</i>	<i>Dubl-check</i>	<i>47-L015</i>
Developer	<i>Sherwin</i>	<i>Dubl-check</i>	<i>129-F6</i>
Remover	<i>Sherwin</i>	<i>Dubl-check</i>	<i>112-C4</i>

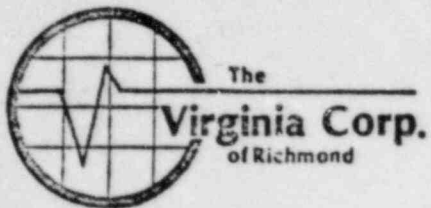
Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>52-035</i>		<i>✓</i>		<i>✓</i>	
<i>52-055LA-54</i>		<i>✓</i>		<i>✓</i>	
<i>52-055LA-56</i>		<i>✓</i>		<i>✓</i>	
<i>52-059LA-58</i>		<i>✓</i>		<i>✓</i>	
<i>52-065</i>		<i>✓</i>		<i>✓</i>	
<i>52-067</i>		<i>✓</i>		<i>✓</i>	
<i>52-069</i>		<i>✓</i>		<i>✓</i>	
<i>52-71</i>		<i>✓</i>		<i>✓</i>	



The
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Liquid Penetrant
D. Payne ANII 1/9/82
Examination Report

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1/52</i>		
Procedure <i>WRTM O WPS</i> <i>ISE-3.1 Rev D FC.2 WRTM</i>	Examiner/Level <i>Barry Reilly LII</i>	Date <i>5-19-82</i>			
Component/Piping System <i>Shutdown Cooling From Loop 1</i>	ISO Drawing No. <i>Zone 52, Rev 2, FCO</i>	VCA Supervisor <i>Daniel Lyons</i>			
	Manufacturer	Type	Batch No.		
Penetrant	<i>Sherwin</i>	<i>Dubl-check</i>	<i>474015</i>		
Developer	<i>Sherwin</i>	<i>Dubl-check</i>	<i>129 F6</i>		
Remover	<i>Sherwin</i>	<i>Dubl-check</i>	<i>112-C4</i>		
Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>52-044</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-045 LA-44</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-051 LA-52</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-063 LA-65</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-066 LA-65</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-066 LA-67</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-068 LA-69</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>53-068 LA-67</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

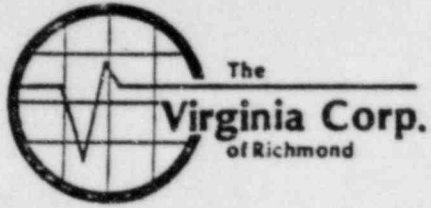


Liquid Penetrant
D. Payne ANZI 6/9/82
Examination Report

Customer	LPEL	Plant	Waterford	Unit	3	Loop/Date	1/52
Procedure	OSD WRM	Examiner/Level	Barry A. ... I-ET	Date	5-21-82		
TSE-3.1, Rev 2, F.C. 2		ISO Drawing No.		VCR Supervisor			
Component/Piping System		Zone 5d, Rev 2, F.C. 0		Daniel L. Jones			
Shutdown Cooling From Loop 1							

	Manufacturer	Type	Batch No.	
Penetrant	Sherwin	Dubl+chek	476015	
Developer	Sherwin	Dubl+chek	129 F6	
Remover	Sherwin	Dubl+chek	112-C4	

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
52-0592A-60		✓		✓	



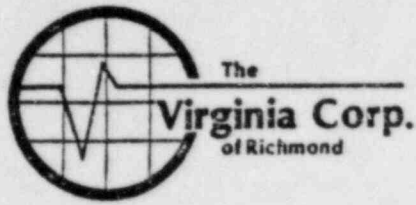
Liquid Penetrant
D. Payne ANIE 6/9/82
Examination Report

Customer LPEL	Plant WATERFORD	Unit III	Loop/Zone 1/52
Procedure I.S.I. 3.1. REV. 2 FC-2	Examiner/Level Paul A. Hill / L-II		Date 5-22-82

Component/Piping System Shutdown Cooling From Loop #1	ISO Drawing No. Zone #52 Rev. 2 FC-0	VGR Supervisor Daniel Jones
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	Manufacturer	Type	Batch No.
Penetrant	SHERWIN	DUBL-CHEK	97LO15
Developer	SHERWIN	DUBL-CHEK	129F6
Remover	SHERWIN	DUBL-CHEK	112C4

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT	UNSAT.
52-061-4A-60		f		f	
52-070-4A-6A		f		f	
52-070-4A-71		f		f	



Liquid Penetrant

D. Payne ANET 6/11/82

Examination Report

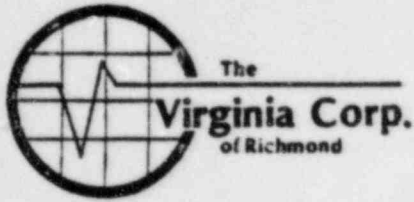
Customer LP & L Plant Waterford Unit 3 Loop/Zone 1/52

Procedure ISI 3.1 Rev 0 FC 2 Examiner/Level Mike Frank II Date 6-9-82

Component/Piping System Shutdown Cooling from Loop 1 ISO Drawing No. MCM 100 VCR Supervisor Daniel Jones

	Manufacturer	Type	Batch No.
Penetrant	Sherwin	Dubl-Check	47L-015
Developer	Sherwin	Dubl-Check	129-F6
Remover	Sherwin	Dubl-Check	225-B4

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
52-004		✓		✓	
52-005		✓		✓	
52-006		✓		✓	
52-007		✓		✓	



Liquid Penetrant
D. Payne ANII 6/15/82
Examination Report

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1-52</i>
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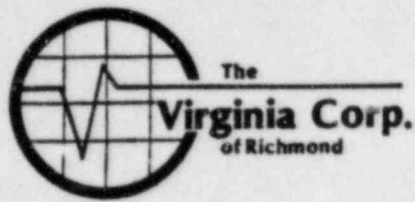
Procedure <i>ISI 3.1 Rev. 0 FC 2</i>	Examiner/Level <i>C. Lewis / Frank II</i>	Date <i>6-14-82</i>
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Component/Piping System <i>Shutdown Cooling from Loop 1</i>	ISO Drawing No. <i>Zone 52 Rev. 2 F.C. 1</i>	VCR Supervisor <i>Donal Jones</i>
--	---	--------------------------------------

	Manufacturer	Type	Batch No.
Penetrant	<i>Sherwin</i>	<i>Dubl-Chek</i>	<i>47L-015</i>
Developer	<i>Sherwin</i>	<i>Dubl-Chek</i>	<i>129-F6</i>
Remover	<i>Sherwin</i>	<i>Dubl-Chek</i>	<i>225-B4</i>

Weld Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>52-WS-3-1</i>	<i>*</i>	✓		✓	
<i>52-WS-3-2</i>	<i>*</i>	✓		✓	
<i>52-WS-4-1</i>	<i>*</i>	✓		✓	
<i>52-WS-4-2</i>	<i>*</i>	✓		✓	
<i>52-WS-5</i>		✓		✓	
<i>52-WS-6</i>	<i>*</i>	✓		✓	
<i>52-WS-9-1</i>	<i>*</i>	✓		✓	
<i>52-WS-9-2</i>	<i>*</i>	✓		✓	

** SEE ERRATA SECTION OF FINAL REPORT FOR CORRECTION.*



Liquid Penetrant
D. Payne ANII 7/19/82
Examination Report

Customer <i>LP/L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>1/52</i>
Procedure <i>1513.1 R.P. F.C. X</i>	Examiner/Level <i>Chris E. Foye II</i>	Date <i>7-16-82</i>	
Component/Piping/System <i>SHUT DOWN Cooling Coils 2</i>	ISO Drawing No. <i>Zone 52 RZ, F.C. 1</i>	VCR Supervisor <i>[Signature]</i>	

	Manufacturer	Type	Batch No.
Penetrant	<i>SHERWIN INC</i>	<i>DURAL CHEK</i>	<i>47L015</i>
Developer	<i>SHERWIN INC</i>	<i>DUAL - CHEK</i>	<i>129 F6</i>
Remover	<i>SHERWIN INC</i>	<i>DUAL - CHEK</i>	<i>225 B4</i>

Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>52-0161A-62</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-062</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<i>52-063LA-62</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



The
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M.R. Martin, ANIE 12-6-82
Liquid Penetrant

Examination Report

Customer LPiL	Plant WATERFORD	Unit 3	Loop / Zone 1 52	
Procedure ISI 3.1 REV 0 FC4	Examiner/Level James Weathers	Date 11-11-82		#
Component/Piping System SHUTDOWN COOLING FROM LOOP 1, CLASS 2	ISO Drawing No. ZONE 52 REV 2 FC78	VCR Supervisor Daniel Jensen		
	Manufacturer	Type	Batch No.	
Penetrant	SHERWIN	DUWL-CHEK	476 015	
Developer	SHERWIN	DUWL-CHEK	129 F6	
Remover	SHERWIN	DUWL-CHEK	225 B4	
Weld/Item Number	Comments		PT Results	
			NRI	RI
52-015-900	RE-EXAMINED DUE TO REMOVAL AND REPLACEMENT OF NEW WELD		✓	✓



The Virginia Corp. of Richmond

Mr. R. Martin, ANFF 12-6-82
Liquid Penetrant

Examination Report

Customer: LP&H Plant: Waterford Unit: 3 Loop/Zone: 1/52

Procedure: IST 3.1, R.D., E.C. 4 Examiner/Level: Chris E. Forspahl II Date: 11-13-82

Component/Piping System: Shutdown Cooling from loop, Class 2 ISO Drawing No.: Zone 52, R.D. E.C. 78 VCR Supervisor: Kevin White

	Manufacturer	Type	Batch No.
Penetrant	Sherwin	Dubl-check	476-015
Developer	Sherwin	Dubl-check	117 K/a
Remover	Sherwin	Dubl-check	225 B4

Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
52-019-900	Reexamined after cutout & replacement of weld	✓		✓	



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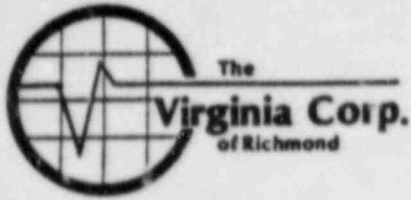
M.R. Martin, ANSI 12-6-82
Liquid Penetrant

Examination Report

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop / Zone <i>1 / 52</i>
Procedure <i>ISI-3.1 R.O.F.C. 4</i>	Examiner/Level <i>Robert J. Orestant II</i>	Date <i>11-16-82</i>	
Component/Piping System <i>Shutdown Cooling from loop</i>	ISO Drawing No. <i>Zone 52 R.O.F.C. 8</i>	VCR Supervisor <i>Kevin White</i>	

	Manufacturer	Type	Batch No.
Penetrant	<i>Sherwin</i>	<i>Dubl-Chek</i>	<i>472015</i>
Developer	<i>Sherwin</i>	<i>Dubl-Chek</i>	<i>129 F6</i>
Remover	<i>Sherwin</i>	<i>Dubl-Chek</i>	<i>22584</i>

Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
<i>52-017-900</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	



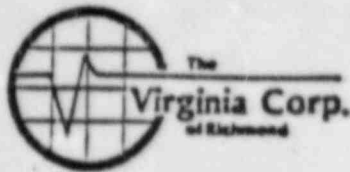
G.R. Martin, ANSI 12-17-82
Liquid Penetrant

Examination Report

Customer LP&L	Plant Wateford	Unit 3	Loop/Zone 1/52
Procedure 151-3.1 RO FG 4 ^{NRM}	Examiner/Level Jamie R Sliter II	Date 12-15-82	
Component/Piping System Shutdown Cooling	ISO Drawing No. zone 52 B2 FC9	VCR Supervisor Kevin White	

	Manufacturer	Type	Batch No.
Penetrant	Sherwin	Dubl-Chek	47L-015
Developer	Sherwin	Dubl-Chek	129 F6
Remover	Sherwin	Dubl-Chek	225 B4

Weld/Item Number	Comments	PT Results		VT Results	
		NRI	RI	SAT.	UNSAT.
52-WS-13-1		X		X	
52-WS-13-2		X		X	
52-WS-13-3		X		X	
52-WS-13-4		X		X	
52-WS-13-5		X		X	
52-WS-13-6		X		X	
52-WS-13-7		X		X	
52-WS-13-8		X		X	



W.R. Martin, ANIS 10-14-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer <i>LPAL</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>NA 52</i>
Component/Piping System <i>SHUTDOWN cooling FROM LOOP 1, CLASS 2</i>		Examiner/Level <i>James G. [unclear] IV</i>	Date <i>10-8-82</i>
Procedure <i>ISE 2.5 REV-O FC-0</i>	Iso/Drawing No. <i>ZONE 52 REV2 FC-3</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>SONIC</i>	Mfgr. <i>PANAMETRK</i>	Size <i>.25"</i>	Cal. Block <i>UT-113</i>	
Model <i>MARK I</i>	Size <i>.25"</i>	Cal. Block		
S/N <i>05304E</i>	Freq. <i>5 MHz</i>	Range Cal. <i>.600"</i>		
Reject <i>OFF</i>	Serial No. <i>49931</i>	Calibration Checks		
Damp. <i>MIN</i>	Coax. Cable <i>6' BNC TO PC</i>	<i>IN : 10:47</i>		
Freq. <i>5</i>	Gain <i>58 DB</i>	<i>OUT : 11:31</i>		
Rep. Rate <i>3K</i>		<i>IN : 1:11</i>		
Filter <i>H1</i>		<i>OUT : 2:21</i>		
Video <i>NORM</i>				
Couplant <i>SONOTRACE 40 PA: 8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>52-031</i>	<i>12</i>	<i>.330"</i>	<i>.552"</i>	<i>.324"</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>52-031</i>	<i>2</i>	<i>.384"</i>	<i>.552"</i>	<i>.324"</i>					
<i>52-031</i>	<i>4</i>	<i>.354"</i>	<i>.354"</i>	<i>.324"</i>					
<i>52-031</i>	<i>6</i>	<i>.348"</i>	<i>.348"</i>	<i>.324"</i>					
<i>52-031</i>	<i>8</i>	<i>.360"</i>	<i>.516"</i>	<i>.324"</i>					
<i>52-031</i>	<i>10</i>	<i>.366"</i>	<i>.516"</i>	<i>.324"</i>					

Sketch/Identification

W.R. Martin, ANSI 10-1-82



Ultrasonic Examination Report

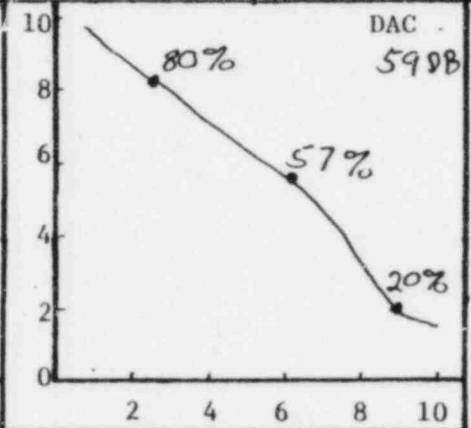
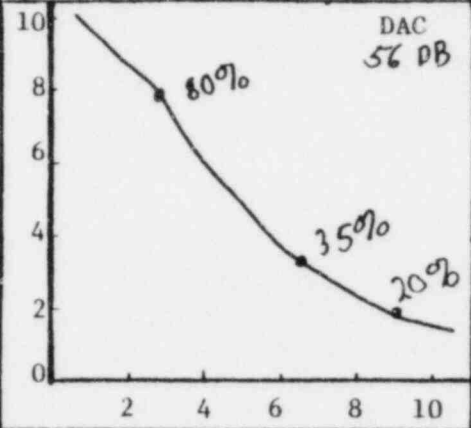
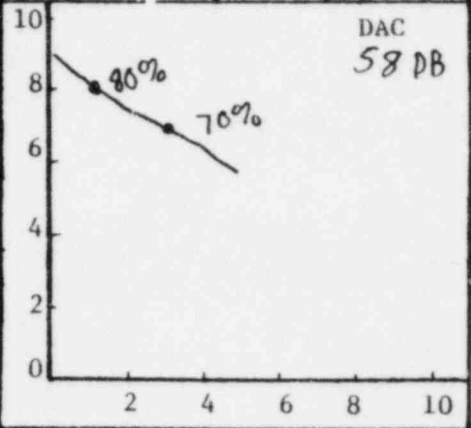
Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone NA 52	Iso/Drawing No. ZONE 52 REV-2 FC-3
Procedure ISI 2.7 REV-0 FC-3	Exam Surface O.D.	Examiner/Level James Grant III	VCR Supervisor Daniel Jensen	Date 10-8-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 1 CLASS 2		Pipe Size 8"	Weld Type BUTT	Cal. Block UT-113
			Couplant: SONOTRACE	Type 40
			Batch No. 8124	

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **3**

Transducer	0°	45°	60°	Instrument			
	S/N 49931	H25132	NA	Mfgt. SONIC	Model MARK I	RepRate 3K	
	Size .25"	.25"		S/N 05304E	Filter HI	Coax 6 BNC TO MO	
	Frequency 50 MHZ	2.25 MHZ		Reject OFF	Video NORM		
	Beam Angle 0	45°		Damp MIN			

