

RON A. JONES Vice President Oconee Nuclear Site

Duke Power ON01VP / 7800 Rochester Highway Seneca, SC 29672

864 885 3158 864 885 3564 fax

September 20, 2004

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

Subject: Duke Energy

Oconee Nuclear Station, Unit 1

Docket Nos. 50-269

Third Ten Year Inservice Inspection Interval

Requests for Relief No. 04-ON-005

Pursuant to 10 CFR 50.55a(g)(5)(iii), attached is a Request for Relief from the requirement to examine 100% of the volume specified by the ASME Boiler and Pressure Vessel Code, Section XI, 1989 Edition with no Addenda (as modified by Code Case N-460).

Request for Relief 04-ON-005 is to allow Duke Energy to take credit for nine (9) limited ultrasonic examinations on welds associated with various systems and components described in the attached request.

During examination of the subject Unit 1 welds, the ultrasonic examination coverage did not meet the 90% examination requirements of Code Case N-460. The obtainable volume coverage for each weld examination is indicated on the attached request. Achievement of greater examination coverage for these welds is impractical due to piping/valve geometry, interferences, and existing examination technology. Therefore, Duke Energy requests that the NRC grant relief as authorized under 10 CFR 50.55a(g)(6)(i).

A047

U. S. Nuclear Regulatory Commission September 20, 2004 Page 2

If there are any questions or further information is needed you may contact R. P. Todd at (864) 885-3418.

Very truly yours,

R. A Jones

Site Vice President

Attachment

xc w/att: Mr. William D. Travers
Administrator, Region II
U.S. Nuclear Regulatory Commission
Atlanta Federal Center
61 Forsyth St., SWW, Suite 23T85
Atlanta, GA 30303

L. N. Olshan, Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

xc(w/o attch):

M. C. Shannon Senior NRC Resident Inspector Oconee Nuclear Station

Mr. Henry Porter
Division of Radioactive Waste Management
Bureau of Land and Waste Management
SC Dept. of Health & Environmental Control
2600 Bull St.
Columbia, SC 29201

Request for Relief

04-ON-005

Limited Examinations Associated With Various Systems and Components

1EOC 21

Proposed Relief in Accordance with 10 CFR 50.55a(g)(5)(iii)
Inservice Inspection Impracticality
Duke Energy Corporation
Oconee Nuclear Station – Unit 1 (EOC-21)
Third 10-Year Interval – Inservice Inspection Plan
Interval Start Date= 7-15-1993 Interval End Date=1-1-2004
ASME Section XI Code – 1989 Edition with No Addenda

	I.	II. & III.	IV.	V.	VI.	VII.
Limited	System /	Code Requirement from Which	Basis for Relief	Alternate	Justification	Implementation
Area/Weld	Component for Which	Relief is Requested:		Examinations or	for Granting	Schedule
I.D.	Relief is Requested:	100% Exam Volume Coverage		Testing	Relief	
Number	Area or Weld to be	Exam Category				
	Examined	Item No.				
		Fig. No.				
		Limitation Percentage				
. 1-PZR-	Reactor Coolant System	Exam Category B-B	See Paragraph	See Paragraph	See Paragraph	See Paragraph
WP26-3	Pressurizer Sensing	Item No. B03.110.011	"A"	"I"	"J"	"O"
	Sample Nozzle to Shell	Fig. IWB-2500-7				
	Weld	32.08% Volume coverage				
	(circumferential weld)	Limited Scan of Examination				
		Volume A-B-C-D-E-F-G-H				
1-PZR-	Reactor Coolant System	Exam Category B-B	See Paragraph	See Paragraph	See Paragraph	See Paragraph.
WP26-7	Pressurizer Sensing	Item No. B03.110.012	"A"	"T"	"J"	"O"
	Sample Nozzle to Shell	Fig. IWB-2500-7				
}	Weld	32.08% Volume coverage				
	(circumferential weld)	Limited Scan of Examination		1		
<u> </u>		Volume A-B-C-D-E-F-G-H				
1LP-140-8A	Low Pressure Injection	Exam Category B-J	See Paragraph	See Paragraph	See Paragraph	See Paragraph
	System	Item No. B09.011.111	"B"	"I"	"K"	-"O"
į į	Elbow to Valve 1LP-1	Fig. IWB-2500-8 (c)	,			
	Weld	85.07% Volume Coverage				
'	'	Limited Scan of Examination	:			
}		Volume C-D-E-F				
		(100% examination coverage	1			
į į	!	from one side and partial				
	<u> </u>	coverage from opposite side)		l		

	I.	II. & III.	IV.	V.	VI.	VII.
Limited Area/Weld I.D. Number	System / Component for Which Relief is Requested: Area or Weld to be Examined	Code Requirement from Which Relief is Requested: 100% Exam Volume Coverage Exam Category Item No. Fig. No. Limitation Percentage	Basis for Relief	Alternate Examinations or Testing	Justification for Granting Relief	Implementation Schedule
1-51A-01- 114AC	High Pressure Injection System Pipe to Valve 1HP-63 Weld	Exam Category C-F-1 Item No. C05.021.029 Fig. IWC-2500-7 (a) 55.55% Volume Coverage Limited Scan of Examination Volume C-D-E-F (examination from one side)	See Paragraph "C"	See Paragraph "I"	See Paragraph "M"	See Paragraph "O"
1HP-187-114	High Pressure Injection System Elbow to Valve 1HP- 138 Weld	Exam Category C-F-1 Item No. C05.021.034 Fig. IWC-2500-7 (a) 62.5% Volume Coverage Limited Scan of Examination Volume C-D-E-F (examination from one side)	See Paragraph "D"	See Paragraph "I"	See Paragraph "M"	See Paragraph "O"
1-51A-02- 49BA	High Pressure Injection System Pipe to Valve 1HP-132 Weld	Exam Category C-F-1 Item No. C05.021.050 Fig. IWC-2500-7 (a) 62.5% Volume Coverage Limited Scan of Examination Volume C-D-E-F (examination from one side)	See Paragraph "E"	See Paragraph "I"	See Paragraph "M"	See Paragraph "O"
1-51A-02- 23BB	High Pressure Injection System Flange to Pipe Weld	Exam Category C-F-1 Item No. C05.021.056 Fig. IWC-2500-7 (a) 62.5% Volume Coverage Limited Scan of Examination Volume C-D-E-F (examination from one side)	See Paragraph "F"	See Paragraph "I"	See Paragraph "M"	See Paragraph "O"

	I.	II. & III.	IV.	v.	VI.	VII.
Limited	System /	Code Requirement from Which	Basis for Relief	Alternate	Justification	Implementation
Area/Weld	Component for Which	Relief is Requested:		Examinations or	for Granting	Schedule
I.D.	Relief is Requested:	100% Exam Volume Coverage		Testing	Relief	1
Number	Area or Weld to be	Exam Category				
	Examined	Item No.				
[!	Fig. No.				"
		Limitation Percentage				
1HP-187-116	High Pressure Injection	Exam Category C-F-1	See Paragraph	See Paragraph	See Paragraph	See Paragraph
	System	Item No. C05.021.073	"G"	"I"	"M"	"O"
	Tee to Elbow Weld	Fig. IWC-2500-7 (a)	ļ			
1		62.5% Volume Coverage				
		Limited Scan of Examination				
		Volume C-D-E-F	Ì		1	
[(examination from one side)				
1HP-194-4	High Pressure Injection	Exam Category C-F-1	See Paragraph	See Paragraph	See Paragraph	See Paragraph
	System	Item No. C05.021.111	"H"	"I"	"M"	"O"
	Pipe to Valve 1HP-27	Fig. IWC-2500-7 (a)				
	Weld	65.18% Volume Coverage				
		Limited Scan of Examination	Į			
		Volume C-D-E-F				
		(examination from one side)	<u> </u>	<u> </u>		

See Attachment A for B03.110.011 and B03.110.012 area/weld locations.