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	0°		45°		60°	
					Scribe Line	50% DAC				In	Out	In	Out	In	Out
1/4 T	80%	1.2			NA	NA	NA			10:47	11:31	2:38	4:49	NA	NA
3/4 T	70%	3.6								1:11	2:21				
1 T	NA	6.0													
1 T			80%	3.0				80%	3.2						
2 T			35%	6.6				57%	6.4						
3 T			20%	9.0				20%	9.6						
Ref. dB	58 DB		56 DB					59 DB							



Additional Comments/Sketch

W.R. Martin, ANIS 10-14-82



Ultrasonic Examination Report - Continuation Sheet Page of

Customer <i>LPIL</i>	Plant <i>HATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>AA 52</i>	Iso/Drawing No. <i>ZONE 52 RZ FC 3</i>
Procedure <i>ISI-27 RO FC3</i>	Exam Surface <i>O.D</i>	Examiner/Level <i>James W. Hunt ANII</i>	VCR Supervisor <i>Daniel Jense</i>	Date <i>10-8-82</i>
Component/Piping System <i>SHUTDOWN COOLING FROM LOOP 1 (CLASS 2)</i>	Pipe Size <i>8"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-113</i>	Couplant: Type & Batch # <i>SONOTRACE 40 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>52-031</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>		<i>SMOOTH</i>	<i>GROUND</i>	<i>R1</i>	<i>SAT</i>	<i>NPIS ALSO FOUND</i>

W.R. Martin, ANII 10-14-82



The Virginia Corp.
of Richmond

Ultrasonic Examination Report

Indication Record

Customer <i>LP/L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop <i>NA</i>
Procedure <i>ISI 2.7 RO FC3</i>	Examiner/Level <i>James O'Neil LVII</i>	VCR Supervisor <i>Samuel Jensen</i>	Date <i>10-8-82</i>
Component/Piping System <i>SHUTDOWN COOLING FROM LOOP 1 (CLASS 2)</i>		ISO Drawing No. <i>ZONE 52 R2 FC3</i>	Cal. Standard No./Thickness <i>UT-113 .360"</i>

Weld No.	Ind No.	Max.% DAC	Indication Length		Minimum Depth		Maximum Depth		Beam Angle	Beam Dir.	Base Metal Thickness 2 Side	Weld Thick.	Base Metal Thickness 5 Side	Remarks
			From	To	S.U. Pos.	Sweep Reading	S.U. Pos.	Sweep Reading						
<i>52-031</i>	<i>1</i>	<i>70%</i>	<i>26 1/2"</i>	<i>10"</i>	<i>5/8" (5)</i>	<i>2.8</i>	<i>6/8" (5)</i>	<i>3.1</i>	<i>45°</i>	<i>5</i>	<i>.552"</i>	<i>.384"</i>	<i>.324"</i>	<i>TOTAL CIRCUMFERENCE OF WELD IS 27 1/2"</i>



M.R. Martin, ANSE 10-14-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP4L	Plant WATERFORD	Unit 3	Loop/Zone NA 52
Component/Piping System SHUTDOWN COOLING FROM LOOP 1, CLASS 2	Examiner/Level <i>Camilla Lukut VII</i>	Date 10-9-82	
Procedure ISI 2.5 REV-0 FC-0	Iso/Drawing No. ZONE 52 REV-2 FC-3	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

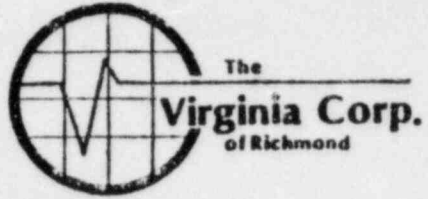
Instrument		Transducer		Calibration
Mfgr. SONIC	Mfgr. PANAMETRIC	Size .25"	Cal. Block UT-113	
Model MARK 2	Freq. 5 MHZ	Cal. Block		
S/N 05304E	Serial No. 49931	Range Cal. .600"		
Reject OFF	Coax. Cable 6' BNC TO PC	Calibration Checks		
Damp. MIN	Gain 58 DB	IN: 7:45		
Freq. 5		OUT: 8:30		
Rep. Rate 3K				
Filter HI				
Video NORM				
Couplant SONOTRACE 40 SA : 8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
52-027	12	.390"	.318"	TEE	NA	NA	NA	NA	NA
52-027	2	.420"	.324"	CONNECTION					
52-027	4	.432"	.336"						
52-027	6	.390"	.300"						
52-027	8	.396"	.300"						
52-027	10	.420"	.300"						

Sketch/Identification

M.R. Martin, ANFI 10-1-82



Ultrasonic Examination Report

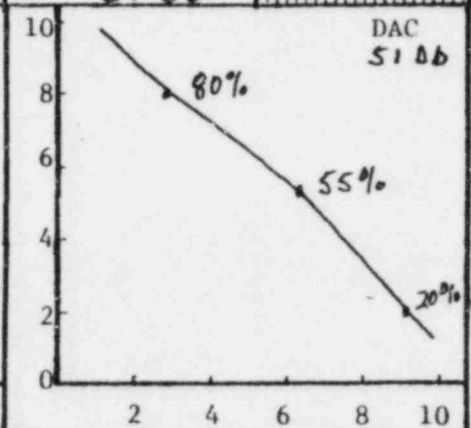
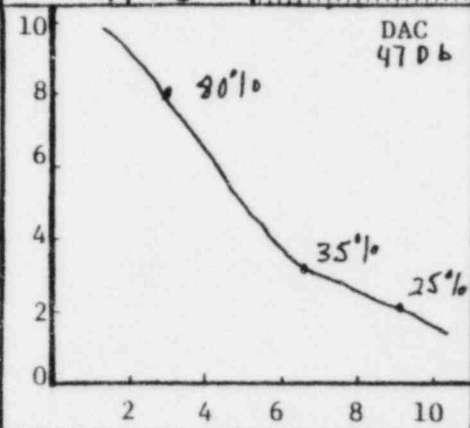
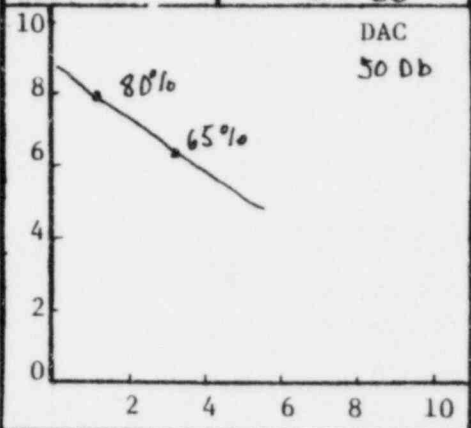
Customer LP/L	Plant WATERFORD	Unit 3	Loop/Zone NA 52	Iso/Drawing No. ZONE 52 R2 FC3
Procedure ISI 2.7 R0 FC 3	Exam Surface 0.0	Examiner/Level Norman Wright LVII	VCR Supervisor Daniel Jensen	Date 10-9-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 1 (CLASS 2)		Pipe Size 8"	Weld Type BUTT	Cal. Block UT-113
			Couplant: SONOTEC	Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **3**

Transducer	Instrument		
	0°	45°	60°
	S/N 49931	H25132	NA
	Size .25"	.25"	
Frequency	5.0 MHz	2.25 MHz	
Beam Angle	0°	45°	<input checked="" type="checkbox"/> 60°
		Mfr. SONIC	Model MARK I
		S/N 05304E	RepRate 3K
		Reject OFF	Filter H1
		Damp MIN	Coax 6" BNC TO PD
		Freq. 5.0(0°) 2.0(45°)	Video NORM

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1/4T	80%	1.2														
3/4T	65%	3.6														
1T		6.0														
1T			80%	3.0			80%	3.2								
2T			35%	6.6			55%	6.4								
3T			25%	9.0			20%	9.6								
Ref. dB	50 Db		47 Db				51 Db									



Additional Comments/Sketch

W.R. Martin, ANII 10-14-82



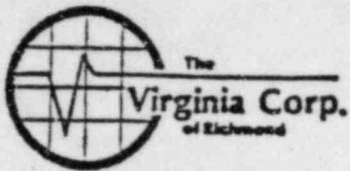
The Virginia Corp.
of Richmond

Ultrasonic Examination Report - Continuation Sheet

Page of

Customer <i>LPIL</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>NA 52</i>	Iso/Drawing No. <i>ZONE 52 R2 FC3</i>
Procedure <i>ISI-2.7 R0 FC3</i>	Exam Surface <i>O.D</i>	Examiner/Level <i>James Weir LWII</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-9-82</i>
Component/Piping System <i>SHUTDOWN COOLING FROM Loop 1 (CL942)</i>	Pipe Size <i>8"</i>	Weld Type <i>ROUT</i>	Cal. Block <i>UT-113</i>	Couplant: Type & Batch # <i>SONOTRACE 40 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>52-027</i>	<i>PAR</i>	<i>PAR</i>	<i>NO</i>	<i>PAR</i>	<i>PAR</i>	<i>TEE CONNECTION AT JOE OF WELD 5 SIDE. WELD CROWN ON 2 SIDE.</i>	<i>SMOOTH</i>	<i>GROUNDED</i>	<i>NR1</i>	<i>SAT</i>	
						<i>I.D GEOMETRY 360° AROUND 50% TO 65% OF DIA. 1/2" FROM TEE CONNECTION, SEARCH UNIT POSITION & OF WELD. 3.0 SWEEP READING. SCANNING IN 2 DIRECTION</i>					



W.R. Martin, ANII 10-26-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer L P & L	Plant WATERFORD	Unit 3	Loop/Zone NA/52
Component/Piping System SHUTDOWN COOLING LOOP 1	Examiner/Level Michael W. Blaw II	Date 10-14-82	
Procedure ISI-2.5 R.O	Iso/Drawing No. ZONE 52 R2 PC.4	VCR Supervisor Daniel Jensen	Continuation Sheet Attached [] Yes [x] No

Equipment

Instrument		Transducer		Calibration
Mfgr. SONIC	Mfgr. AEROTECH	Size .50" DIA.	Cal. Block UT-119	
Model MARK I	Freq. 5.0 MHz	Serial No. KB2897	Cal. Block	
S/N 0105AC	Coax. Cable 6' BNC-PC	Gain 64 db	Range Cal. 1.875"	
Reject OFF	Gain		Calibration Checks	
Damp. MIN			IN 8:20	
Freq. 5.0			OUT 10:45	
Rep. Rate 3K			IN 12:08	
Filter OFF			OUT 4:00	
Video NORM				
Couplant SONDTRAC 40 7/8 8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
52-026	12	1.350"	TEE	1.163"	NA	NA	NA	NA	NA
52-026	2	1.313"		1.163"					
52-026	4	1.276"		1.163"					
52-026	6	1.313"		1.125"					
52-026	8	1.313"		1.144"					
52-026	10	1.313"	↓	1.200"					
52-041	12	1.369"	1.181"	TEE					
52-041	2	1.388"	1.181"						
52-041	4	1.350"	1.181"						
52-041	6	1.313"	1.181"						
52-041	8	1.294"	1.219"						
52-041	10	1.313"	1.181"	↓	↓	↓	↓	↓	↓

Sketch/Identification

M.R. Martin, ANII 10-26-82



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Ultrasonic Examination Report

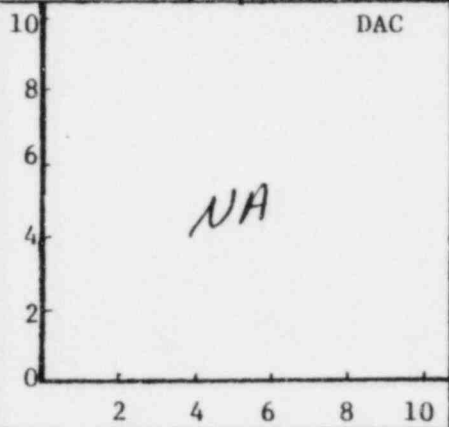
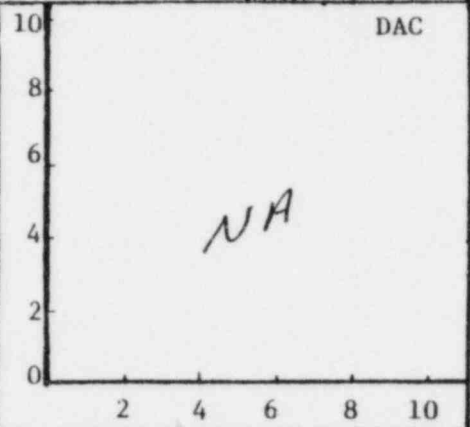
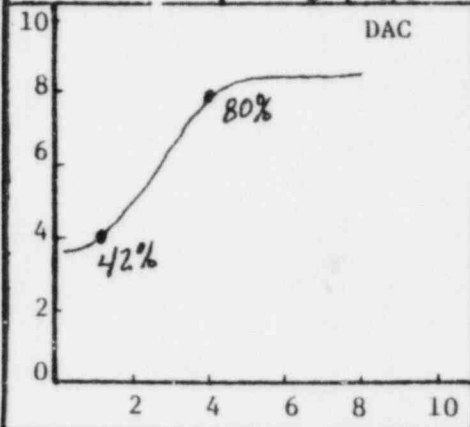
Customer <i>LP&L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>NA/52</i>	Iso/Drawing No. <i>ZONE 52 REV 2 FC. 4</i>
Procedure <i>ISI-2.7 R.O FC3</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Michael W. Blaw II</i>	VCR Supervisor <i>Daniel J. Dena</i>	Date <i>10-14-82</i>
Component/Piping System <i>SHUTDOWN Cooling Loop I</i>	Pipe Size <i>14"</i>	Weld Type <i>BUTT</i>	Cal. Block # <i>UT-119</i>	Couplant: <i>50 NOTRACE</i> Type <i>40</i> Batch No <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
Yes No
If Yes, Number *3*

Transducer	0°	45°	60°	Instrument			
	S/N <i>KB2897</i>	<i>NA</i>	<i>NA</i>	Mfr. <i>SONIC</i>	Model <i>MARK I</i>	RepRate <i>3K</i>	
	Size <i>.50" DIA</i>			S/N <i>01058E</i>	Filter <i>OFF</i>	Coax <i>6' BNC-PC</i>	
	Frequency <i>5.0MHz</i>			Reject <i>MIN</i>	Video <i>NORM</i>		
Beam Angle <i>0°</i>				Freq. <i>5.0</i>			

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks								
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°		
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out	
<i>1/4 T</i>	<i>42%</i>	<i>1.2</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>12:08</i>	<i>4:00</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4 T</i>	<i>80%</i>	<i>4.0</i>																	
<i>1 T</i>		<i>6.0</i>																	
Ref. dB	<i>64 db</i>																		



Additional Comments/Sketch

M.R. Martin, ANII 10-26-82



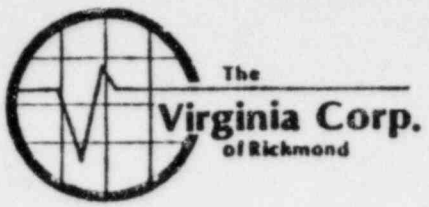
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Ultrasonic Examination Report - Continuation Sheet

Customer L P & L	Plant WATERFORD	Unit 3	Loop/ Zone NA / 52	Iso/Drawing No. ZONE 52 R.2 FC.4
Procedure ISI-2.7 R.D FC.3	Exam Surface O. D.	Examiner/Level Michael W. Blaw II	VCR Supervisor Daniel J. Givens	Date 10-14-82
Component/Piping System SHUTDOWN COOLING LOOP 1	Pipe Size 14"	Weld Type BUTT	Cal. Block UT-119	Couplant: Type & Batch # SONOTRACE 40 1/2 8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
SZ-026	PAR	NA	NA	NA	PAR	TEE AND PARTIAL DUE TO WELD CROWN. APPROX 10% LOSS OF CONTACT AT TOE OF WELD	CLEAN	Ground	NI	SAT	
SZ-041	PAR	NA	NA	NA	PAR	TEE AND PARTIAL DUE TO WELD CROWN APPROX 5% LOSS OF CONTACT AT TOE OF WELD	CLEAN	Ground	NI	SAT	