See Attachment B for inspection data on all items listed in the above table for this Relief Request.

Note: Items in this relief request were inspected during one of the following months: August, September, October or November of 2003.

IV. Basis for Relief

Paragraph A: (The Pressurizer sensing sample nozzle material is SA508 GR. B and the heater belt shell material is SA 212 GR. B. Welds 1-PZR-WP26-3 and 1-PZR-WP26-7 have a diameter of 5.75 inches and a wall thickness of 6.188 inches.)

During the ultrasonic examination of welds 1-PZR-WP26-3 and 1-PZR-WP26-7, 32.08% coverage of the required examination volume was obtained for each of the welds. The percentage of coverage reported represents the aggregate coverage from all scans performed on the weld and adjacent base material. The coverage from each scan was as follows: straight beam, 37.42%; 45° scan, 39.06%; 60° scan, 19.77%. Limitations caused by the nozzle configuration prevented scanning from both sides of the weld. In order to scan all of the required surfaces for the inspection of these welds, the sampling nozzles would have to be redesigned to allow scanning from both sides of the weld, which is impractical. There were no recordable indications found during the inspection of these welds.

Paragraph B: (The valve and elbow material is stainless steel. Weld 1LP-140-8A has a diameter of 12 inches and a wall thickness of 1.125 inches.)

During the ultrasonic examination of weld 1LP-140-8A, 85.07% coverage of the required examination volume was obtained. The percentage of coverage reported represents the aggregate coverage from all scans performed on the weld and adjacent base material. The 45° circumferential scans, both clockwise and counter-clockwise covered 100% of the examination volume, the 60° axial scan from the elbow side covered 100% of the examination volume and the 60° axial scan from the valve side covered 40.3% of the examination volume. Scanning limitations caused by the valve configuration prevented full scanning from both sides of the weld. In order to scan all of the required surfaces for the inspection of this weld, the valve would have to be redesigned to allow scanning from both sides of the weld, which is impractical. There were no recordable indications found during the inspection of this weld.

Paragraph C: (The valve and pipe material is stainless steel. Weld 1-51A-01-114AC has a diameter of 2.5 inches and a wall thickness of .375 inches.)

During the ultrasonic examination of weld 1-51A-01-114AC, 55.55% coverage of the required examination volume was obtained. The percentage of coverage represents the aggregate coverage from all scans performed on the weld and adjacent base material. The 45° circumferential scans, both clockwise and counter-clockwise covered 61.1% of the examination volume and the 60° axial scan from the pipe side covered 100% of the examination volume. In addition, a 70° shear wave angle beam was used to interrogate the weld and base material on the valve side of the weld. Scanning limitations caused by the valve configuration prevented scanning from both sides of the weld. In order to scan all of the required surfaces for the inspection of this weld, the valve would have to be redesigned to allow scanning from both sides of the weld, which is impractical. There were no recordable indications found during the inspection of this weld.

Paragraph D: (The valve and elbow material is stainless steel. Weld 1HP-187-114 has a diameter of 4 inches and a wall thickness of .531 inches.)

During the ultrasonic examination of weld 1HP-187-114, 62.5% coverage of the required examination volume was obtained. The percentage of coverage represents the aggregate coverage from all scans performed on the weld and adjacent base material. The 45° circumferential scans, both clockwise and counter-clockwise covered 75% of the examination volume and the 60° axial scan from the elbow side covered 100% of the examination volume. Scanning limitations caused by the valve configuration prevented scanning from both sides of the weld. In order to scan all of the required surfaces for the inspection of this weld, the valve would have to be redesigned to allow scanning from both sides of the weld, which is impractical. There were no recordable indications found during the inspection of this weld.

Paragraph E: (The valve and pipe material is stainless steel. Weld 1-51A-02-49BA has a diameter of 4 inches and a wall thickness of .531 inches.)

During the ultrasonic examination of weld 1-51A-02-49BA, 62.5% coverage of the required examination volume was obtained. The percentage of coverage represents the aggregate coverage from all scans performed on the weld and adjacent base material. The 45° circumferential scans, both clockwise and counter-clockwise covered 100% of the examination volume and the 60° axial scan from the pipe side covered 100% of the examination volume. Scanning limitations caused by the valve configuration prevented scanning from both sides of the weld. In order to scan all of the required surfaces for the inspection of this weld, the valve would have to be redesigned to allow scanning from both sides of the weld, which is impractical. There were no recordable indications found during the inspection of this weld.

Paragraph F: (The flange and pipe material is stainless steel. Weld 1-51A-02-23BB has a diameter of 4 inches and a wall thickness of .531 inches.)

During the ultrasonic examination of weld 1-51A-02-23BB, 62.5% coverage of the required examination volume was obtained. The percentage of coverage represents the aggregate coverage from all scans performed on the weld and adjacent base material. The 45° circumferential scans, both clockwise and counter-clockwise covered 100% of the examination volume and the 60° axial scan from the pipe side covered 100% of the examination volume. Scanning limitations caused by the flange configuration prevented scanning from both sides of the weld. In order to scan all of the required surfaces for the inspection of this weld, the flange would have to be redesigned to allow scanning from both sides of the weld, which is impractical. There were no recordable indications found during the inspection of this weld.

Paragraph G: (The tee and elbow material is stainless steel. Weld 1HP-187-116 has a diameter of 4 inches and a wall thickness of .531 inches.)

During the ultrasonic examination of weld 1HP-187-116, 62.5% coverage of the required examination volume was obtained. The percentage of coverage represents the aggregate coverage from all scans performed on the weld and adjacent base material. The 45° circumferential scans, both clockwise and counter-clockwise covered 100% of the examination volume and the 60° axial scan from the elbow side covered 100% of the examination volume. Scanning limitations caused by the tee configuration prevented scanning from both sides of the weld. In order to scan all of the required surfaces for the inspection of this weld, the tee would have to be redesigned to allow scanning from both sides of the weld, which is impractical. There were no recordable indications found during the inspection of this weld.

Paragraph H: (The valve and pipe material is stainless steel. Weld 1HP-194-4 has a diameter of 4 inches and a wall thickness of .674 inches.)

During the ultrasonic examination of weld 1HP-194-4, 65.18% coverage of the required examination volume was obtained. The percentage of coverage represents the aggregate coverage from all scans performed on the weld and adjacent base material. The 45° circumferential scans, both clockwise and counter-clockwise covered 80.36% of the examination volume due to a sharp transition where the weld joins the valve body. The 60° axial scan from the pipe side covered 100% of the examination volume. Scanning limitations caused by the valve configuration prevented scanning from both sides of the weld. In order to scan all of the required surfaces for the inspection of this weld, the valve would have to be redesigned to allow scanning from both sides of the weld, which is impractical. There were no recordable indications found during the inspection of this weld.

V. Alternate Examinations or Testing

Paragraph I:

The scheduled 10-year code examination was performed on the referenced area/weld and it resulted in the noted limited coverage of the required ultrasonic volume. No additional examinations are planned for the area/weld during the current inspection interval.