Ultrasonic Examination Report



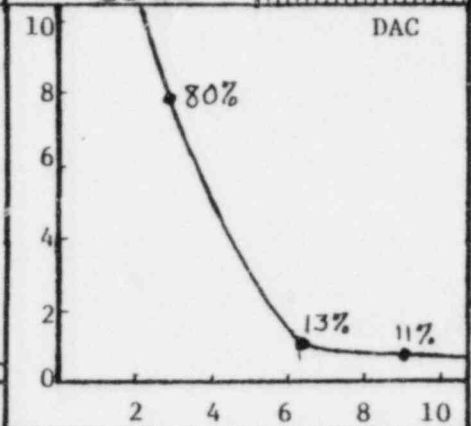
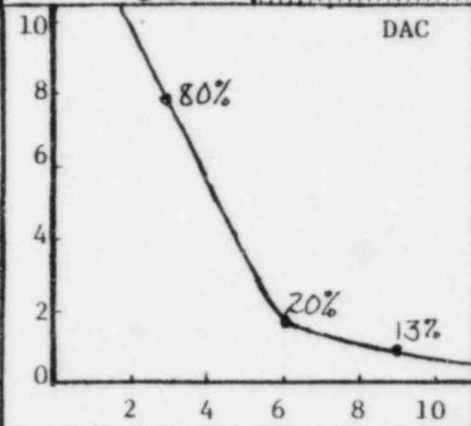
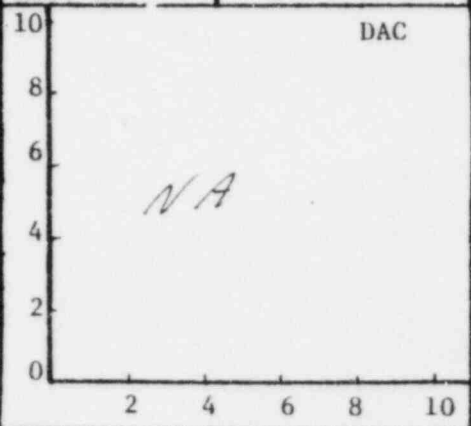
Customer <i>L P + L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>162 2/52</i>	Iso/Drawing No. <i>Zone 52 R.2 F.C. 4</i>
Procedure <i>ISI 2.7 R.O.F.C. 3</i>	Exam Surface <i>O. S.</i>	Examiner/Level <i>Nary Longenecker II</i>	VCR Supervisor <i>Daniel Dene</i>	Date <i>10-14-82</i>
Component/Piping System <i>Shutdown Cooling Loop 2</i>	Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-119</i>	Couplant: <i>Sonotrace</i> Type <i>40</i> Batch No <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *3*

Transducer	0°	45°	60°	Instrument			
S/N	<i>NA</i>	<i>607152</i>	<i>NA</i>	Mfr.	<i>Sonic</i>	Model	<i>Mark 1</i>
Size		<i>.50"</i>		S/N	<i>01930E</i>	RepRate	<i>3K</i>
Frequency		<i>2.25MHZ</i>		Reject	<i>off</i>	Filter	<i>H1</i>
Beam Angle		<i>45°</i>		Damp.	<i>Min</i>	Coax	<i>6' BNC-MD</i>
				Freq.	<i>2MHZ</i>	Video	<i>Norm</i>

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks									
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
<i>1T</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3.0</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3.0</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>2:55</i>	<i>4:45</i>	<i>NA</i>	<i>NA</i>
<i>2T</i>			<i>20%</i>	<i>6.0</i>				<i>13%</i>	<i>6.1</i>									
<i>3T</i>			<i>13%</i>	<i>9.0</i>				<i>11%</i>	<i>9.2</i>									



Additional Comments/Sketch



The Virginia Corp.
of Richmond

Ultrasonic Examination Report - Continuation Sheet

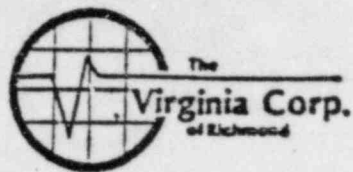
Page of

Customer *LP+L* Plant *WATERFORD* Unit *3* Loop/Zone *1/26 52* Iso/Drawing No. *Zone 52 R-2 F.C.4*

Procedure *ISI 2.7 R0 AC.3* Exam Surface *O.O.* Examiner/Level *Nary Koncencika II* VCR Supervisor *Daniel Jans* Date *10-14-82*

Component/Piping System *Shutdown Cooling Loop 2* Pipe Size *14"* Weld Type *Butt* Cal. Block *UT-119* Complant: Type & Batch # *Sonotrace 40 8124*

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
52-026	NA	NO	YES	PAR	NA	* 1	Clean	Ground	NI	SAT	
52-041	NA	YES	NO	PAR	NA	* 2	Clean	Ground	NI	SAT	
						* 1 2 Scan, No due to tee connection. 7+8 Scans, Par due to tee connection on the 2 side.					
						* 2 5 Scan, No due to tee connection. 7+8 Scans, Par due to tee connection on the 5 side.					



W.R. Martin, ANII 10-25-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>4/A/52</i>
Component/Piping System <i>Shutdown Cooling Line from Loop 1</i>	Examiner/Level <i>Doug A. Sabin II</i>	Date <i>10-16-82</i>	
Procedure <i>SI-2.5 R.O F.C.1</i>	Iso/Drawing No. <i>ZONE 52 R.O F.C.4</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument	Transducer		Calibration
Mfgr. <i>SONIC</i>	Mfgr. <i>Panametrics</i>	Size <i>.5"</i>	Cal. Block <i>UT-119</i>
Model <i>Mark 1</i>			Cal. Block
S/N <i>05304E</i>	Freq. <i>3.5 MHz</i>		Range Cal. <i>1.607"</i>
Reject <i>OFF</i>			Calibration Checks
Damp. <i>MIN</i>	Serial No. <i>41874</i>		
Freq. <i>2 MHz</i>			<i>IN 12:40</i>
Rep. Rate <i>3K</i>	Coax. Cable <i>4' BNC to P/C</i>		<i>OUT 2:20</i>
Filter <i>OFF</i>			
Video <i>Normal</i>	Gain <i>43 db</i>		
Couplant <i>SONOtrace 40 #8124</i>			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
52-022	12	1.333	1.382	1.221	52-024	12	1.301	1.285	1.189
52-022	2	1.301	1.285	1.285	52-024	2	1.253	1.350	1.237
52-022	4	1.350	1.382	1.285	52-024	4	1.125	1.333	1.125
52-022	6	1.269	1.494	1.221	52-024	6	1.317	1.317	1.237
52-022	8	1.285	1.414	1.157	52-024	8	1.317	1.317	1.092
52-022	10	1.350	1.350	1.157	52-024	10	1.285	1.301	1.205
52-023	12	1.253	1.221	1.542	52-025	12	1.157	1.221	1.285
52-023	2	1.221	1.221	1.478	52-025	2	1.125	1.205	1.301
52-023	4	1.173	1.253	1.301	52-025	4	1.125	1.221	1.350
52-023	6	1.221	1.237	1.350	52-025	6	1.125	1.221	1.333
52-023	8	1.157	1.221	1.317	52-025	8	1.108	1.205	1.350
52-023	10	1.221	1.205	1.494	52-025	10	1.108	1.510	1.301

Sketch/Identification

M.R. Martin, ANEI 10-25-82



Ultrasonic Examination Report

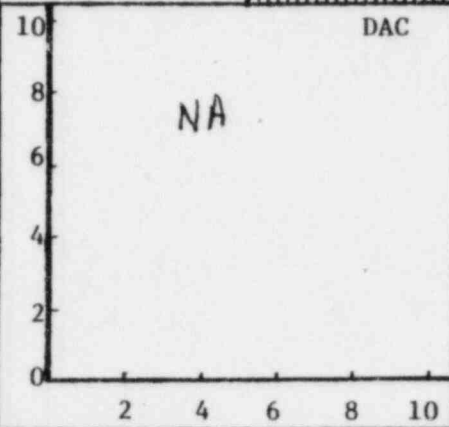
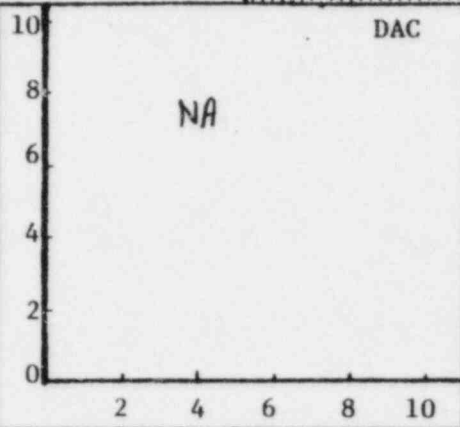
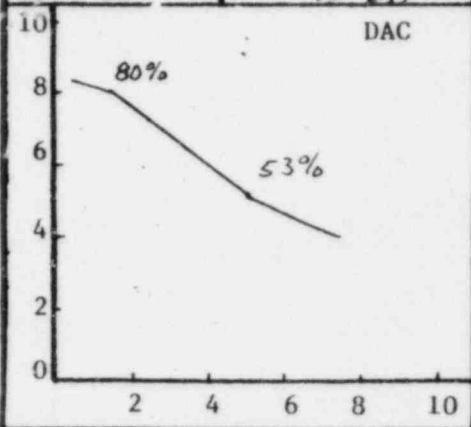
Customer <i>L.P.L.</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>NA/52</i>	Iso/Drawing No. <i>Zone 52 R.2 FC-4</i>
Procedure <i>ISI-2.7 R.O.F.C-4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>Doug A. Salska II</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-16-82</i>
Component/Piping System <i>Shutdown Cooling from Loop 1</i>		Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-119</i>
		Couplant: <i>Type Soap 40 Batch No. 8124</i>		

Continuation Sheet Attached
 Yes No

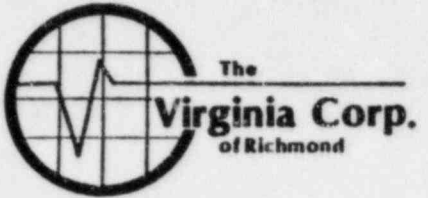
Field Changes:
 Yes No
 If Yes, Number *FC-4*

Transducer	Instrument		
	S/N	Size	Frequency
<i>0°</i>	<i>41874</i>	<i>1/2"</i>	<i>3.5 MHz</i>
<i>45°</i>	<i>NA</i>		
<i>60°</i>	<i>NA</i>		
Instrument			
Mfr.	Model	RepRate	Mark I
<i>Sonic</i>	<i>05304E</i>	<i>3K</i>	
Reject	Filter	Coax	Video
<i>OFF</i>	<i>OFF</i>	<i>6' BNC-PC</i>	<i>Norm</i>
Damp	Freq.	Video	Norm
<i>Min</i>	<i>2 MHz</i>		

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1/4T</i>	<i>80%</i>	<i>1.4</i>	<i>NA</i>	<i>NA</i>			<i>NA</i>	<i>NA</i>			<i>12:40</i>	<i>2:20</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4T</i>	<i>53%</i>	<i>4.7</i>														
<i>1T</i>	<i>NA</i>	<i>7.0</i>														



Additional Comments/Sketch

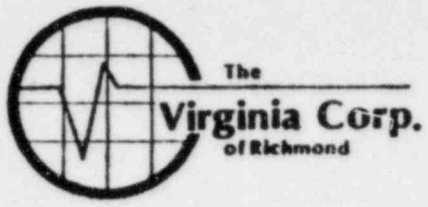


Ultrasonic Examination Report - Continuation Sheet Page **of**

Customer LP+L	Plant Waterford	Unit 3	Loop/ Zone NA / 52	Iso/Drawing No. Zone 52 R-2 FC-4
Procedure ISI-2.7 R.D.F.C-Y	Exam Surface O.D.	Examiner/Level Harry A. Lottus II		VCR Supervisor Daniel Jensen
Component/Piping System Shutdown Cooling from Loop 1		Pipe Size 14"	Weld Type Butt	Date 10-16-82
			Cal. Block UT-119	Couplant: Type & Batch # Sono 40 * 8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
52-022	Yes	NA	NA	NA	Yes		Smooth Ground	NI	Sat		
52-023	Yes	NA	NA	NA	Yes		Smooth Ground	NI	Sat		
52-024	Yes	NA	NA	NA	Yes		Smooth Ground	NI	Sat		
52-025	Yes	NA	NA	NA	Yes		Smooth Ground	NI	Sat		

M.R. Martin, ANII 10-25-82



Ultrasonic Examination Report

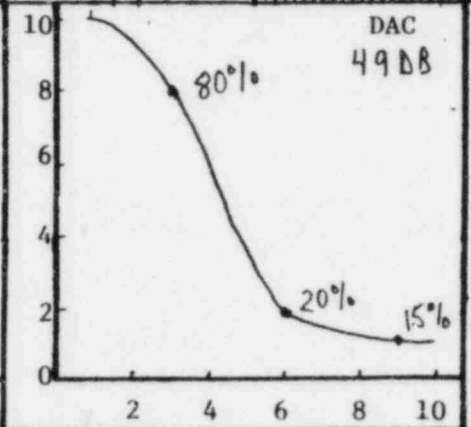
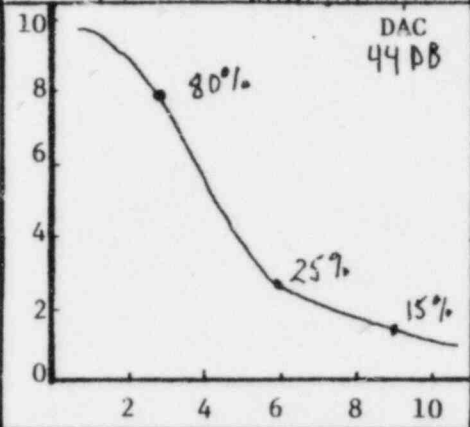
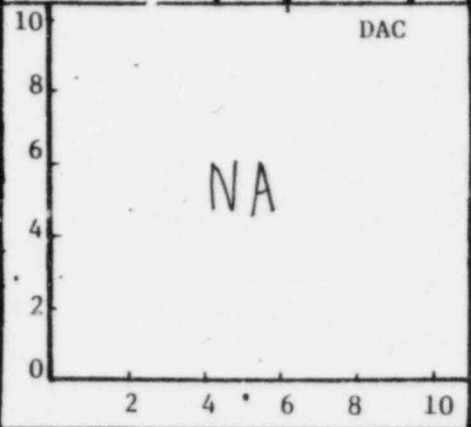
Customer LP: L	Plant WATERFORD	Unit 3	Loop/Zone 1 52	Iso/Drawing No. ZONE 52 REV 2 FC 4
Procedure ISI 2.7 REV 0 FC 4	Exam Surface O.D.	Examiner/Level James [Signature] LVII	VCR Supervisor Daniel Jensen	Date 10-16-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 1, CLASS 2	Pipe Size 14"	Weld Type BUTT	Cal. Block UT-119	Couplant: SONO TRACE Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **4**

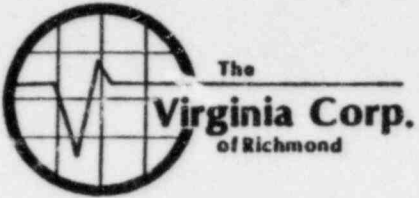
Transducer	0°	45°	60°	Instrument			
S/N	NA	D22063	NA	Mfr.	SONIC	Model	MARK I
Size		.50"		S/N	03704E	RepRate	3K
Frequency		2.25 MHz		Reflect	OFF	Filter	OFF
Beam Angle	↓	45°	↓	Damp	MIN	Coax	6' BAL TO MD
				Freq.	2.0 MHz	Video	NORM

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.0	NA		NA	NA	12:54	4:05	NA	NA
2T			25%	6.0			20%	6.0								
3T			15%	9.0			15%	9.0								



Additional Comments/Sketch

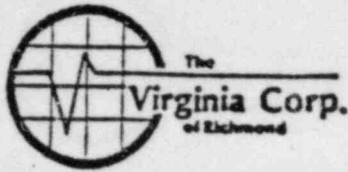
W.R. Martin, ANEF 10-25-82



Ultrasonic Examination Report - Continuation Sheet

Customer <i>hpib</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/ Zone <i>1 52</i>	Iso/Drawing No. <i>ZONE 52 REV 2 FC4</i>
Procedure <i>ISI 2.7 REV 0 FC4</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>James West LVII</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>10-16-82</i>
Component/Piping System <i>SHUTDOWN COOLING FROM LOOP 1 CLASS 2</i>	Pipe Size <i>14"</i>	Weld Type <i>BUTT</i>	Cal. Block <i>UT-119</i>	Couplant: Type & Batch # <i>SONOTRACE 40 8124</i>

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
<i>52-022</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>	<i>SMOOTH</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT</i>		
<i>52-023</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>	<i>SMOOTH</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT</i>		
<i>52-024</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>	<i>SMOOTH</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT</i>		
<i>52-025</i>	<i>NA</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>	<i>NA</i>	<i>SMOOTH</i>	<i>GROUND</i>	<i>NI</i>	<i>SAT</i>		



M.R. Martin, ANII 10-25-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP&L	Plant Waterford	Unit 3	Loop/Zone NA/52
Component/Piping System Shutdown Cooling from loop 1	Examiner/Level Gary A. Lottner II	Date 10-18-82	
Procedure ISI 2.5, R.O, F.C. 1	Iso/Drawing No. Zone 52, A.2, F.C. 4	VCR Supervisor Daniel Jones	Continuation Sheet Attached <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. Sonic	Mfgr. Panametrics	Size .5"	Cal. Block UT-119	Cal. Block NA
Model FTS Mark I	Freq. 3.5 Mhz	Serial No. 41874	Range Cal. 1.607"	Calibration Checks
S/N 023075	Coax. Cable 6' BNC-PC	Gain 45 dB	IN: 8:35 AM	OUT: 11:45 AM
Reject off	Rep. Rate 3 K	Filter off	IN: 12:55 PM	OUT: 3:22 PM
Damp. Min	Video Norm	Couplant Senotrace 40, B.#8124		