VI. Justification for Granting Relief

Paragraph J:

Ultrasonic examination of areas/welds for item number B03.110 were conducted using personnel, qualified in accordance with ASME Section XI, Appendix VII of the 1995 Edition with the 1996 Addenda. The ultrasonic procedures used complied with the requirements of ASME Section V, Article 4, 1989 Edition with no addenda. Although 100% coverage of the examination volume could not be achieved, the amount of coverage obtained for this examination provides an acceptable level of quality and integrity. (See Paragraph L for additional justification.)

Paragraph K:

Ultrasonic examination of area/weld for item number B09.011 was conducted using personnel, equipment and procedures qualified in accordance with ASME Section XI, Appendix VIII Supplement 2 of the 1995 Edition with the 1996 Addenda as administered by the PDI. Although 100% of the required scanning could not be achieved, the amount of coverage of the examination volume obtained for this weld provides an acceptable level of quality and integrity. In addition to the volumetric examination with limited coverage, Duke Energy performed a surface examination (code required) on the B09.011 item and achieved 100% coverage. The result of the surface examination was acceptable. (See Paragraph L for additional justification.)

Duke Energy Corporation does not claim credit for coverage of the far side of austenitic welds. The characteristics of austenitic weld metal attenuate and distort the sound beam when shear waves pass through the weld. Refracted longitudinal waves provide better penetration but cannot be used beyond the first sound path leg. Duke Energy Corporation uses a combination of shear waves and longitudinal wave to examine single sided austenitic welds when the nominal material thickness exceeds 0.5 inch. A 70° shear wave angle beam is used to interrogate the far side of the weld when the nominal material thickness is equal to or less than 0.5 inch.

The procedures, personnel and equipment have been qualified through the Performance Demonstration Initiative (PDI). However, although longitudinal wave search units and 70° shear wave search units were used in the qualification and cracks were detected through the weld metal, PDI does not provide a qualification for single sided examination of similar metal austenitic piping welds.

In addition to the B09.011 weld that relief is being requested for limited scanning, there were 7 additional B09.011 welds that surface and volumetric examinations were performed on. The examinations didn't identify any recordable indications and 100% coverage was obtained on each of the 7 welds. The 7 additional welds were from the same system as the B09.011 weld of this request.

Paragraph L:

Duke Energy will use Class 1, Examination Category B-P, pressure testing and VT-2 visual examination to compliment the limited scan examinations. The Code requires that a pressure test be performed after each refueling outage for Class 1. These tests require a VT-2 visual examination for evidence of leakage. This testing provides adequate assurance of pressure boundary integrity.

In addition to the above Code required examinations (volumetric and pressure test), there are other activities which provide a high level of confidence that, in the unlikely event that leakage did occur through these welds, it would be detected and isolated. Specifically, leakage from these welds would be detected by monitoring of the Reactor Coolant System (RCS), which is performed once each shift under procedure PT/1,2,3/A/0600/10, "RCS Leakage". This RCS leakage monitoring is a requirement of Technical Specification 3.4.13, "Reactor Coolant System Leakage". Any leakage is also evaluated in accordance with this Technical Specification. The leakage could also be detected through several other methods. One is the RCS mass balance calculation. A second is the Reactor Building air particulate monitor. This monitor is sensitive to low leak rates; the iodine monitor, gaseous monitor and area monitor are capable of detecting any fission products in the coolant and will make these monitors sensitive to coolant leakage. A third is the level indicator in the Reactor Building normal sump. A fourth is a loss of level in the Letdown Storage Tank. Based on the results of the required volumetric, surface and VT-2 examinations performed during this outage, it's Duke's belief that this combination of examinations provides a reasonable assurance of component integrity.

Paragraph M:

Ultrasonic examination of areas/welds for the item numbers C05.021 were conducted using personnel, equipment and procedures qualified in accordance with ASME Section XI, Appendix VIII Supplement 2 of the 1995 Edition with the 1996 Addenda as administered by the PDI. Although 100% coverage of the examination volume could not be achieved, the amount of coverage obtained for each of these welds provides an acceptable level of quality and integrity. In addition to the volumetric examinations with limited coverage, Duke Energy performed a surface examination (code required) on the each of the C05.021 items and achieved 100% coverage. The results from the surface examinations were acceptable. (See Paragraph N for additional justification.)

In addition to the C05.021 welds that relief is being requested for limited scanning, there were 12 additional C05.021 welds that surface and volumetric examinations were performed on. The examinations didn't identify any recordable indications and 100% coverage was obtained on each of the 12 welds. The 12 additional welds were from the same system as the C05.021 welds of this request.

Duke Energy Corporation does not claim credit for coverage of the far side of austenitic welds. The characteristics of austenitic weld metal attenuate and distort the sound beam when shear waves pass through the weld. Refracted longitudinal waves provide better penetration but cannot be used beyond the first path leg. Duke Energy Corporation uses a combination of shear waves and longitudinal waves to examine single sided austenitic welds when the nominal material thickness exceeds 0.5 inch. A 70° shear wave angle beam is used to interrogate the far side of the weld when the nominal material thickness is equal to or less than 0.5 inch.

Paragraph N:

Duke Energy will use Class 2, Examination Category C-H, pressure testing and VT-2 visual examination to compliment the limited examination coverage. The Code requires that a pressure test be performed once each period for Class 2 items. These tests require a VT-2 visual examination for evidence of leakage. This testing provides adequate assurance of pressure boundary integrity.

In addition to the above Code required examinations (surface and pressure test), there are other activities which provide a high level of confidence that, in the unlikely case that leakage did occur through these welds, it would be detected and isolated. One is that leakage from these welds would be detected by Operations personnel during their regular rounds (reference OP/1/A/1102/020A). The Nuclear Equipment Operator has been trained to look for any unusual conditions, such as leaks. In addition, the procedure addresses leaks as being an item to consider during rounds. The C05.021 items in this request are located in an area where operations personnel will be walking through as part of their rounds; therefore, any leak would be identified by visual observation.

Duke Energy has examined the welds/components referenced in this request to the maximum extent possible utilizing the latest in examination techniques and equipment. The welds/components identified in Section I of this request were rigorously inspected by volumetric NDE methods during construction and verified to be free from unacceptable fabrication defects. Based on the coverage and results of the required volumetric exams and surface exams this outage and the pressure testing (VT-2) exams, it is Duke's belief that this combination of examinations provides a reasonable assurance of component integrity.

VII. Implementation Schedule

Paragraph O

The scheduled third 10-year interval plan code examination was performed on the referenced areas/welds resulting in limited scan and volumetric coverage. No additional examinations are planned for the areas/welds during the current inspection interval. The same areas/welds may be examined again as part of the next (fourth) 10-year interval plan, depending on the applicable code year edition and addenda requirements adopted in the future.

VIII. Other Information

The following individuals contributed to the development of this relief request:

James J. McArdle (NDE Level III Inspector) provided Sections II through V and part of Section VI.

B. W. Carney, Jr. (Oconee Engineering) provided part of Section VI.

Larry C. Keith (Oconee ISI Plan Manager) compiled the remaining sections.

Sponsored By: Rarry Co Keith Date 6-28-04

Approved By: L. Revier Physics Date 6/28/04

		WELD	LIST			BIL	L OF M	ATERIA	L:			(32) SAFE	END		4		AT:	TACHMENT "A
	IDENT	PIECE	DIAM.	THICK.	PC.	QTY	DESCR	IPTIÓN.	MATL.			(31) NOZZI	LE	WP33-17 (W_V 01				
	NO. WPI-1	NO.	N/A	6.188	1		UPPER SHEL	L COURSE	SA 212	WP33~3) (7.W 0	UADRANT)	/\\		Mbal -12 (4-7 d)	JADRANT) :	•		
		2 TO 2	N/A	6.188	2		MIDDLE SHEL		GR. B SA 212 GR. B	WP91-35 (2-W 0)	UAURANI)		WP 45	4 5	•	X		
	WPI -3	3 TO 3	N/A	6.188	3:	1	LOWER SHEL		SA 212			了四下	1/	WP34		Î		
	WP3-1	I TO 2	84" I. D.	6,188	4	1	HEATER BEL		GR. B SA 212 GR. B			1/ 3	Ø:	(9) WP76	WP82-X		WP82-XY	
	WP3-2	2 TO 3	84" I.D.	6.188	5	1	UPPER HEA	D	SA 212 GR. B	WP 33-2			40	30 (42)		NA PORTINE	$\qquad \qquad \checkmark \diamondsuit$	
		3 TO 4 B 41	84" I.D.	6.188	6		LOWER HEA	D	SA 212 GR. B	(X-Y QUAD)-	···	1	. k₹		P82-WX	41)	WP82-	Υ
	WP6	40 TO 41	84" I.D.	13.563	8	1.1	PRESSURIZE NOZZLE	R SURGE	SA 508 CL.1	W P 91-2		.			· 📥	O_{0}	Y	
	WP7-1	4 TO 40841	N/A	6.188	9	1	PRESSURIZE NOZZLE	R SPRAY	SA.508 CL.1	1	①——				w- <u>—</u>	01		•
•		4 TO 40841	N/A	6.188	30	76	SAMPLING N	OZZLE .	SA. 508 GR. B				-		WP82-W		WP82-	YZ
į	WPI5	6 · TO 8 ·	•	4.750	31	3	PRESSURIZE NOZZLE	R RELIEF	SA.508 CL. I		WPI-1-		.	/ /·				•
	WP23	8 TO 37	10" NPS	1.063	32	3	PRESSURIZE NOZZLE SAF	R RELIEF		1					WP82-Z	7 M.	WP82-Z	•
	WP26-1	30 TO 4		6,188	.37	1.	PRESSURIZE NOZZLE SA	R SURGE	SA 336 · CL. F8M	1			\neg	\	W182-2	Ž		
	WP26-2	30 TO 4	· ·	6, 188	40	1	LOWER HEA			1		1	- [WP3-1		TOP VIE	EW	
	WP26-3	30 TO 4	.	6.188	41	1	UPPER HEA	TER BELT		1	(2)			`		•		
•	WP26-4	30 TO I		6.188	42	1/6	SAMPLING I	OZZLE	SB-166	1					\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
·	WP26-5	30 TO I		6.188	45	1	PRESSURIZE NOZZLE SAF	R SPRAY.	SB-166			<u> </u>				WP	63-4 (W-X QUAD	RANT)
Ì	WP26-6	30 TO I		6,188	110	8	PRESSURIZER	SUPPORT	SA-516 GR. 70	•				-WPI-2			63-5 (Y-Z QUAD 63-6 (Z-W QUAD	
	WP26-7.	30 TO 4	•	6.188	·					REFERENCE DWGS.	·			-WP3-2			00 0 (2 11 40)	
)	WP28	6T04840	84" I.D.	4.750						OM 201-1001				•			(W-X QUADRANT (Y-Z QUADRANT	
}	WP33-1	31 TO 5		4.750						1				WPI-3			(Z-W QUADRANT	
	WP33-2	31 TO 5		4.750	1				115	1 .			血) (:	· · · · · · · · · · · · · · · · · · ·	٠.	
	WP33-3	31 TO 5	•	4.750 ·			·		• :							\ 		•
	WP34	9 TO 5		4.750			·	. ••	·	WP7-1 (Y-Z QUAD.)	3		-					•
	WP45	45 TO 9 .	4"NPS	0.750	,	125.7				HF7-1 (1-2; GOAG)			_{	WP4		//	3	•
	WP63∸I	42.T0 30	:	1.1875						WP26-1 (W-X QUAD.)			₩	—41		\sim		
	WP63-2	42 TO 30	:,	1.1875				·		WP26-2 (Y-Z QUAD.) -WP26-3 (Z-W QUAD.)			10	· · · · · · · · · · · · · · · · · · ·	(0		
	WP63-3	42 TO 30	• .	1.1875	· ;					WP26-7(Z-W QUAD.)			11	-WP6	VE.		4	•
	WP63-4	42 TO 30		1.1875		: :		•			4 39	$\langle 1 0 \rangle$	スだし	;	(40)	MI		•
	WP63-5	42 TO 30		1.1875				•					40)		~ 7 /		WP7-	2 (W-X QUADRANT)
	WP63-6	42 TO 30		1.1875	·						42	<u> </u>	-74	40		7		
	WP76	1 TO 5	84" I.D.	4.750				·					7	WP28	7	<u> </u>	~	
	WP82-X	110 TO 3	N/A	3,500 ·		ļ				WP63-1 (W-X QUAD.) WP63-2 (Y-Z QUAD.)	6)	`	/ .			•	. (6)	
	WP82-XY	110 TO 3	N/A	3.500	1	WEL	D LIST	(CONT.)		WP63-3 (Z-W QUAD.)	(8)						•	•
	WP82-Y	110 TO 3	N/A	3.500	1. D.	NO.	PC. NO.	DIAM.	THICK.	WP63-7 (Z-WQUAD.)	(37 ·	P23	REV. WELD GUAD.	15-1-90 Mario	40-10-90		
٠٠. ا	.WP82-YZ	110 TO 3	·N/A	3.500	 	91-1	31 TO 32			NOTES:		·		Lod. Zef. Duigs.	AVIS AJH	JOB	TITLE	
الجسد	WP82-Z	110 TO 3	N/A	3.500			. 31 TO 32	2 1/2"NPS		I.ALL I.D. NUMBERS SHALL BE PR	ECEDED BY"II	PRZ-"	<u> </u>		7/23/31 7-23-2 AWS 17111		PRESSURITE	R WELD OUTLINE
	WP82-ZW	110 TO 3	N/A	3.500	 		31 TO 32			2.PIECE NUMBERS ARE SHOWN IN	CIRCLES.		0	OR IG.	1/21/81 7/2	3 43.70	· ILOUGHIELI	
•		110 TO 3	N/A	3,500	WP	63-7	42T030	SAMPLING	1.1875				NO.	REVISION	DRWH RVY	YD APPD	DWG NO.	OCNI- OO2 REV.
	WP82-WX	110 TO 3	N/A	3,500		! \			l						DATEDAT	EDATE	151	-OCNI-002 2
•				•		•-								•				