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
52-004	12	1.157"	*	1.253"	52-013	12	1.333"	1.398"	1.269"
	2	1.141"	*	1.189"		2	1.333"	1.301"	1.237"
	4	1.157"	*	1.285"		4	1.366"	1.317"	1.205"
	6	1.189"	*	1.430"		6	1.253"	1.366"	1.221"
	8	1.221"	*	1.285"		8	1.173"	1.430"	1.269"
	10	1.205"	*	1.205"		10	1.366"	1.430"	1.285"
52-012	12	1.317"	1.269"	1.559"	52-014	12	1.317"	1.237"	1.382"
	2	1.317"	1.237"	1.333"		2	1.253"	1.253"	1.333"
	4	1.269"	1.285"	1.414"		4	1.253"	1.237"	1.317"
	6	1.317"	1.205"	1.494"		6	1.285"	1.205"	1.398"
	8	1.317"	1.205"	1.333"		8	1.221"	1.205"	1.430"
	10	1.285"	1.221"	1.301"		10	1.350"	1.237"	1.398"

Sketch/Identification

* Tee Connection



Ultrasonic Data Sheet
G.R. Martin for ANFI 10/25/82
Thickness Measurement
 Continuation Page 2 of 2

Customer <i>L P & L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>N/A/52</i>
Component/Piping System <i>Shutdown Cooling From loop 1</i>	Examiner/Level <i>Harry A. Lofgren II</i>	Date <i>10-18-82</i>	
Procedure <i>ISI 2.5 R.O. F.C. 1</i>	Iso/Drawing No. <i>Zone 52, R. 2, F.C. 4</i>	VCR Supervisor <i>Daniel Jensen</i>	

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>52-015</i>	<i>12</i>	<i>1.350"</i>	<i>1.253"</i>	<i>1.253"</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
	<i>2</i>	<i>1.333"</i>	<i>1.269"</i>	<i>1.285"</i>					
	<i>4</i>	<i>1.285"</i>	<i>1.237"</i>	<i>1.269"</i>					
	<i>6</i>	<i>1.382"</i>	<i>1.189"</i>	<i>1.205"</i>					
	<i>8</i>	<i>1.382"</i>	<i>1.189"</i>	<i>1.189"</i>					
	<i>10</i>	<i>1.366"</i>	<i>1.237"</i>	<i>1.253"</i>					

Sketch/Identification



Ultrasonic Examination Report

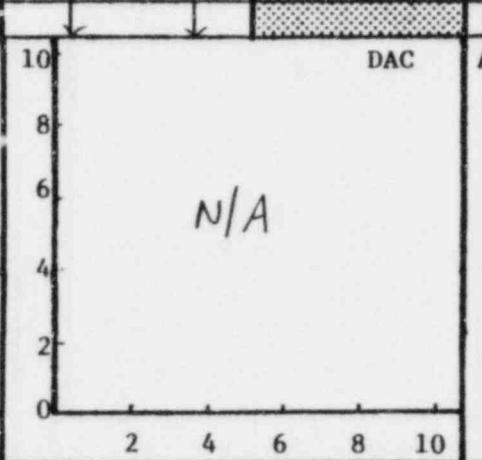
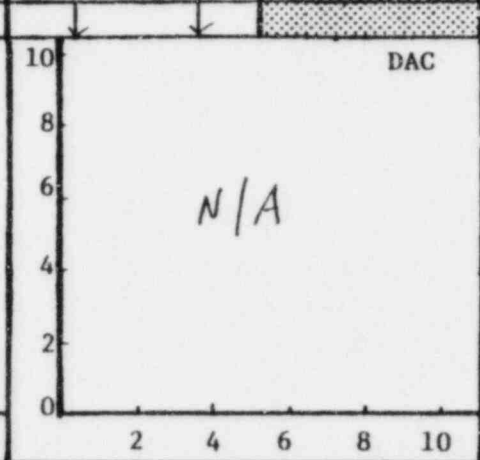
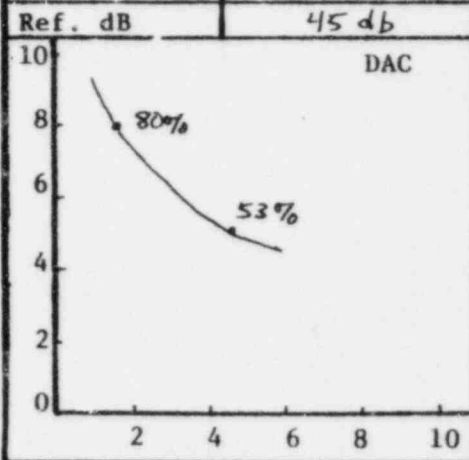
Customer LP+L		Plant Waterford		Unit 3	Loop/Zone N/A/50	Iso/Drawing No. ZONE 50 R.2 F.C.4	
Procedure ISI-2.7 R.O.F.C.4		Exam Surface O.D.	Examiner/Level <i>May A. Lottman II</i>		VCR Supervisor <i>Daniel Jense</i>		Date 10-18-82
Component/Piping System Shutdown Cooling from loop 1			Pipe/Size 14"	Weld Type Butt	Cal. Block # UT-119	Couplant: 500 trace Type 40 Batch No. 8124	

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **F.C.4**

Transducer	0°	45°	60°	Instrument			
	S/N 41874	N/A	N/A	Mfr. SONIC	Model 00307E	RepRate 3K	Mark I 3K
	Size .5"			S/N 00307E	RepRate 3K	Filter Off	Off Off
	Frequency 3.5 MHz			Reject Off	Filter Off	Coax MIN	G'BNCTOFC Normal
	Beam Angle 0°			Damp MIN	Coax MIN	Coax MIN	Coax MIN

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
1/4T	80%	1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8:35	11:45	N/A	N/A	N/A	N/A
3/4T	53%	4.8															
1T																	



Additional Comments/Sketch

M.R. Martin, ANII 10-25-82



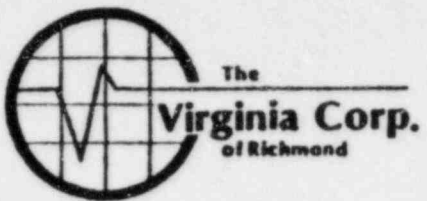
Ultrasonic Examination Report - Continuation Sheet

Page of

Customer LP+L	Plant Waterford	Unit 3	Loop/ Zone NA / 52	Iso/Drawing No. Zone 52 R2 FC-4
Procedure ISI-2.7 R2 FC-4	Exam Surface O.D.	Examiner/Level Mang D. Smith II	VCR Supervisor Daniel Jensen	Date 11-18-82
Component/Piping System Shutdown Cooling from Loop 1	Pipe Size 14"	Weld Type Butt	Cal. Block UT-119	Couplant: Type & Batch # Sonotrace 40 SN: 8124

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual	
52-004	Par	NA	NA	NA	Par	Par due to Tee Configuration on 2 side	Smooth	Ground	NI	Sat	
52-012	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	
52-013	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	
52-014	Yes	NA	NA	NA	Yes		Smooth	Ground	NI	Sat	
52-015	Yes	NA	NA	NA	Par	Par due to Weld toe Approx 10% not covered	Smooth	Ground	NI	Sat	

W.R. Martin, A.I.I.F. 10-25-82



Ultrasonic Examination Report

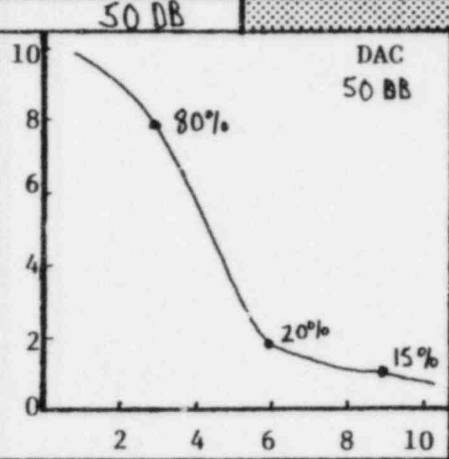
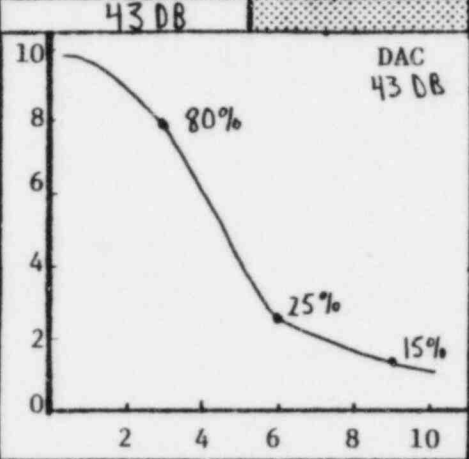
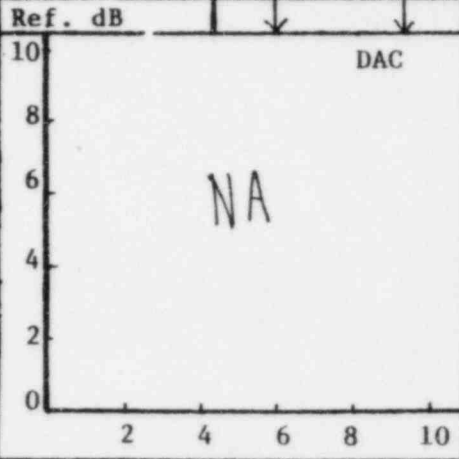
Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone 1 52	Iso/Drawing No. ZONE 52 REV 2 FC 4
Procedure ISI 2.7 REV 0 FC 4	Exam Surface O.D.	Examiner/Level James Warriff A.I.I.F.	VCR Supervisor Daniel Dena	Date 10-18-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 1 CLASS 2	Pipe Size 14"	Weld Type BUTT	Cal. Block # UT-119	Couplant: SONOTRACE Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **4**

Transducer	0°	45°	60°	Instrument			
S/N	NA	D22063	NA	Mfg.	SONIC	Model	MARK I
Size		.50"		S/N	03704E	RepRate	3K
Frequency		2.25 MHz		Reject	OFF	Filter	OFF
Beam Angle	↓	45°	↓	Damp	MIN	Coax	6' BNC TO MD
				Freq.	2.0 MHz	Video	NORM

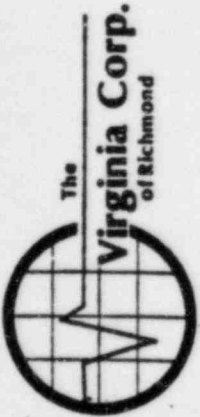
Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.0	NA		NA	NA	9:05	10:44	NA	NA
2T			25%	6.0			20%	6.0					10:56	12:06		
3T			15%	9.0			15%	9.0					1:07	4:14		



Additional Comments/Sketch

M.R. Martin, ANII 10-25-82

Ultrasonic Examination Report - Continuation Sheet Page 40 of 40



Customer	LPEL	Plant	WATERFORD	Unit	3	Loop/ Zone	1 52	Iso/Drawing No.	ZONE 52 REV 2, FC4
Procedure	ISE 2.7 REV. 0 FC4	Exam Surface	O.D.	Examiner/Level	James West LII	VCR Supervisor	Daniel Jones	Date	10-18-82
Component/Piping System	CLASS 2	Pipe Size	14"	Weld Type	BUTT	Cal. Block	UT-119	Type & Batch #	Sensit RACE 40 #8124

Weld No.	base Metal Scan	Scan Direction			Inspection Limitations	Surface Condition		Examination Results		Remarks
		2	5	7 & 8		Base Metal	Weld	UT	Visual	
52-004	NA	NO	YES	PAR	NA	0	SMOOTH	GROUND	NI	SAT
52-012	NA	YES	YES	YES	NA	0	SMOOTH	GROUND	NI	SAT
52-013	NA	YES	YES	YES	NA	0	SMOOTH	GROUND	NI	SAT
52-014	NA	YES	YES	YES	NA	0	SMOOTH	GROUND	NI	SAT
52-015	NA	YES	YES	YES	NA	0	SMOOTH	GROUND	NI	SAT



W.R. Martin, ANSI 11/4/82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit # <i>3</i>	Loop/Zone <i>1/52</i>
Component/Piping System <i>Shutdown Cooling from loop 1 class 2</i>	Examiner/Level <i>James E. Smith LV II</i>	Date <i>11-2-82</i>	
Procedure <i>ISI-2.5 Rev. 0 FL. 1</i>	Iso/Drawing No. <i>Zone 52 Rev. 2 RC. 6</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument	Transducer		Calibration
Mfgr. <i>Senic</i>	Mfgr. <i>KB-Accotech</i>	Size <i>.25"</i>	Cal. Block <i>UT-120</i>
Model <i>MAK I</i>			Cal. Block
S/N <i>05304 E</i>	Freq. <i>5.0 MHz</i>	Range Cal. <i>.360 AT 6.0</i>	
Reject <i>off</i>	Serial No. <i>KB 2141</i>	Calibration Checks	
Damp. <i>MIN</i>	Coax. Cable <i>6' BNC to PC</i>	<i>in 9:29</i>	
Freq. <i>5.0</i>	Gain <i>71 db</i>	<i>out 10:47</i>	
Rep. Rate <i>3K</i>			
Filter <i>off</i>			
Video <i>Norm</i>			
Couplant <i>sonotrac 40 Batch # 8124</i>			

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>52-058</i>	<i>12</i>	<i>.288"</i>	<i>.252"</i>	<i>.234"</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
	<i>2</i>	<i>.252"</i>	<i>.234"</i>	<i>.255"</i>					
	<i>4</i>	<i>.266"</i>	<i>.234"</i>	<i>.234"</i>					
	<i>6</i>	<i>.284"</i>	<i>.234"</i>	<i>.237"</i>					
	<i>8</i>	<i>.273"</i>	<i>.230"</i>	<i>.252"</i>					
	<i>10</i>	<i>.266"</i>	<i>.234"</i>	<i>.252"</i>					
<i>52-065</i>	<i>12</i>	<i>.280"</i>	<i>.244"</i>	<i>.234"</i>					
	<i>2</i>	<i>.306"</i>	<i>.234"</i>	<i>.234"</i>					
	<i>4</i>	<i>.252"</i>	<i>.234"</i>	<i>.230"</i>					
	<i>6</i>	<i>.280"</i>	<i>.237"</i>	<i>.241"</i>					
	<i>8</i>	<i>.270"</i>	<i>.234"</i>	<i>.237"</i>					
	<i>10</i>	<i>.288"</i>	<i>.237"</i>	<i>.234"</i>					

Sketch/Identification

M.R. Martin, ANI II 11-4-82



The Virginia Corp.
of Richmond

Ultrasonic Examination Report

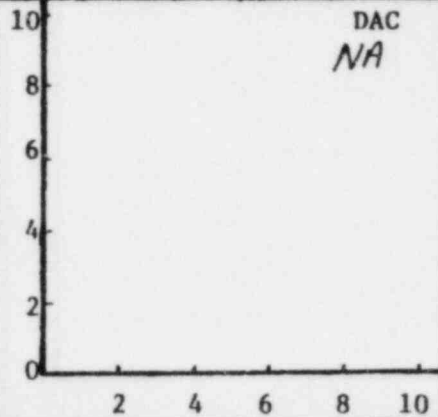
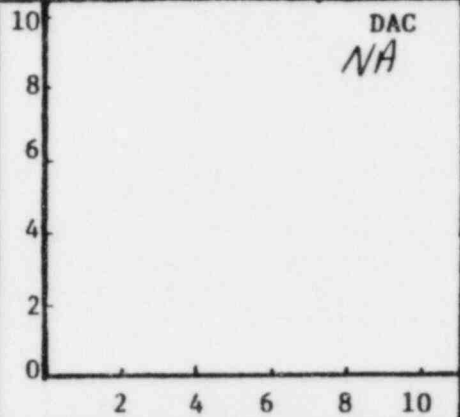
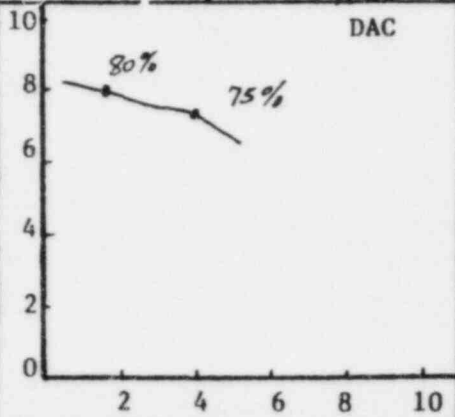
Customer <i>L P & L</i>	Plant <i>Waterford</i>	Unit <i># 3</i>	Loop/Zone <i>1/52</i>	Iso/Drawing No. <i>Zone 52 Rev. 2 FL. 6</i>
Procedure <i>ISI-2.7 Rev. 0 FL. 4</i>	Exam Surface <i>OD</i>	Examiner/Level <i>James W. Hartz</i>	VCR Supervisor <i>Daniel Jensen</i>	Date <i>11-2-82</i>
Component/Piping System <i>Shutdown Cooling from Loop 1, Class 2</i>	Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block <i>UT-120</i>	Couplant: <i>Type 40</i> Batch No. <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
Yes No
If Yes, Number *EC-4*