UT Vessel Examination



Site/Unit:		Oconee / 1				Procedure:	NDE-640		Outage N	lo.: <u>Ol</u>	VS1EOC2	1
Summa	ry No.:	B03,	110.011		Pro	ocedure Rev.:	2		Report N	lo.:	JT-03-206	
Work	(scope: _	ISI		 -	Work Order No.:		98403077	·	Page: <u>1</u>		of	1
Code:	Se	ction XI, 19	89	Cat./Item:	: B-D-/	B3.110.11	Location:		N/A			
Drawing No.:		ISI O	CN1-002		Description	on: Pzr Nozzle t	to Shell					
System ID:	50											
Component ID:	B03.110	0.011 /1-PZF	R-WP26-3				Size/Length:	N/A	Thickness/D	iameter:	5.75 / 6.	187 _
Limitations:	YES						Sta	rt Time:	1326 Fini	sh Time:	1329	<u> </u>
Examination S	Surface:	Inside [] 0	utside 🗹	Surface	Condition: AS G	ROUND				_	
Lo Location:		9.2.3		Wo Location:	Centerline	e of Weld	Couplant:	ULTRAGE	LII Batc	n No.:	0122	5
Temp. Tool M	1fg.:	·FISHE	R	Serial No.:	MCNDE	32769	Surface Temp.:	80	°F			
Cal. Report N	lo.:				CAL-03-28	36						
Angle Used	0	45 45	T 60	60T	<u> </u>							
Scanning dB	29.5											
Indication(s):	Yes [No ☑		·	, Scan Coverage:	: Upstream [✓]	Downstream 🗸	cw⊌	ccw √			
Commenter	_					, , , , , ,			,			
Comments:												
FC 03-20												
Results:	Acce	ept 🗹	Reject 🗀	Info 🔲								
Percent Of C	overage C	Obtained > 9	0%:	No	Reviewed P	Previous Data:	Yes	- ·				
Examiner	Level II			Signature		Date Reviewer	0,	.00	Signature			Dat
Mauldin, Larr		Law	24	reulder	9/28/2		May 1	Moss		10	-5.03	
Examiner Potter, Micha	Level II.	./ // /		Signature	9/28/2	Date Site Review	w 1		Signature			Date
	Level	1 luh	1.1	Signature		Date ANII Revie	, , , , , , , , , , , , , , , , , , ,	00.11	Signature/,	. /-	1-1	Dat
							Winey (-Kitchel	Signature	_ /%	13/02	

Duke Energy.

UT Vessel Examination

Site/Unit: Oconee / 1 Summary No.: B03.110.011 Workscope: ISI			Procedure: Procedure Rev.: Work Order No.:			NDE-820 1 98403077			Outage No.: Report No.: Page:	U'	S1EOC: T-03-200 of					
Code:		ection X			Ca	Cat./item: B-D- /B3.110.11		Location:		N/A						
Drawing No.:		18	SI OCN1	-002			Description	n: Pzr Nozzle t	o Shell							
System ID:	50															
Component ID:	B03.1	10.011 /1	-PZR-W	P26-3					Size/Leng	gth: _	N/A	Thi	ckness/Dian	neter: _	3.75 / 6	.187
Limitations:	YES				·· ·					Start	Time:	1310	Finish '	Time:	132	6
Examination S	urface:	Insi	đe 🔲	Οι	itside 🔽		Surface C	ondition: AS G	ROUND							
Lo Location:		9.2	2,3		_ Wo Loc	ation: _	N//	<u>4</u>	Couplant:		ULTRAGE	LII	_ Batch N	o.:	0122	25
Temp. Tool M	fg.:	FI	SHER	····	_ Seria	al No.: _	MCNDE	32769	Surface Te	mp.:	80	°F				
Cal. Report No	o.:			_		C	AL-03-269, CAL-	03-275								
Angle Used	0	45	45T	60	60T	·										
Scanning dB		60	60	70.5	70.5											
Indication(s):	Yes	□ N	• <u>A</u>		<u> </u>	;	Scan Coverage:	Upstream ☑	Downstrea	m 🗹	cw₽	CCV	٧V			
Comments:																
FC 03-31																
Danulla			D.			_										
		cept 🔽	_	_			•	· · · · · · · · · · · · · · · · · · ·							,	
Percent Of Co	verage	Obtained	i > 90%:		No / 68.6%	'	Reviewed Pro	evious Data:	Yes		,					
Examiner I Mauldin, Larry	Level	<u> </u>	La	in)	Signature Mal		D 9/28/20	ate Reviewer	Har	1	Mos	•	nature	10.9	7-03	Date
	Level	II-N	Mi	WZ.	Signature		D 9/28/20	ate Site Review		7	<u> </u>		nature			Date
Other	Level			,	Signature	•	D	ate ANII Revie	Joney C	Rit	the Sto	ing the	nature 10/13	3/03		Date

Duke Energy,

Supplemental Report

Attachment B Page 3 of 60

	riepoit ito		1-03-2	.00
	Page:	2	_ of	2
ummary No.: B03.110.011		-		
Examiner: Mauldin, Larry E. Jan & Mullipyel: 11 Reviewer: David (2)		Date:	10/0	1/03
Examiner: Potter, Michael E. M. Level: II-N Site Review:	/	Date:		
Other: Level: ANII Review: Niney CRiter	be Sloutte	Date:	10/13	3/03
		_		

Comments: ISI LIMITATION REPORT-SEE ATTACHED SHEET

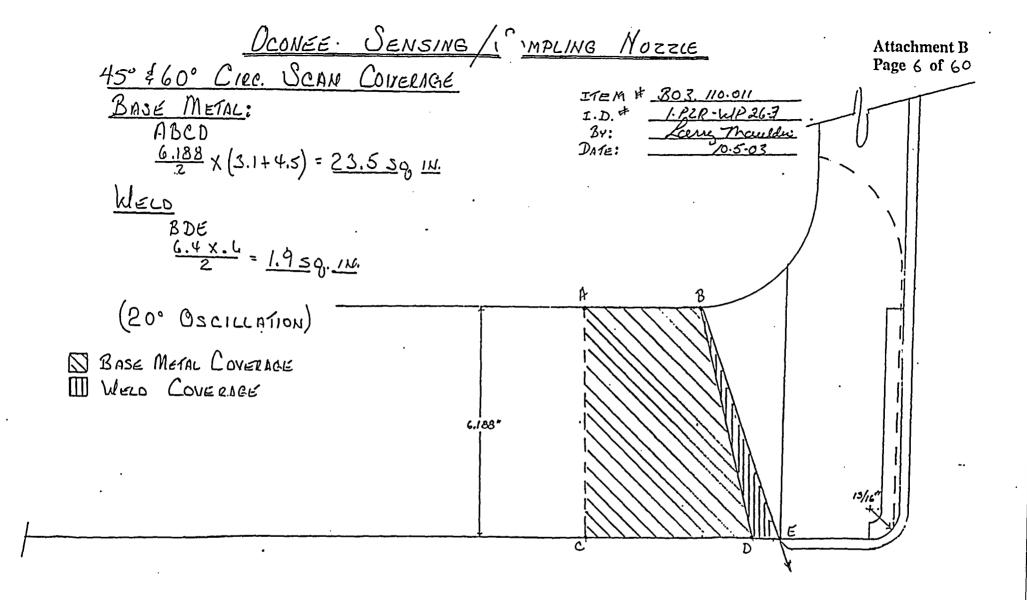
Sketch or Photo:

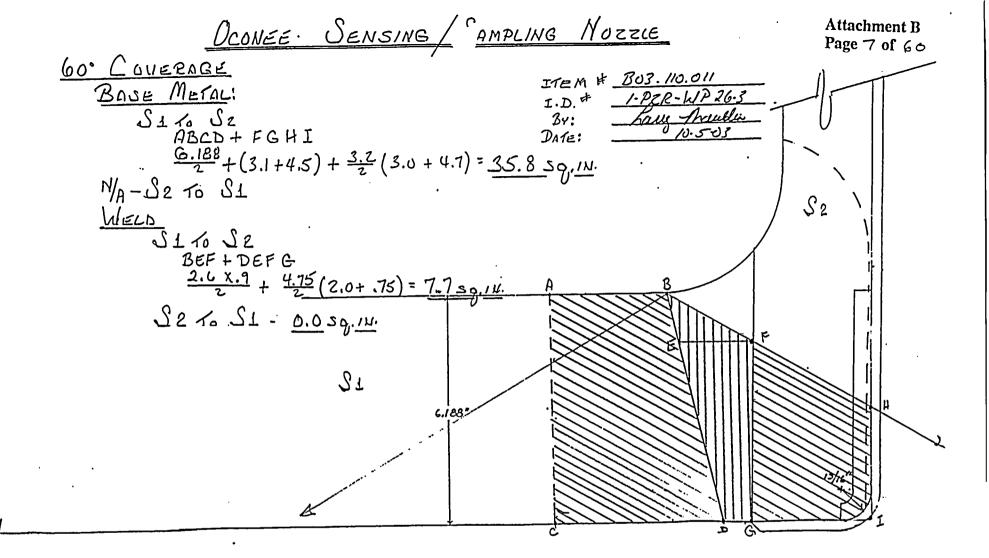
DU			ONS1EOC21			
	ISI LIMITA	TION REP	ORT			UT-03-200
Component/Weld ID: 1-PZR-WI	26-3	Item No: <u>B03</u> -	-110.011		remarks:	
⊠ NO SCAN	SURFACE	BEA	Due to Nozzle Configuration			
☐ LIMITED SCAN		2 🛭 1	☑ 2 ⊠ cw	⊠ ccw		
FROM L NA to L NA	INC	HES FROM WO	_1.0" to _E	Beyond_		
ANGLE: ⊠ 0 ⊠ 45 ⊠ 60	other	FROM 0	DEG to _3(60 DEG		
☐ NO SCAN	SURFACE	BEA	M DIRECTION	_		
☐ LIMITED SCAN	□ 1 □ :	2 🗌 1 🛚	2 cw	☐ ccw		
FROM L to L	INC	HES FROM WO	to		•	
ANGLE: 0 45 60	other	FROM	DEG to	DEG		
☐ NO SCAN		-		-		
☐ LIMITED SCAN	□ 1 □	2 🗌 1 🛭	2 🗌 cw	☐ ccw		
FROM L to L	INC	CHES FROM WO	to	<u> </u>		
ANGLE: 0 0 45 0 60	other	FROM	DEG to	DEG		
☐ NO SCAN	SURFACE	BEA	M DIRECTION			
☐ LIMITED SCAN	<pre>1 []</pre>	2 🗌 1 [] 2	☐ ccw		
FROM L to L	INC	CHES FROM WO) to _		Sketch(s) attached
ANGLE: □ 0 □ 45 □ 60	other	FROM	DEG to	DEG	⊠ yes	☐ No
Prepared By: Larry Mauldin	New Mex Leve	l: II Date:	09/28/2003	Shee	t <u>2</u> of	2
Reviewed By: Denilk	Date	: 10/07/03	Authorized Inspec	tor:	Sloughter	Date: /0/13/03

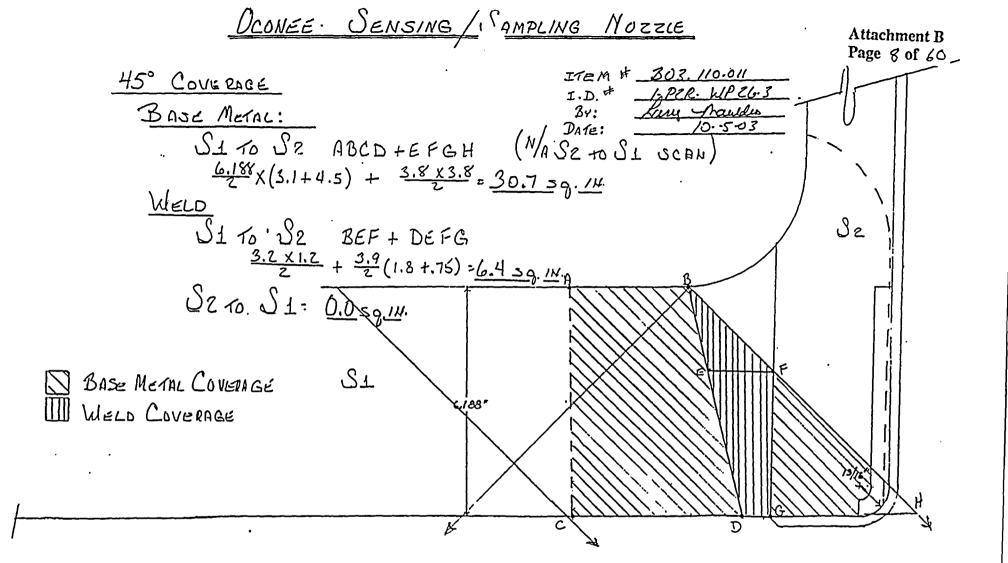


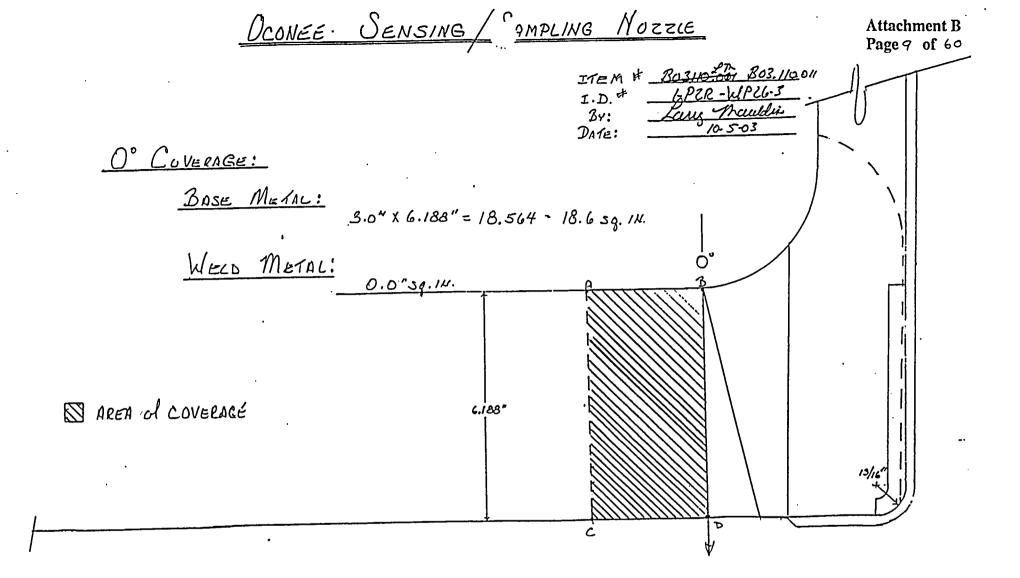
Determination of Percent Coverage for UT Examinations - Vessels

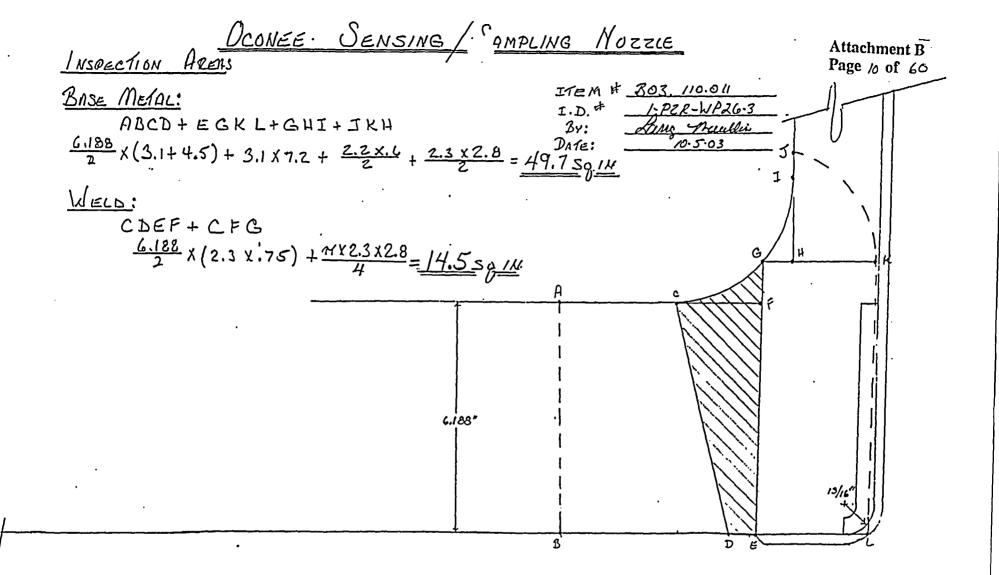
Site/Unit:	W3 1			re: <u>NDF-640, NDE-82</u>		
nary No.:	B03.110.0	<u> </u>	Procedure Re	v.:	Report No.	<u>UT-03-2</u>
orkscope:	15/	,	Work Order No	o: <u>984 030 77</u>		
0 deg Plan	ar				·	
Scan _	100	% Length X	37. 42	_ % volume of length / 100 =	<u> 37.42</u>	% total for 0 d
<u>45 deq</u>					·	
Scan 1	100.	% Length X	61.7	% volume of length / 100 =	41.7	% total for Sca
Scan 2	100	% Length X	D	_ % volume of length / 100 =		% total for Sca
Scan 3	100	% Length X	47.28	_ % volume of length / 100 =	47.28	% total for Sca
	•	" % Length X		% volume of length / 100 =		% total for Sca
Add tot		e by # scans =	<u>39.06</u> %	total for 45 deg		
Other deg	_60	-			<i>53./</i> 0	% total for Sca
Other deg Scan 1	<u>60</u>	- % Length X	53.10	total for 45 deg % volume of length / 100 = % volume of length / 100 =-		•
Other deg Scan 1	_60	-	53.10 0	_ % volume of length / 100 =	0	% total for Sca % total for Sca % total for Sca
Other deq Scan 1 Scan 2	_60 06 00	% Length X % Length X	53.10 0 13	_ % volume of length / 100 = _ % volume of length / 100 =-	13	% total for Sca
Other deq Scan 1 Scan 2 Scan 3 Scan 4	60 106 100 100	- % Length X % Length X % Length X % Length X	53.10 0 13	_ % volume of length / 100 = _ % volume of length / 100 =- _ % volume of length / 100 =	13	% total for Sca % total for Sca
Other deq Scan 1 Scan 2 Scan 3 Scan 4	60 106 100 100	- % Length X % Length X % Length X % Length X	53.10 0 13	_ % volume of length / 100 = _ % volume of length / 100 =- _ % volume of length / 100 = _ % volume of length / 100 =	13	% total for Sca % total for Sca
Other deq Scan 1 Scan 2 Scan 3 Scan 4 Add tot	60 106 100 100	Length X Length X Length X Length X Length X by # scans =	53.10 0 13	_ % volume of length / 100 = _ % volume of length / 100 =- _ % volume of length / 100 = _ % volume of length / 100 =	13	% total for Sca % total for Sca
Scan 1 Scan 2 Scan 3 Scan 4 Add tot	60 106 100 100 als and divid	- % Length X - % Length X - % Length X - % Length X - e by # scans =	53.10 0 13 13 19.47 %	_ % volume of length / 100 = _ % volume of length / 100 =- _ % volume of length / 100 = _ % volume of length / 100 =	13	% total for Sca % total for Sca
Scan 1 Scan 2 Scan 3 Scan 4 Add total	106 100 100 als and divid	- % Length X - % Length X - % Length X - % Length X - e by # scans =	53.10 0 13 13 19.47 %	_% volume of length / 100 = _% volume of length / 100 = _% volume of length / 100 = _% volume of length / 100 = _total for deg	13	% total for Sca % total for Sca
Scan 1 Scan 2 Scan 3 Scan 4 Add total	106 100 100 als and divid	- % Length X _ % Length X _ % Length X _ % Length X e by # scans =	53.10 0 13 13 19.47 %	_% volume of length / 100 = _% volume of length / 100 = _% volume of length / 100 = _% volume of length / 100 = _total for deg	13	% total for Sca











UT Vessel Examination



Site/Unit: . Summary No.:		Oconee / 1 B03.110.012		·	Procedure: _ Procedure Rev.:	NDE-640 2		Outage Report	NS1EOC21 JT-03-207	1	
Works	•		SI	· · · · · · · · · · · · · · · · · · ·	Work Order No.:	98403077		•	age: 1	of	1
Code:	S	ection XI, 198	9	Cat./Item:	B-D-/B3.110.12	Location:		N/A			· · · · · ·
Drawing No.:	<u> </u>	ISI OC	N1-002	· ,	Description: Pzr Nozzle	to Shell				·	,
System ID:	50										
Component ID:	B03.11	0.012 /1-PZR	-WP26-7			_ Size/Length: _		_ Thickness/		5.75 / 6.	187
Limitations:	YES					Sta	rt Time:	1329 Fir	ish Time:	1331	
Examination Su	ırface:	inside [) O	utside 🔽	Surface Condition: AS	GROUND					
Lo Location:		9.2.3		_ Wo Location: _	Centerline of Weld	Couplant:	ULTRAGE	LII Bat	ch No.:	01225	<u> </u>
Temp. Tool Mfg	g.:	FISHE	₹ .	Serial No.:	MCNDE32769	Surface Temp.:	80	°F			
Cal. Report No.	. :				CAL-03-286						
Angle Used	0	45 45	T 60	[60T]	•						
Scanning dB	29.5										
·Indication(s):	Yes	□ No 🗹	<u> </u>	. 	Scan Coverage: Upstream ✓	Downstream 🗹	cw ☑	ccw. ☑			
Comments:											
FC 03-20											
FG 03-20											
Danishas	٨٠		Daisat 🗆	Info [T							
		· -	Reject 🔲	_						·	
Percent Of Cov	verage	Obtained > 90)%:	No	Reviewed Previous Data:	Yes					
1	evel _[7	Signature	Date Reviewer	X A // /	$\overline{\gamma}$	Signature			Date
Mauldin, Larry			m E	Maulder	9/28/2003	/ 55. // / .	11020	Cianatura	/0	-5-03	Det
Examiner L Potter, Michael	.evel ¡ I E.	I-N Mil	العرال ا	Signature	Date Site Revie	*W / /		Signature			Date
	evel.	/ ٧٠٠		Signature	Date ANII Revi	ew ney CRitch	Slaug	Signature	10/13	63	Date