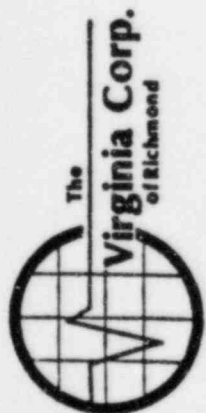
Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	<i>XB-2141</i>	<i>NA</i>	<i>NA</i>	Mfr.	<i>SONIC</i>	Model	<i>MARK I</i>
	<i>.25"</i>			S/N	<i>05304E</i>	RepRate	<i>34</i>
	<i>5.0 MHz</i>			Reject	<i>off</i>	Filter	<i>off</i>
	<i>0°</i>			Damp	<i>Min</i>	Coax	<i>6' BNC to PC</i>
				Freq.	<i>5.0</i>	Video	<i>Norm</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
<i>1/4 T</i>	<i>80%</i>	<i>1.4</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>9:29</i>	<i>10:47</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4 T</i>	<i>75%</i>	<i>4.0</i>															
<i>1 T</i>		<i>6.0</i>															
Ref. dB	<i>71 db</i>		<i>NA</i>				<i>NA</i>										



Additional Comments/Sketch

Ultrasonic Examination Report - Continuation Sheet Page of



Customer: **HP&L** Plant: **WATERFORD** Unit: **3** Loop/Zone: **1 52** Iso/Drawing No.: **ZONE 52 REV 2 FC 6**

Procedure: **ASME SEC VIII O.D.** Exam Surface: **Exam Surface** Examiner/Level: **Omar Wright VIII** VCR Supervisor: **Daniel J. Jones** Date: **11-2-82**

Component/Piping System: **SMW1000A Condensate From 400 P. J. 649152** Pipe Size: **14"** Weld Type: **BUTT** Cal. Block Couplant: **Type & Batch #**

UT-120 SODATRALE 40 8124

Weld No.	Base Metal Scan	Scan Direction	Scan Direction			Inspection Limitations	Surface Condition		Examination Results	Remarks
			2	5	7 & 8		Base Metal	Weld		
52-058	YES		NA	NA	0	SMOOTH	GROUNDED	UT NRI	SAT	
52-065	YES		NA	NA		SMOOTH	GROUNDED	UT NRI	SAT	

W.R. Martin, ANEF 12-6-82

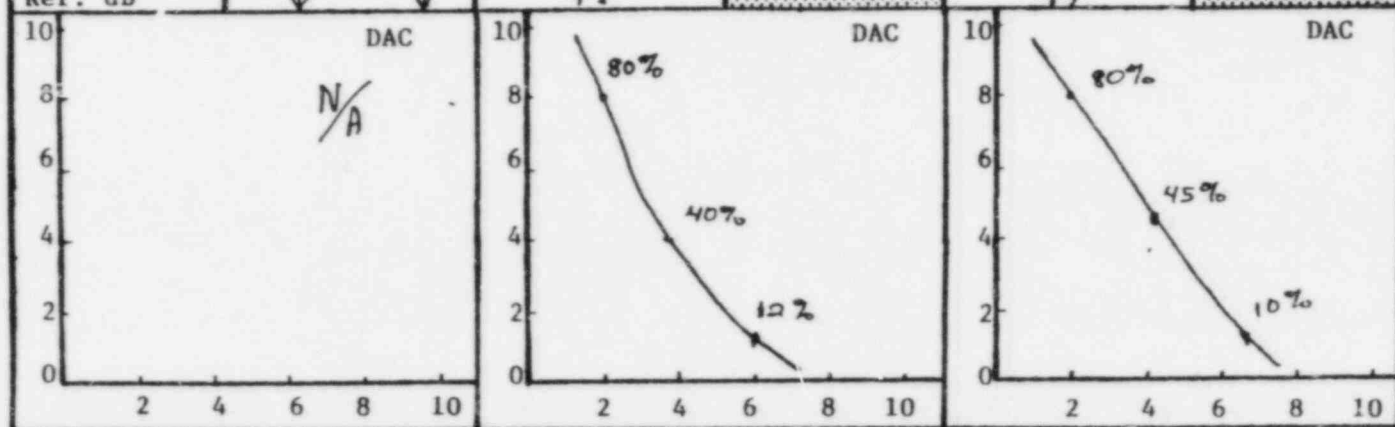
Ultrasonic Examination Report



Customer <i>LP&L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1/52</i>	Iso/Drawing No. <i>Zone B2, A.2, F.C. 78</i>
Procedure <i>IST 2.7, R.O. FCH</i>	Exam Surface <i>O.D.</i>	Examiner/Level <i>James [unclear]</i>	VCR Supervisor <i>Kevin [unclear]</i>	Date <i>11-12-82</i>
Component/Piping System <i>Shutdown Cooling to ^{FROM} Loop, Class 2</i>	Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-120</i>	Couplant: Sonotrace Type <i>40</i> Batch No. <i>8124</i>

Continuation Sheet Attached Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Transducer	0°	45°	60°	Instrument			
Field Changes: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, Number <i>4</i>	S/N	<i>N/A</i>	<i>KA 57000</i>	<i>N/A</i>	Mfr.	<i>Sonic</i>	Model	<i>Mark I</i>
	Size		<i>3/8"</i>		S/N	<i>05304E</i>	RepRate	<i>1K</i>
	Frequency		<i>3.5MHz</i>		Reject	<i>off</i>	Filter	<i>H.</i>
	Beam Angle	<i>45°</i>			Damp	<i>Min</i>	Coax	<i>6' Ant to MP</i>
					Freq.	<i>2MHz</i>	Video	<i>Norm</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1T</i>	<i>N/A</i>	<i>N/A</i>	<i>80%</i>	<i>2.0</i>	<i>N/A</i>		<i>80%</i>	<i>2.0</i>	<i>N/A</i>		<i>N/A</i>	<i>N/A</i>	<i>7:55</i>	<i>9:47</i>	<i>N/A</i>	<i>N/A</i>
<i>2T</i>			<i>40%</i>	<i>3.9</i>			<i>45%</i>	<i>4.2</i>			<i>12:09</i>	<i>2:16</i>				
<i>3T</i>			<i>12%</i>	<i>6.0</i>			<i>10%</i>	<i>6.4</i>								
Ref. dB			<i>47</i>				<i>47</i>									



Additional Comments/Sketch

W.R. Martin, ANST 12-6-P2



Ultrasonic Examination Report

Indication Record

Customer LPIL	Plant WATERFORD	Unit 3	Loop 1
Procedure ISI 2.7 REV 0 FC 4	Examiner/Level <i>Janice Weatherill</i>	VCR Supervisor <i>Kevin White</i>	Date 11-12-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 1, CLASS 2	ISO Drawing No. ZONE 52 REV 2 FC 7 8	Cal. Standard No./Thickness UT-120 .360"	

Weld No.	Ind No.	Max. % DAC	Indication Length		Minimum Depth S.U. Sweep		Maximum Depth S.U. Sweep		Beam Angle	Beam Dir.	Base Metal Thickness 2 Side	Weld Thick.	Base Metal Thickness		Remarks
			From	To	Pos.	Reading	Pos.	Reading					5 Side		
52-066	1	141	* 1 5/8"	4 1/8"	1.0"	1.8	1 1/4"	2.6	45°	5	.234"	.306"	.234"	* TOTAL CIRCUMFERENCE OF WELD IS 44.0"	
52-065	2	178	* 3 1/8"	33 1/2"	1.0"	1.8	1 3/16"	2.4	45°	5	.234"	.270"	.237"		
52-065	3	70	* 3.0"	3 3/32"	1 1/16"	3.2	1 5/16"	4.0	45°	2	.234"	.306"	.234"		
52-065	4	63	* 3 5/16"	3 3/4"	3/4"	4.4	1.0"	4.7	45°	2	.252"	.306"	.237"		
52-065	5	50	* 4 1/2"	4 5/8"	1 5/8"	4.6	1 7/8"	5.4	45°	2	.234"	.306"	.234"		
52-065	6	56	* 1 4 9/16"	14 5/8"	7/8"	4.4	1 1/16"	4.8	45°	2	.280"	.280"	.241"		
NOTE: THE ABOVE RI'S MAY HAVE BEEN CAUSED BY METALLURGICAL CHARACTERISTICS IN THIN WALL STAINLESS STEEL															



M.R. Martin, ANEI 12-6-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP&L	Plant Waterford	Unit 3	Loop/Zone 1/52
Component/Piping System Shutdown Cooling From Loop 1, Class 2	Examiner/Level JAMES GIBSON NDT	Date 11-11-82	
Procedure ISI 2.5 RO FC1	Iso/Drawing No. ZONE 52 R2 FLT	VCR Supervisory Kevin [unclear]	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. SONIC	Mfgr. KB-AEROTECH	Size .50'	Cal. Block UT-119	
Model MARK I			Cal. Block NA	
S/N 02307E	Freq. 2.25 MHz		Range Cal. 1.125 to 6.0	
Reject OFF	Serial No. KB 2728		Calibration Checks	
Damp. MIN	Coax. Cable 6' BNC TO PC		IN 1:13	
Freq. 2.0 MHz	Gain 70 DB		OUT 3:26	
Rep. Rate 3K				
Filter H1				
Video NORM				
Couplant SONATRACK 40 BATCH# 8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
52-015-900	12	1.313"	1.238"	1.275"	NA	NA	NA	NA	NA
	2	1.294"	1.200"	1.313"					
	4	1.256"	1.200"	1.275"					
	6	1.275"	1.181"	1.219"					
	8	1.275"	1.181"	1.238"					
	10	1.275"	1.181"	1.238"					
NA	NA	NA	NA	NA					

Sketch/Identification

W.R. Martin, AMS 12-6-82



Ultrasonic Examination Report

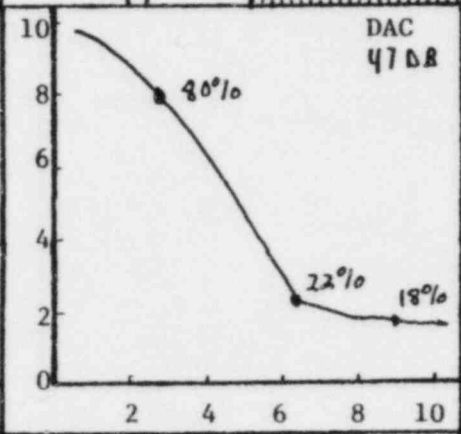
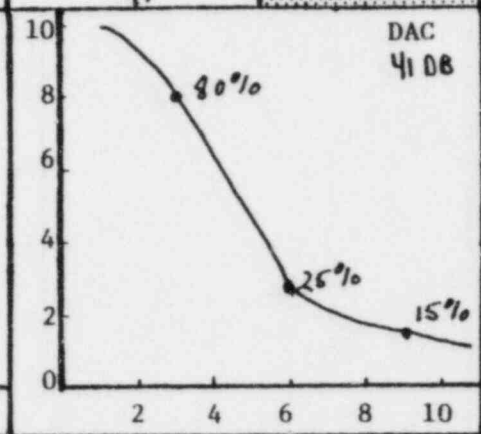
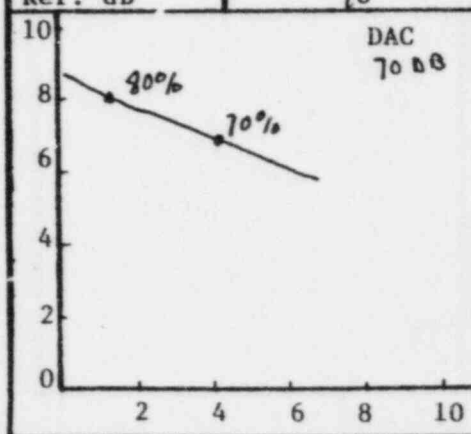
Customer: <i>LPIL</i>	Plant: <i>WATERFORD</i>	Unit: <i>3</i>	Loop/Zone: <i>1 52</i>	Iso/Drawing No.: <i>ZONE 52 REV 2 FL 78 (RM)</i>
Procedure: <i>ISI 2.7 REV 0 FL 4</i>	Exam Surface: <i>O.D.</i>	Examiner/Level: <i>Thomas Wright LVII</i>	VCR Supervisor: <i>Thomas Wright</i>	Date: <i>11-11-82</i>
Component/Piping System: <i>SHUTDOWN COOLING FROM LOOP 1, CLASS 2</i>	Pipe Size: <i>14"</i>	Weld Type: <i>RWT</i>	Cal. Block #: <i>UT-119</i>	Couplant: <i>SONOTRACE</i>
			Type: <i>40</i>	Batch No.: <i>8124</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *4*

Transducer	0°	45°	50°	Instrument	
S/N	<i>KB2728</i>	<i>607152</i>	<i>NA</i>	Mfgr. <i>SONIC</i>	Model <i>MARK I</i>
Size	<i>.50"</i>	<i>.50"</i>		S/N <i>023076</i>	RepRate <i>3K</i>
Frequency	<i>2.25 MHz</i>	<i>2.25 MHz</i>		Reject <i>OFF</i>	Filter <i>H1</i>
Beam Angle	<i>0°</i>	<i>45°</i>	<i>↓</i>	Damp <i>MIN</i>	Coax <i>6' BNC TO PL</i>
				Freq. <i>2.0 MHz</i>	Video <i>NORM</i>

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks								
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
<i>1/4T</i>	<i>80%</i>	<i>1.4</i>				<i>NA</i>						<i>1:13</i>	<i>3:26</i>	<i>1:50</i>	<i>3:30</i>	<i>NA</i>	<i>NA</i>
<i>3/4T</i>	<i>70%</i>	<i>4.2</i>															
<i>1T</i>	<i>NA</i>	<i>6.0</i>															
<i>1T</i>			<i>80%</i>	<i>3.0</i>			<i>80%</i>	<i>3.0</i>									
<i>2T</i>			<i>25%</i>	<i>6.0</i>			<i>22%</i>	<i>6.2</i>									
<i>3T</i>			<i>15%</i>	<i>9.0</i>			<i>18%</i>	<i>9.2</i>									



Additional Comments/Sketch

M.R. Martin, ANIF 12-6-82

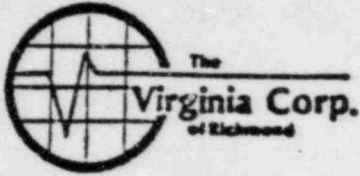


Ultrasonic Examination Report - Continuation Sheet

Page of

Customer	APIL	Plant	WATERFORD	Unit	3	Loop/Zone	1 52	Iso/Drawing No.	WAM 22 30NE53 REV 2 FC 78
Procedure	151.2.7 REV 0 FC 4	Exam Surface	O.D.	Examiner/Level	Tommy Lovitt NIB	VCR Supervisor	Tommy Lovitt	Date	11-11-82
Component/Piping System	SHUTDOWN COOLING FROM LOOP 1, CLASS 2		Pipe Size	14"	Weld Type	BOIT	Cal. Block Couplant:	Type & Batch #	SONOTRAKE 40 8124

Weld No.	Base Metal Scan	Scan Direction			Inspection Limitations	Surface Condition		Examination Results		Remarks		
		2	5	7 & 8		Base Metal	Weld	UT	Visual			
52-015-900	YES	YES	YES	YES	PAR	DUE TO WELD JOE APPROX 25% OF WELD NOT EXAMINED	SMOOTH	CLEAN	NI	597		



M.R. Martin, AWSI 1-13-83
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone 1 52
Component/Piping System SHUTDOWN COOLING FROM LOOP 1		Examiner/Level Gary Langenacker II	Date 11-13-82
Procedure ISI, 2.5 RO, FC 1	Iso/Drawing No. ZONE 52 R2, FC 1	VCR Supervisor Daniel Jensen	Continuation Sheet Attached [] Yes [X] No

Equipment

Instrument		Transducer		Calibration	
Mfgr.	SONIC	Mfgr.	K-B AEROTECH	Size	.5" DIA.
Model	MARK 1				
S/N	03704E	Freq.	2.25 MHZ.	Cal. Block	UT-119
Reject	OFF			Cal. Block	
Damp.	MIX.	Serial No.	KB 2654	Range Cal.	1.125" @ 7.0
Freq.	2. MHZ.			Calibration Checks	
Rep. Rate	3K	Coax. Cable	6'	CAL. IN	1:30
Filter	H1			CAL. OUT	3:15
Video	NORM	Gain	74 db		
Couplant	SONOTRACE 40 #8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
52-019-	12	1.318	V	1.318	NA	NA	NA	NA	NA
	2	1.318	A	1.398					
	4	1.382	L	1.398					
	6	1.382	V	1.446					
	8	1.286	E	1.398					
	10	1.254		1.318					

Sketch/Identification

(Blank area for sketch/identification)

H.R. Martin, ANSI 7-13-83



Ultrasonic Examination Report

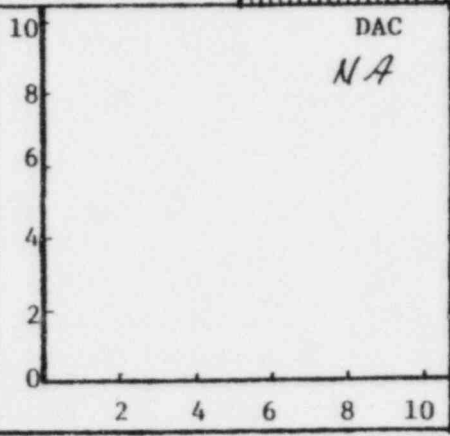
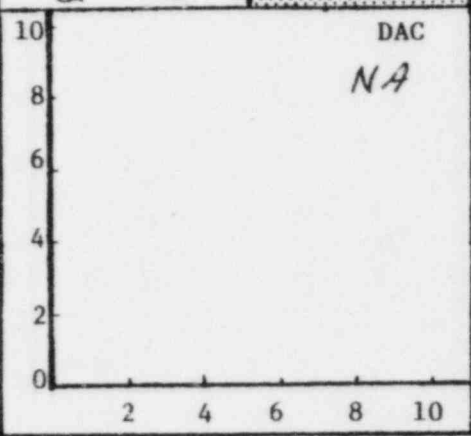
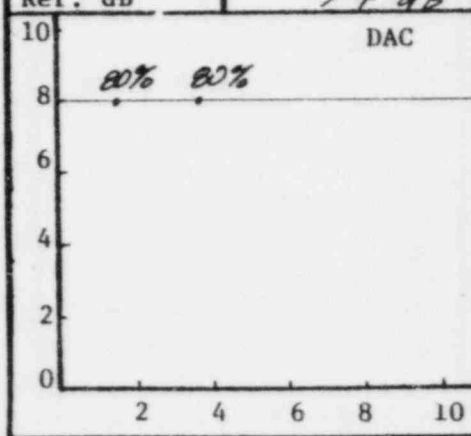
Customer LP #L	Plant WATERFORD	Unit 3	Loop/Zone 1 52	Iso/Drawing No. ZONE 52 R-2, F.C. 7
Procedure ISI. 27 RO, FCA	Exam Surface O.D.	Examiner/Level Nary Hougencok II	VCR Supervisor Donal Jensen	Date 11-13-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 1		Pipe Size 14"	Weld Type BUTT	Cal. Block # UT-119
		Couplant: SONOTRACE		Type 40 Batch No. 8:24

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **4**

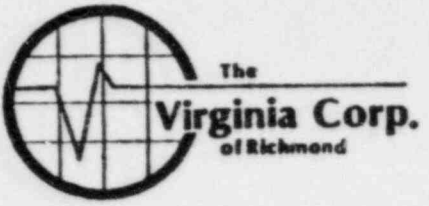
Transducer	0°	45°	60°	Instrument			
	S/N	KB265A	NA	NA	Mfgr.	SONIC	Model MARK I
	Size	.5" DIA.			S/N	03704E	RepRate 3K
	Frequency	2.25 MHz			Reject	OFF	Filter H1
	Beam Angle	0°			Damp	MIN.	Coax 6'
				Freq.	2. MHz.	Video NORM	

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks						
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°		
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out	
1/4 T	80%	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	1:30	3:15	NA	NA	NA	NA
3/4 T	80%	4.0															
1 T	NA	7.0															
Ref. dB	74 db																



Additional Comments/Sketch

M.R. Martin, ANEF 1-13-83



Ultrasonic Examination Report

Customer <i>LP & L</i>	Plant <i>WATERFORD</i>	Unit <i>3</i>	Loop/Zone <i>1 52</i>	Iso/Drawing No. <i>ZONE 52 R-2, F.C.7</i>	<i>8</i>
Procedure <i>ISI 2.7 RD, FLA</i>	Exam Surface <i>O.I.D.</i>	Examiner/Level <i>Nary Hougenecker II</i>	VCR Supervisor <i>Daniel D. Dase</i>	Date <i>11-13-82</i>	
Component/Piping System <i>SHUTDOWN COOLING FROM LOOP 1</i>		Pipe Size <i>14"</i>	Weld Type <i>BUTT</i>	Cal. Block # <i>UT-119</i>	Couplant: <i>SONOTRACE</i> Type <i>40</i> Batch No. <i>8129</i>

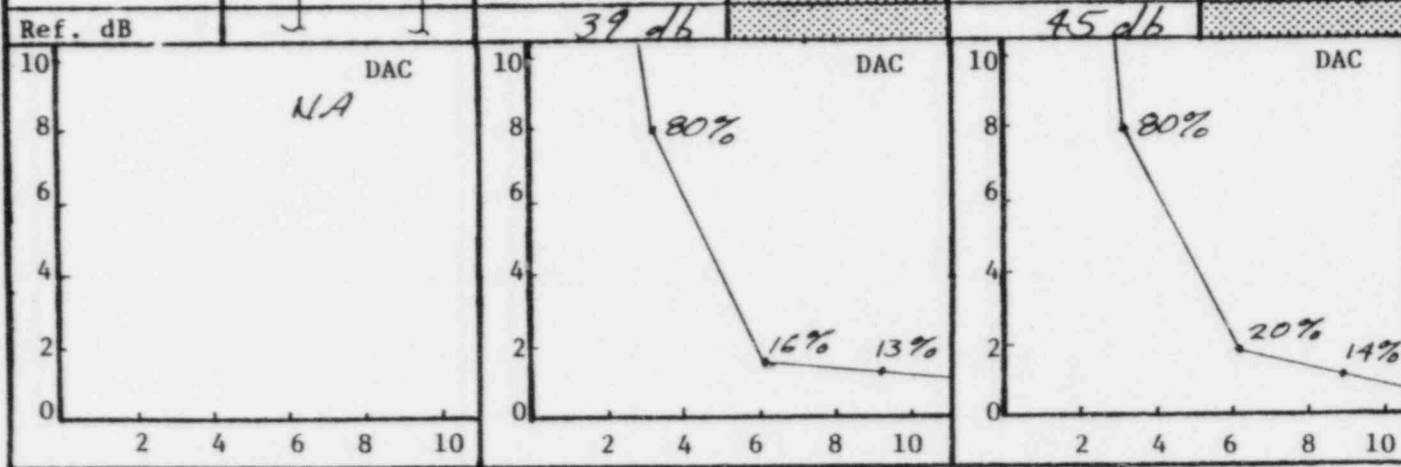
Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *4*

	Transducer	0°	45°	60°	Instrument			
	S/N	<i>NA</i>	<i>G0715Z</i>	<i>NA</i>	Mfr.	<i>SONIC</i>	Model	<i>MARK I</i>
	Size		<i>.5" DIA</i>		S/N	<i>05304E</i>	RepRate	<i>3K</i>
	Frequency		<i>2.25 MHz</i>		Reject	<i>OFF</i>	Filter	<i>H1</i>
	Beam Angle		<i>45°</i>		Damp	<i>MIN.</i>	Coax	<i>6'</i>
					Freq.	<i>2. MHz.</i>	Video	<i>NORM</i>

Calibration 0°			2 & 5 Scan				7 & 8 Scan			
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:	
					Scribe Line	50% DAC			Scribe Line	50% DAC
<i>1 T</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3.0</i>	<i>NA</i>	<i>NA</i>	<i>80%</i>	<i>3.0</i>	<i>NA</i>	<i>NA</i>
<i>2 T</i>			<i>16%</i>	<i>6.1</i>			<i>20%</i>	<i>6.1</i>		
<i>3 T</i>			<i>13%</i>	<i>9.0</i>			<i>14%</i>	<i>9.2</i>		

Calibration Checks					
0°		45°		60°	
In	Out	In	Out	In	Out
<i>NA</i>	<i>NA</i>	<i>1:35</i>	<i>3:17</i>	<i>NA</i>	<i>NA</i>



Additional Comments/Sketch

M.R. Martin ANSE 1-13-83



Ultrasonic Examination Report - Continuation Sheet

Page of

Customer LP & L	Plant WATERFORD	Unit 3	Loop/ Zone 1 52	Iso/Drawing No. ZONE 52 R-2, FCT
Procedure ISI 27 R2, FCA	Exam Surface O.D.	Examiner/Level Gary Longenecker II	VCR Supervisor Daniel J. ...	Date 11-13-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 1	Pipe Size 14"	Weld Type BUTT	Cal. Block Compliant: Type & Batch # UT-119 SONOTRACE 40*8124	

Weld No.	Base Metal Scan	Scan Direction				Inspection Limitations	Surface Condition		Examination Results		Remarks	
		2	5	7 & 8	0		Base Metal	Weld	UT	Visual		
52-019 902	NA	PAR	NO	YES	PAR	PAR	* VALVE	CLEAN	GROUND	NI	SAT.	
							* BASE METAL SCAN EXAMINED ON 5 SIDE ONLY. 0, 7 & 8 SCANS ONLY EXAMINED ON WELD AND 5 SIDE H.A.Z.					



W.R. Martin, ANII 12-6-82
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>L.P.+L.</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1/52</i>
Component/Piping System <i>Shutdown Cooling from Loop 1, Class 2</i>		Examiner/Level <i>Kevin White/II</i>	Date <i>11/17/82</i>
Procedure <i>ISI-2.5, R.O, FC 1</i>	Iso/Drawing No. <i>Zone 52, R. 2, FC. 8</i>	VCR Supervisor <i>Kevin White</i>	Continuation Sheet Attached [] Yes [x] No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>SONICS</i>	Mfgr. <i>KB-Aerotech</i>	Size <i>1/2"</i>	Cal. Block <i>UT-119 (1.125")</i>	
Model <i>Mark I</i>			Cal. Block <i>NA</i>	
S/N <i>03704E</i>	Freq. <i>2.25 Mhz</i>		Range Cal. <i>1.875"</i>	
Reject <i>off</i>			Calibration Checks	
Damp. <i>Min.</i>	Serial No. <i>KB-2654</i>		<i>Initial: 2:30 PM</i>	
Freq. <i>2</i>			<i>Final: 5:10 PM</i>	
Rep. Rate <i>3K</i>	Coax. Cable <i>6' P.c. to BNC</i>			
Filter <i>High</i>				
Video <i>Diff</i>	Gain <i>73db</i>			
Couplant <i>Somtrace 40, #8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>52-021</i>	<i>2</i>	<i>1.312"</i>	<i>1.312"</i>	<i>Valve body</i>					
	<i>4</i>	<i>1.350"</i>	<i>1.275"</i>						
	<i>6</i>	<i>1.350"</i>	<i>1.275"</i>						
	<i>8</i>	<i>1.275"</i>	<i>1.275"</i>						
	<i>10</i>	<i>1.275"</i>	<i>1.275"</i>						
	<i>12</i>	<i>1.237"</i>	<i>1.312"</i>						

Sketch/Identification

M.R. Martin, A.I.I. 12-6-82

Ultrasonic Examination Report



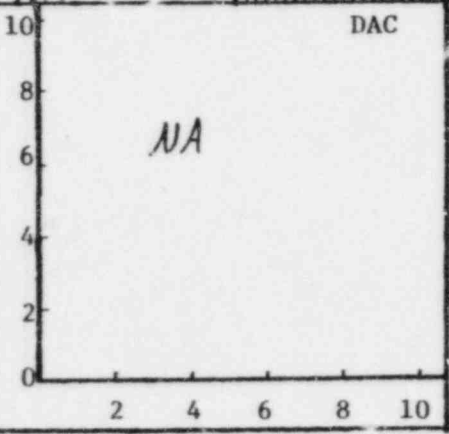
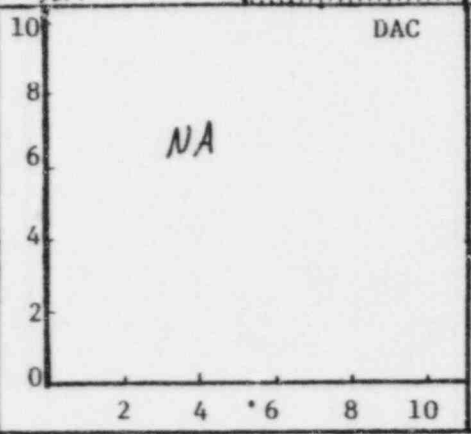
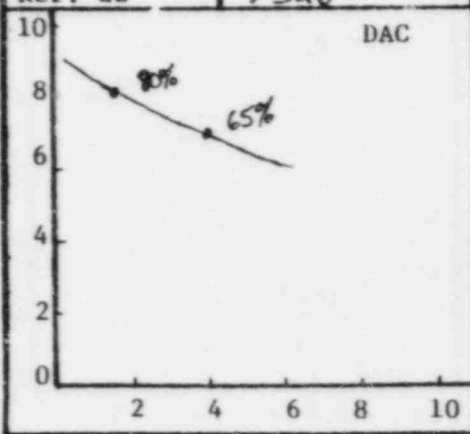
Customer <i>L.P.L.</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1/52</i>	Iso/Drawing No. <i>Zone 52, R.2, FC.8</i>
Procedure <i>ISI-2.7.R.O.F.C.Y.</i>	Exam Surface <i>OP.</i>	Examiner/Level <i>Kevin White/II</i>	VCR Supervisor <i>Kevin White</i>	Date <i>11/17/82</i>
Component/Piping System <i>Shutdown Cooling from Loop 1, Class 2</i>		Pipe Size <i>14"</i>	Weld Type <i>Butt</i>	Cal. Block # <i>UT-119 (1.125")</i>
			Couplant: <i>Sonotrace</i>	Batch No. <i>8129</i>

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number *4*

	Transducer	0°	45°	60°	Instrument			
	S/N	<i>KB-2651</i>	<i>NA</i>	<i>NA</i>	Mfr.	<i>Sonics</i>	Model	<i>Mark I</i>
	Size	<i>1/2"</i>			S/N	<i>03704E</i>	RepRate	<i>3K</i>
	Frequency	<i>2.25Mhz</i>			Reject	<i>off</i>	Filter	<i>High</i>
Beam Angle	<i>0°</i>			Damp	<i>Min.</i>	Coax	<i>6' AC, BNC</i>	
				Freq.	<i>2</i>	Video	<i>Diff.</i>	

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
<i>1/4T</i>	<i>80%</i>	<i>1.4</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>		<i>NA</i>	<i>NA</i>	<i>NA</i>		<i>2:30 PM</i>	<i>5:10 PM</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
<i>3/4T</i>	<i>65%</i>	<i>4.0</i>														
Ref. dB	<i>73db</i>		<i>NA</i>				<i>NA</i>									



Additional Comments/Sketch
None



Ultrasonic Examination Report

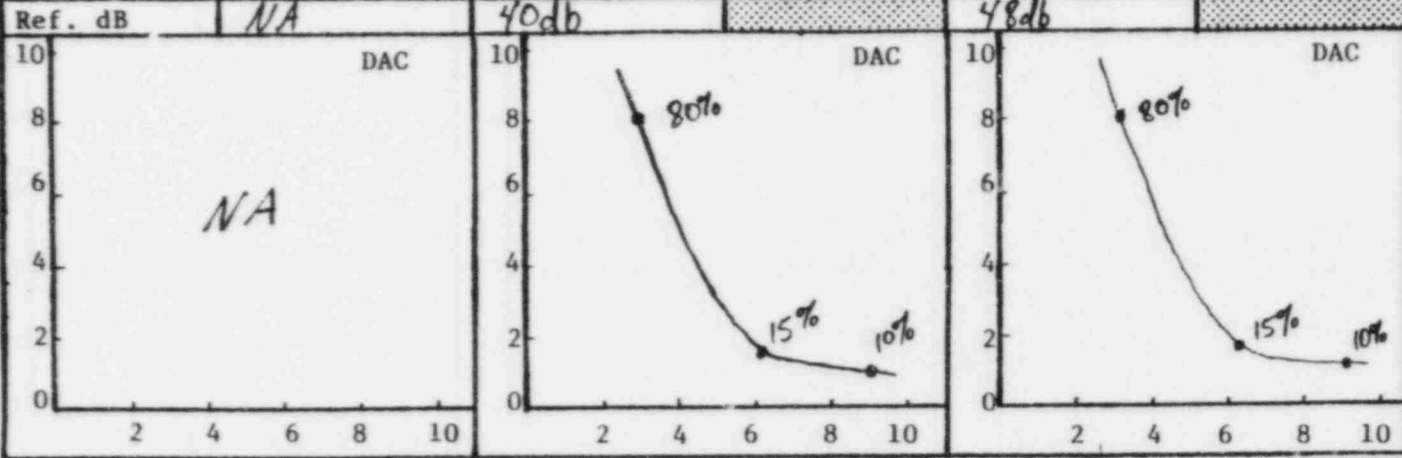
Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 1/52	Iso/Drawing No. Zone 52, R2, F.C.8
Procedure ISI-2.7.R.O.F.C.4	Exam Surface O.D.	Examiner/Level Kevin White/II	VCR Supervisor Kevin White	Date 11/17/82
Component/Piping System Shutdown Cooling from Loop 1, Class 2	Pipe Size 14"	Weld Type Butt	Cal. Block # UF19(1.125")	Couplant: Sonotrace Type 40 Batch No. 8124

Continuation Sheet Attached
Yes No

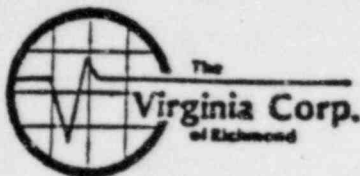
Field Changes:
Yes No
If Yes, Number **4**

Transducer	0°	45°	60°	Instrument			
	S/N NA	G07152	NA	Mfr. Sonic	Model Mark I	RepRate 3K	Filter High
	Size 1/2"	Frequency 2.25MHz	Beam Angle 46°	S/N 05304E	Reject off	Coax 6' Ad to BNC	Video Norm
	Era.	2	Video	2	2:20PM	5:20PM	NA

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.1	NA		NA	NA	2:20PM	5:20PM	NA	NA
2T			15%	6.0			15%	6.2								
3T			10%	9.0			10%	9.3								



Additional Comments/Sketch
None



M.R. Martin, ANIF 12-1482
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 1/52
Component/Piping System Class 2 Shutdown Cooling from Loop 1		Examiner/Level Kevin White III	Date 12-4-82
Procedure ISI-2.5, RO, FC. 1	Iso/Drawing No. Zone 52, R2, FC. 8	VCR Supervisor Kevin White	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

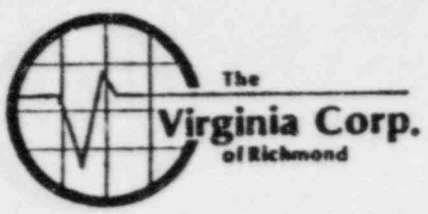
Instrument		Transducer		Calibration
Mfgr. Sonic	Mfgr. Aerotech	Size 1/2"	Cal. Block UT-119 (1.125")	
Model Mark I	Freq. 2.25 MHz	Cal. Block		
S/N 01930E	Serial No. KB 2654	Range Cal. 1.875"		
Reject off	Coax. Cable 6' BNC-PC	Calibration Checks		
Damp. Min.	Gain 74 db	IN: 2:10 PM		
Freq. 2		OUT: 3:55 PM		
Rep. Rate 1K				
Filter Med				
Video Norm				
Couplant Sawtrace 40, #812Y				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
52-009	2	1.125"	1.200"	Tee body					
	4	1.181"	1.238"						
	6	1.200"	1.144"						
	8	1.144"	1.125"						
	10	1.106"	1.163"						
✓	12	1.163"	1.144"	✓					

Sketch/Identification

M.R. Martin, ANEP 12-14-82



Ultrasonic Examination Report

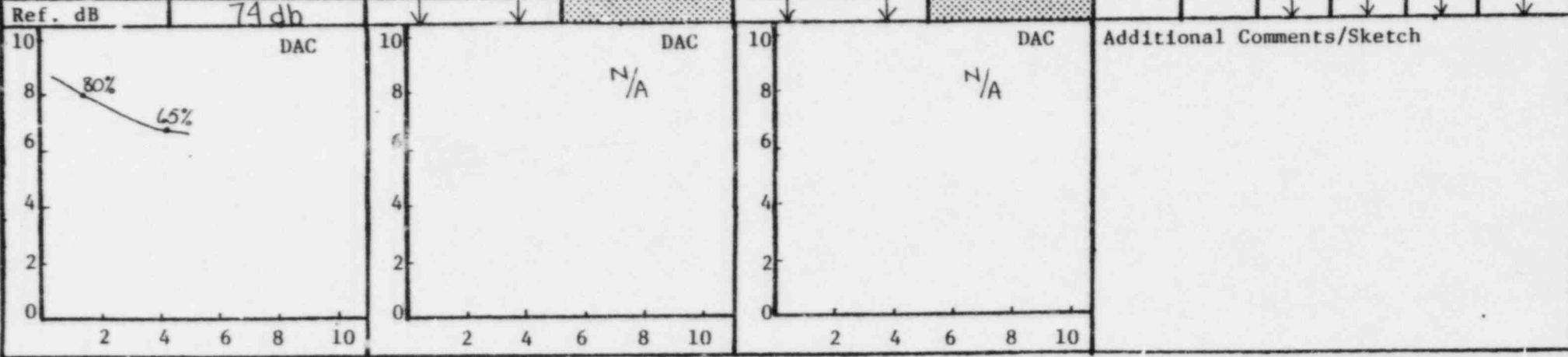
Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone 1/52	Iso/Drawing No. ZONE 52 REV 2 FC. 8
Procedure ISI-2.7 ROFC4	Exam Surface O.D.	Examiner/Level <i>Kevin White II</i>	VCR Supervisor <i>Kevin White</i>	Date 12-4-82
Component/Piping System SHUTDOWN COOLING FROM LOOP	Class 2	Pipe Size 14"	Weld Type BUTT	Cal. Block # UT-119
			Couplant: SONOTRACE	Batch No. 8124

Continuation Sheet Attached
 Yes No

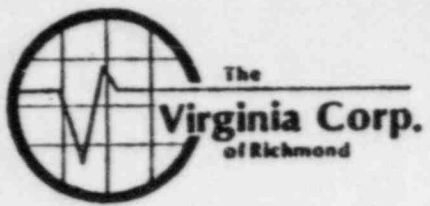
Field Changes:
 Yes No
 If Yes, Number **4**

Transducer	0°	45°	60°	Instrument			
S/N	KB2654	N/A	N/A	Mfg.	SONIC	Model	MARK I
Size	.5"			S/N	01930E	RepRate	1K
Frequency	2.25 MHz			Reject	OFF	Filter	MED
Beam Angle	0°			Damp	MIN	Coax	6'BNC-PC
				Freq.	2	Video	NORM

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks							
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
1/4T	80%	1.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2:10	3:55	N/A	N/A	N/A	N/A
3/4T	65%	4.1																
1T		6.0																



W.R. Martin, ANFI 12-14-82



Ultrasonic Examination Report

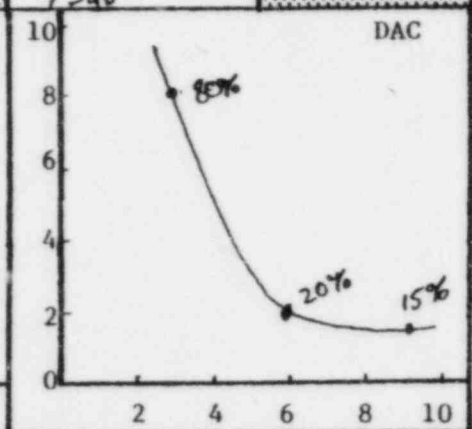
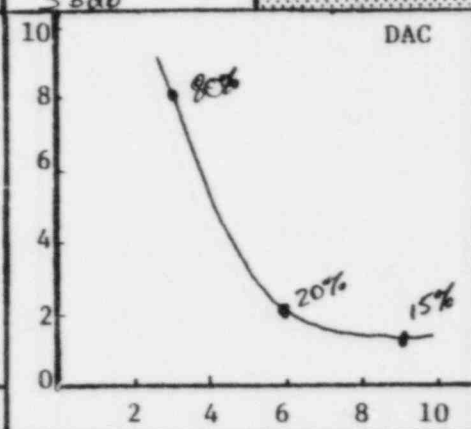
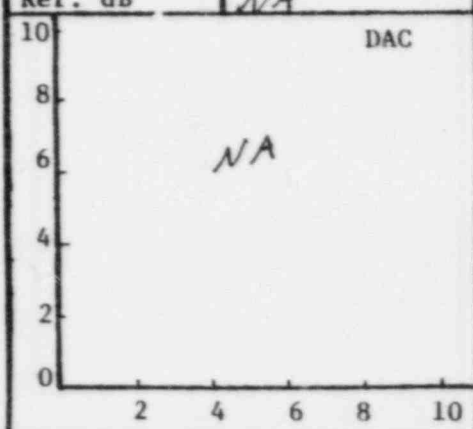
Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 1/52	Iso/Drawing No. Zone 52, R2, FC. 8
Procedure ISI-27, R0, FC. 4	Exam Surface O.D.	Examiner/Level Kevin White/II	VCR Supervisor Kevin White	Date 12-4-82
Component/Piping System Shutdown Cooling from Loop 2 Class 2	Pipe Size 14"	Weld Type Butt	Cal. Block # UT-119	Couplant: Sonotrace Type 40 Batch No. 8129

Continuation Sheet Attached
 Yes No

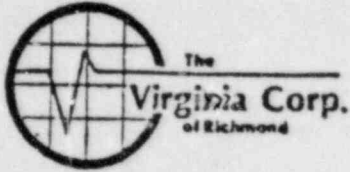
Field Changes:
 Yes No
 If Yes, Number **4**

Transducer S/N Size Frequency Beam Angle	0°	45°	60°	Instrument			
	NA	G07152	NA	Mfr.	Sonic	Model	Mark I
		1/2"		S/N	05304E	RepRate	1K
		2.25 MHz		Reject	off	Filter	Med
		44°		Damp	Min.	Coax	6'BNC-MD
				Freq.	2	Video	Norm

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
1T	NA	NA	80%	3.0	NA		80%	3.0	NA		NA	NA	2:30 PM	4:00 PM	NA	NA
2T			20%	6.0			20%	6.0								
3T			15%	9.0			15%	9.2								
Ref. dB	NA		38db				43db									



Additional Comments/Sketch
None



W.R. Martin, ANEI 12-14-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP+L	Plant Waterford	Unit 3	Loop/Zone 2/52
Component/Piping System Shutdown Cooling from Loop 1, Class 2		Examiner/Level Kevin White/II	Date 12-7-82
Procedure ISI-2.5, R.O, FC 1	Iso/Drawing No. Zone 52, R.2, FC 8	VCR Supervisor Kevin White	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. Sonics	Mfgr. Aerotech	Size 1/2"	Cal. Block UT-119 (1.125")	
Model Mark I	Freq. 2.25 Mhz		Cal. Block	
S/N 01930E	Serial No. KB2654		Range Cal. 1.875"	
Reject off	Coax. Cable 6' BNC-AC		Calibration Checks	
Damp. Min.	Gain 74db		IN: 2:10 PM	
Freq. 2			OUT: 4:32 PM	
Rep. Rate 1K				
Filter off Med (R)				
Video Norm				
Couplant Sonotrace 40, #8124				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
52-003	2	1.256"	1.144"	1.219"	52-010	2	1.125"	1.275"	1.200"
	4	1.313"	1.219"	1.200"		4	1.200"	1.313"	1.163"
	6	1.238"	1.388"	1.163"		6	1.125"	1.388"	1.125"
	8	1.275"	1.238"	1.125"		8	1.125"	1.313"	1.163"
	10	1.275"	1.163"	1.125"		10	1.125"	1.313"	1.200"
▼	12	1.294"	1.256"	1.219"	▼	12	1.125"	1.313"	1.200"

Sketch/Identification



M.R. Martin, ANIS 12-21-82
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer LP & L	Plant Waterford	Unit 3	Loc/Zone 1/52
Component/Piping System Shutdown Cooling	Examiner/Level Dannie R. Lister II / Frank Brown I	Date 12-16-82	
Procedure ISI-2.5 RO FC1	Iso/Drawing No. 20052R2 FC89	VCR Supervisor Dannie R. Lister	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>SONIC</i>	Mfgr. <i>KB-Aerotech</i>	Size <i>.25"</i>	Cal. Block <i>.445" / UT-12</i>	
Model <i>Mark I</i>			Cal. Block <i>NA</i>	
S/N <i>01930E</i>	Freq. <i>5 MHz</i>		Range Cal. <i>.742"</i>	
Reject <i>OFF</i>	Serial No. <i>KB2704</i>		Calibration Checks	
Damp. <i>MIN</i>	Coax. Cable <i>6' BNC-PC</i>		<i>In: 0815</i>	
Freq. <i>5</i>	Gain <i>78dB</i>		<i>Out: 0953</i>	
Rep. Rate <i>1K</i>			<i>NA</i>	
Filter <i>OFF</i>			↓	
Video <i>Norm</i>				
Couplant <i>Sonotrace 40 S/N 8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
52-005	12:00	.489"	.653"	<i>Tee Body</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
52-005	2:00	.541"	.549"						
52-005	4:00	.556"	.527"						
52-005	6:00	.556"	.482"						
52-005	8:00	.549"	.475"						
52-005	10:00	.527"	.519"						

Sketch/Identification

N/A

M.R. Martin, ANEF 12-21-82



Ultrasonic Examination Report

Page 1 of 4

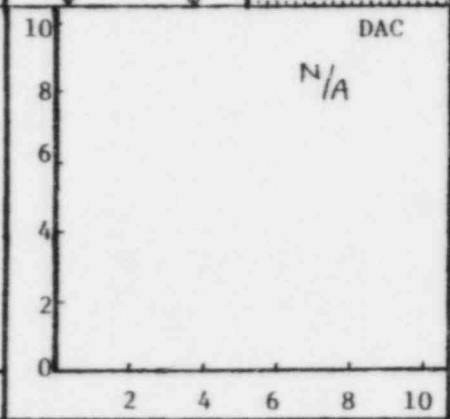
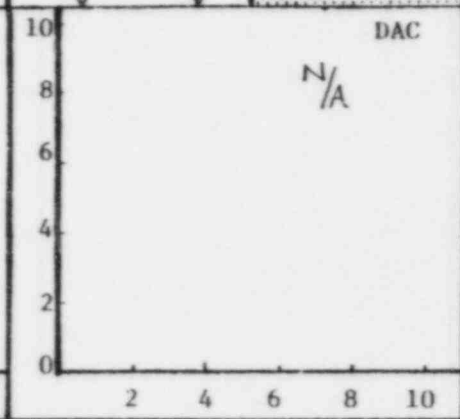
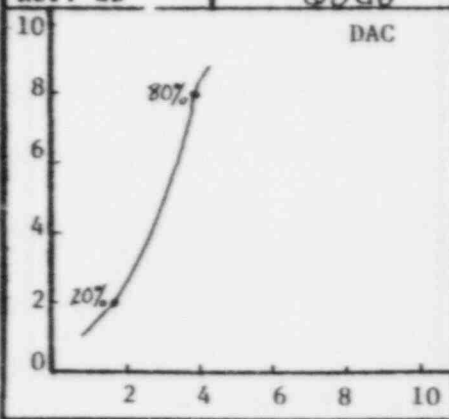
Customer LP&L	Plant WATERFORD	Unit 3	Loop/Zone 1 52	Iso/Drawing No. ZONE 52 REV. 2 F.C. 9
Procedure ISI-27 R.O.F.C.4	Exam Surface O.D.	Examiner/Level James R. Slater II	VCR Supervisor David J. Fisher	Date 12-16-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 1		Pipe Size 6"	Weld Type BLATT	Cal. Block # UT-112
			Couplant: SONOTRACE	Type 40 Batch No. 8124

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **4**

Transducer	0°	45°	60°	Instrument			
	S/N KB2704	N/A	N/A	Mfr. SONIC	Model MARK I	RepRate 1K	
	Size .25"			S/N 01930E	Filter OFF	Coax 6' BNC to PC	
	Frequency 5MHz			Reject MIN			
Beam Angle 0°				Damp 5	Vider NORM		

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks							
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
1/4T	20%	1.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8:15	9:53	N/A	N/A	N/A	N/A
3/4T	80%	3.9																



Additional Comments/Sketch

M.R. Martin, ANII 12-21-82



Ultrasonic Examination Report

Page 2 of 4

Customer LPEI	Plant WATERFORD	Unit 3	Loop/Zone 1 52	Iso/Drawing No. ZONE 52 REV. 2 F.C. 9
Procedure ISI-27 R.O.F.C.4	Exam Surface O.D.	Examiner/Level Jamie R. Slater II	VCR Supervisor [Signature]	Date 12-16-82
Component/Piping System SHUTDOWN COOLING FROM LOOP 1	Pipe Size 6"	Weld Type BUTT	Cal. Block # UT-112	Couplant: SONOTRACE Type 40 Batch No. 8124

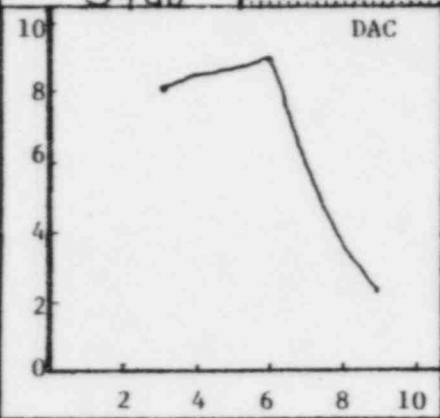
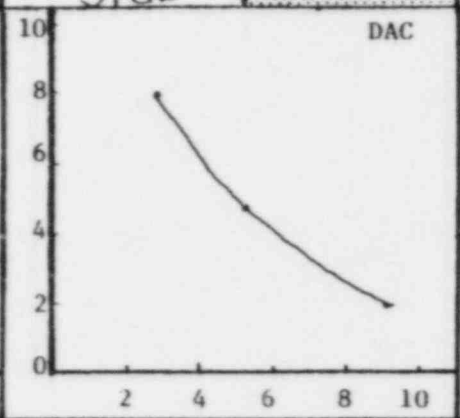
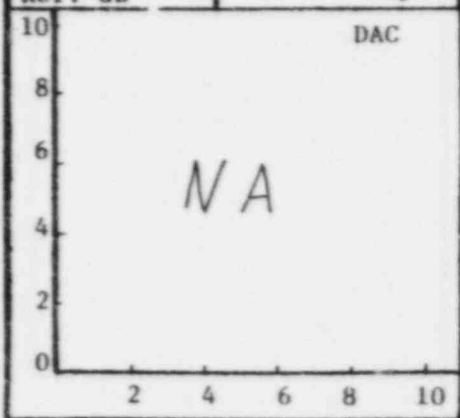
Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number 4

Transducer	0°	45°	60°
S/N	N/A	HZ5136	N/A
Size		.25"	
Frequency		2.25 MHz	
Beam Angle	↓	45°	↓

Instrument			
Mfr.	SONIC	Model	MARK I
S/N	01930E	RepRate	1K
Reject	OFF	Filter	OFF
Damp	MIN	Coax	6' BNC to MD
Freq.	2	Video	NORM

Calibration 0°			2 & 5 Scan			7 & 8 Scan			Calibration Checks									
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
1T	N/A	N/A	80%	3.0	N/A	N/A	N/A	80%	2.9	N/A	N/A	N/A	N/A	N/A	10:15	10:41	N/A	N/A
2T			45%	5.6				90%	5.8									
3T			20%	9.0				28%	8.8									
Ref. dB			51 db					54 db										



Additional Comments/Sketch



W.R. Martin, ANEF 1-11-83
 Ultrasonic Data Sheet
 for
 Thickness Measurement

Customer <i>LPYL</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1152</i>
Component/Piping System <i>Shutdown Cool. from Loop 1</i>	Examiner/Level <i>David L. Foken II</i>	Date <i>12/21/82</i>	
Procedure <i>ISI 2.5 R.O.F.C.1</i>	Iso/Drawing No. <i>Zone 52 R.2FC.9</i>	VCR Supervisor <i>David L. Foken</i>	Continuation Sheet Attached [] Yes [x] No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>Sonic</i>	Mfgr. <i>KB-Accotech</i>	Size <i>.50"</i>	Cal. Block <i>UT-119</i>	
Model <i>Mark I</i>			Cal. Block <i>NA</i>	
S/N <i>05304E</i>	Freq. <i>2.25 MHz</i>		Range Cal. <i>1.875"</i>	
Reject <i>OFF</i>	Serial No. <i>KB2654</i>		Calibration Checks	
Damp. <i>Min</i>	Coax. Cable <i>6' BNC</i>		Initial <i>7:48</i>	
Freq. <i>2.0 MHz</i>	Gain <i>74 dB</i>		Final <i>9:00</i>	
Rep. Rate <i>1K</i>				
Filter <i>OFF</i>				
Video <i>Norm</i>				
Couplant <i>Sonotrace 40 #8124</i>				

Examination Results

Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>52-017-900</i>	<i>12</i>	<i>1.20"</i>	<i>1.35"</i>	<i>1.13"</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
	<i>2</i>	<i>1.13"</i>	<i>1.33"</i>	<i>1.13"</i>					
	<i>4</i>	<i>1.09"</i>	<i>1.35"</i>	<i>1.14"</i>					
	<i>6</i>	<i>1.12"</i>	<i>1.39"</i>	<i>1.11"</i>					
	<i>8</i>	<i>1.13"</i>	<i>1.35"</i>	<i>1.14"</i>					
	<i>10</i>	<i>1.14"</i>	<i>1.35"</i>	<i>1.13"</i>					
<i>52-018</i>	<i>12</i>	<i>1.29"</i>	<i>1.29"</i>	<i>1.37"</i>					
	<i>2</i>	<i>1.26"</i>	<i>1.33"</i>	<i>1.37"</i>					
	<i>4</i>	<i>1.28"</i>	<i>1.33"</i>	<i>1.39"</i>					
	<i>6</i>	<i>1.28"</i>	<i>1.37"</i>	<i>1.31"</i>					
	<i>8</i>	<i>1.26"</i>	<i>1.33"</i>	<i>1.39"</i>					
	<i>10</i>	<i>1.22"</i>	<i>1.35"</i>	<i>1.37"</i>					

Sketch/Identification

M.R. Martin, ANEI 1-11-83



Ultrasonic Examination Report

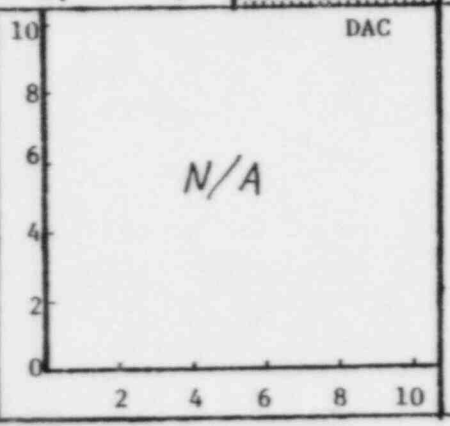
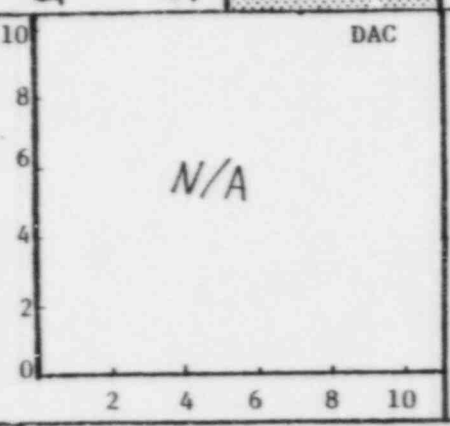
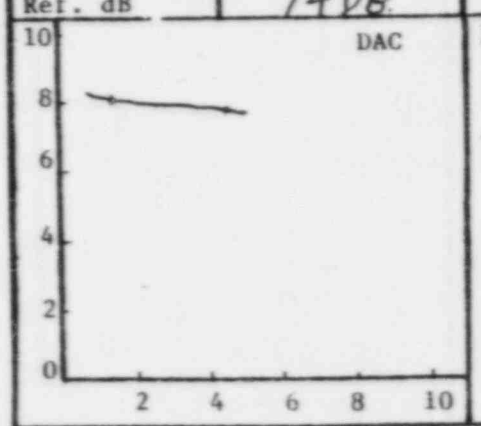
Customer LP&L	Plant Waterford	Unit 3	Loop/Zone 1/52	Iso/Drawing No. Zone 52 R2 FC 9
Procedure ISI-2.7 ROFC 4	Exam Surface OD	Examiner/Level Jimmie R. Sliter II	VCR Supervisor David L. Fokem	Date 12-21-82
Component/Piping System Shutdown Cooling From Loop	Pipe Size 14"	Weld Type Butt	Cal. Block # UT-119	Couplant: Sonotrac Type 40 Batch No. 8129

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number **4**

Transducer	0°	45°	60°	Instrument			
S/N	KB2654	N/A	N/A	Mfr.	SONIC	Model	Mark I
Size	.5"			S/N	03704E	RepRate	1K
Frequency	2.25 MHz			Reject	OFF	Filter	OFF
Beam Angle	0°			Damp	Min	Coax	6 BNC-PK
				Freq.	2	Video	Norm

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks							
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:			Signal Amp.	Sweep	Sound Entry Point To:			0°		45°		60°	
					Scribe Line	50% DAC				Scribe Line	50% DAC		In	Out	In	Out	In	Out
1/4T	80%	1.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	748	900	N/A	N/A	N/A	N/A
3/4T	75%	4.1																
1T	N/A	6.0																



Additional Comments/Sketch
N/A

Mr. R. Martin, ANII 1-11-83

Ultrasonic Examination Report

Customer: L PXL
 Procedure: ISI-27RO fcy
 Component/Piping System: Shutdown Cool Steam Pipe
 Plant: Waterford
 Exam Surface: O.O.
 Pipe Size: 14
 Weld Type: Butt
 Loop/Zone: 1152
 Iso/Drawing No.: Zone 52 R.2 F.6.9
 VCR Supervisor: David L. Zolner
 Date: 12/21/82
 Cal. Block: UT-119
 Coupon: 3007999
 Type: 90
 Batch No.: 8128

Transducer: 0°
 S/N: NA
 Size: 50°
 Frequency: 2.25MHz
 Beam Angle: 45°
 Unit: 3
 Examiner/Level: David L. Zolner
 7 & 8 Scan

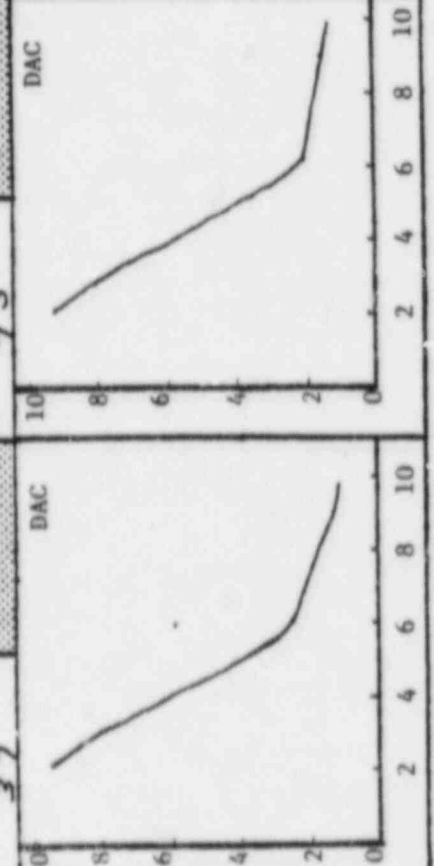
Instrument: Sonic
 Model: Mark I
 S/N: 05304E
 RepRate: 1K
 Reject: OFF
 Filter: OFF
 Coax: 6' BKS. 4R
 Damp: Min
 Video: Norm

2 & 5 Scan
 Sound Entry Point To: 60°
 Scribe Line: 50°
 DAC: 45°

Calibration Reflector Location	0°		45°		60°	
	In	Out	In	Out	In	Out
1T	NA	NA	NA	NA	NA	NA
2T						
3T						

Signal Amp.	Sweep	Scribe Line	Point To:	7 & 8 Scan	
				Signal Amp.	Sweep
80%	3.0	NA	NA	80%	3.0
25%	6.0			20%	6.2
15%	9.0			15%	9.1

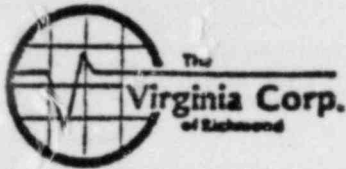
Ref. dB	0°		45°		60°	
	In	Out	In	Out	In	Out
10	NA	NA	NA	9.06	NA	NA
8				7.42		
6						
4						
2						
0						



Additional Comments/Sketch

The Virginia Corp. of Richmond

Continuation Sheet Attached
 Yes No
 Field Changes:
 Yes No
 If Yes, Number: 4



G.R. Martin, ANFI 7-7-83
Ultrasonic Data Sheet
 for
Thickness Measurement

Customer <i>LP+L</i>	Plant <i>Waterford</i>	Unit <i>3</i>	Loop/Zone <i>1/52</i>
Component/Piping System <i>Shutbahn Cooling from loop 1, Class 2</i>		Examiner/Level <i>Kevin White II</i>	Date <i>7-5-83</i>
Procedure <i>ISI-2.5.R1</i>	Iso/Drawing No. <i>Zone 52, R.5</i>	VCR Supervisor <i>Daniel Jensen</i>	Continuation Sheet Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Equipment

Instrument		Transducer		Calibration
Mfgr. <i>Sonics</i>	Mfgr. <i>KB-Aerotech</i>	Size <i>.25"</i>	Cal. Block <i>UT-104/UT-105</i>	
Model <i>Mark I</i>	Freq. <i>2.25 MHz</i>		Cal. Block	
S/N <i>02307E</i>	Serial No. <i>KB-2844</i>		Range Cal. <i>1"</i>	
Reject <i>off</i>	Coax. Cable <i>6' BNC-PC</i>		Calibration Checks	
Damp. <i>M.W.</i>	Gain <i>85db</i>		<i>IN: 1:15</i>	
Freq. <i>2.25 MHz</i>			<i>OUT: 1:50</i>	
Rep. Rate <i>3K</i>				
Filter <i>High</i>				
Video <i>Norm</i>				
Couplant <i>Sonotrace 40 8225</i>				

Examination Results

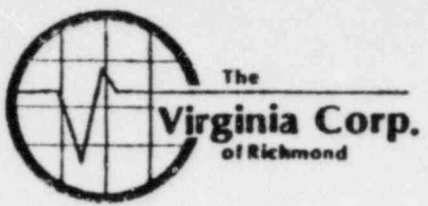
Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5	Weld Number	Meas. Point	Reading Weld	Reading Scan 2	Reading Scan 5
<i>52-001</i>	<i>12</i>	<i>.500</i>	<i>.440</i>	<i>.500</i>	<i>52-002</i>	<i>12</i>	<i>.520</i>	<i>.480</i>	<i>.440</i>
	<i>2</i>	<i>.520</i>	<i>.440</i>	<i>.540</i>		<i>2</i>	<i>.460</i>	<i>.420</i>	<i>.440</i>
	<i>4</i>	<i>.500</i>	<i>.440</i>	<i>.520</i>		<i>4</i>	<i>.500</i>	<i>.500</i>	<i>.440</i>
	<i>6</i>	<i>.520</i>	<i>.440</i>	<i>.500</i>		<i>6</i>	<i>.500</i>	<i>.480</i>	<i>.440</i>
	<i>8</i>	<i>.480</i>	<i>.440</i>	<i>.520</i>		<i>8</i>	<i>.500</i>	<i>.450</i>	<i>.440</i>
<i>↓</i>	<i>10</i>	<i>.520</i>	<i>.460</i>	<i>.480</i>	<i>↓</i>	<i>10</i>	<i>.460</i>	<i>.500</i>	<i>.460</i>
<i>Reading in inches.</i>									

Sketch/Identification

*Note: No volumetric examination required
 .375 Nominal wall*

M.R. Martin, ANII 7-8-83

Ultrasonic Examination Report



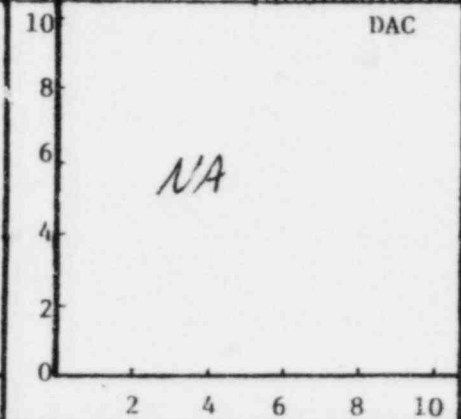
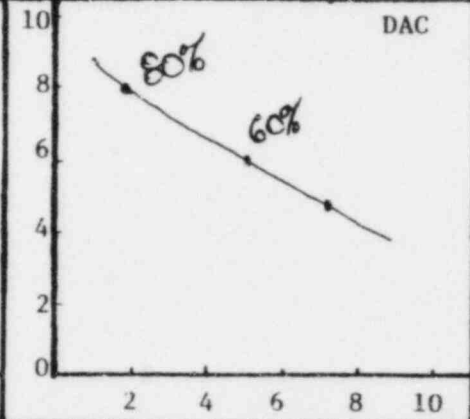
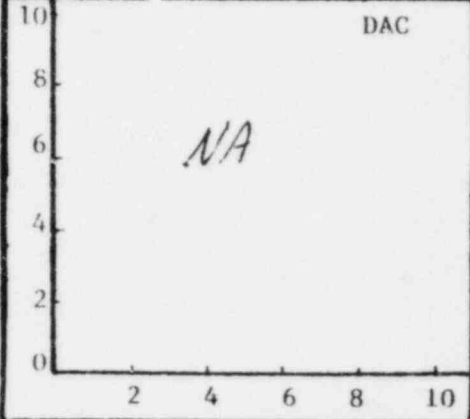
Customer LP&L	Plant Waterford	Unit 3	Loop/Zone 1/52	Iso/Drawing No. Zone 52, R.5
Procedure ISI-2.7, R1	Exam Surface OD	Examiner/Level Kevin White, II	VCR Supervisor Daniel Jensen	Date 7-7-83
Component/Piping System Shutdown Cooling from loop 1 Class 2		Pipe Size 8"	Weld Type Butt	Cal. Block # UT-113
		Couplant: Senotrac		Batch No. 8225
		Type 40		

Continuation Sheet Attached
 Yes No

Field Changes:
 Yes No
 If Yes, Number

Transducer	0°		45°		60°		Instrument			
	S/N	Size	S/N	Size	S/N	Size	Mfr.	Model	RepRate	Filter
	NA	NA	25131	.25"	NA	NA	Sonics	Mark I	3K	High
				2.25MHz			Reject	off		Coax
				45°			Damp	Min		6" BNC-Md
							Freq.	2		Video
										Norm

Calibration 0°			2 & 5 Scan				7 & 8 Scan				Calibration Checks					
Calibration Reflector Location	Signal Amp.	Sweep	Signal Amp.	Sweep	Sound Entry Point To:		Signal Amp.	Sweep	Sound Entry Point To:		0°		45°		60°	
					Scribe Line	50% DAC			Scribe Line	50% DAC	In	Out	In	Out	In	Out
44T	NA	NA	80%	1.8	NA		NA	NA	NA		NA	NA	8:00	10:30	NA	NA
34T			60%	5.2												
1T			NA	7.2												
Ref. dB	NA		47db				NA									



Additional Comments/Sketch

* See continuation sheet.
 Due to the nonlinear sweep positions of the side drilled holes of the 2+5 scans, the 7+8 scan side drilled holes were used and the sensitivity was adjusted from the 2+5 scan I.D. notch.