UT Vessel Examination



Site/Unit:	Oconee / 1		Procedure:	NDE-820		Outage No.: ONS1E		
Summary No.:	B03.110.012		Procedure Rev.:	1		Report No.:	T-03-201	
Workscope	ISI		Work Order No.:	98403077	· · ·	Page: 1	of . <u>2</u>	
Code:	Section XI, 1989	Cat./Item:	B-D-/B3.110.12	Location:		N/A		
Drawing No.:	ISI OCN1-002		Description: Pzr Nozzle 1	to Shell				
System ID: 50								
Component ID: B03.	110.012 /1-PZR-WP26-7			Size/Length:	N/A TI	nickness/Diameter:	5.75 / 6.187	
Limitations: YES				Star	t Time: 1316	Finish Time:	1331.	
Examination Surface	e: Inside 🗌 C	Outside 🔽	Surface Condition: AS G	ROUND				
Lo Location:	9.2.3	Wo Location:	N/A	Couplant:	ULTRAGEL II	Batch No.:	01225	
Temp. Tool Mfg.:	FISHER	Serial No.:	MCNDE32769	Surface Temp.:	80°F			
Cal. Report No.:		CA	L-03-269, CAL-03-275			_		
Angle Used (O 45 45T 60	. 60T						
Scanning dB	60 60 70.5	70.5						
Indication(s): Yes	s No 🗸	s	can Coverage: Upstream ✓	Downstream ☑	cw cc	w 🗹		
Comments:								
FC 03-31			•					
1 0 00-01								
Results: A	econt [7] Point [7]	l Info [
	ccept 🗹 Reject 🗀	_						
Percent Of Coverag	e Obtained > 90%:	No / 68.6%	Reviewed Previous Data:	Yes	••			
Examiner Level	// /_	Signature	Date Reviewer	М	1 M Sig	gnature	Date	
Mauldin, Larry E. Examiner Level	Laux	Maubles	9/28/2003 Date Site Revie	Jan/	1/1020		-9-03 Date	
Potter, Michael E.	II-N Min	Signature	9/28/2003	w /	الع	ynaure	Date	
Other Level		Signature	Date ANII Revie	Doney C R. L	te Slought	gnature 10/13/0	Date	
·				(/		<u>, , , , , , , , , , , , , , , , , , , </u>	<u> </u>	

Duke Energy.

Supplemental Report

Attachment B Page 13 of 60

· 斯克特· · 阿尔西克斯克曼斯克· · · · · · · · · · · · · · · · · · ·	neport No		1-03-2	01	_
	Page:	2	of	2	
_ummary No.: B03.110.012					•
Examiner: Mauldin, Larry E. Land Markey !: 11 Reviewer: David K. S.		Date:	10/0	7/03	
Examiner: Potter, Michael E. Level: II-N Site Review:		Date:			
Other: Level: ANII Review: Noney CRita	te Slaukte	Date:	10/13	103	
\boldsymbol{v}	0		•		

Comments: ISI LIMITATION REPORT—SEE ATTACHED SHEET

Sketch or Photo:

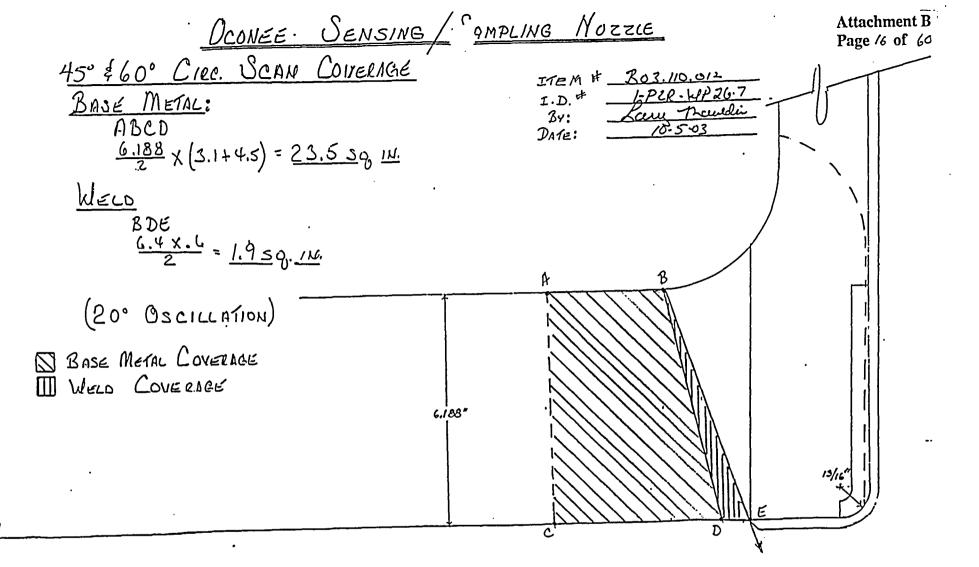
DU		ONS1EOC21								
		UT-03-200								
Component/Weld ID: 1-PZR-WI	remarks:									
⋈ NO SCAN	Due to Nozzle Co	onfiguration								
☐ LIMITED SCAN	☐ LIMITED SCAN ☐ 1 ☐ 2 ☐ 1 ☐ 2 ☐ cw ☐									
FROM L NA to L NA	INCHE	ES FROM W0 1.0" to	Beyond							
ANGLE: ⊠ 0 ⊠ 45 ⊠ 60	other	FROM 0 DEG to	360 DEG							
☐ NO SCAN	SURFACE	BEAM DIRECTION	1							
☐ LIMITED SCAN	□ 1 □ 2	1 2 cw	Ccw							
FROM L to L	FROM L to L INCHES FROM W0 to									
ANGLE: 0 45 60	other	FROM DEG to _	DEG							
☐ NO SCAN										
☐ LIMITED SCAN	□ 1 □ 2	☐ 1 ☐ 2 ☐ cw	☐ ccw							
FROM L to L	INCHI	ES FROM W0 to	7-7-1-1							
ANGLE: 0 0 45 0 60	other	FROM DEG to _	DEG							
☐ NO SCAN										
☐ LIMITED SCAN	□ 1 □ 2	☐ 1 ☐ 2 ☐ cw	☐ ccw							
FROM L to L	M L to L									
ANGLE: 0 45 60 Prepared By: Larry Mauldin Larry Beviewed By:	Mauldy Level:	II Date: 09/28/2003	Shee	et 2 of	2					
Reviewed By:	Date:	Authorized Inspe	ector: ,),	a PAA CI	Date: 10/2/2					

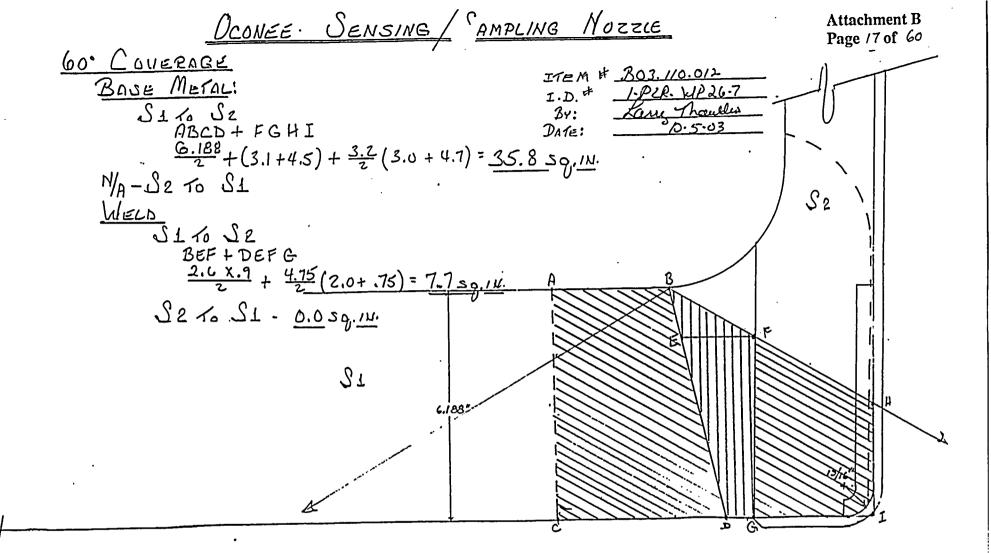


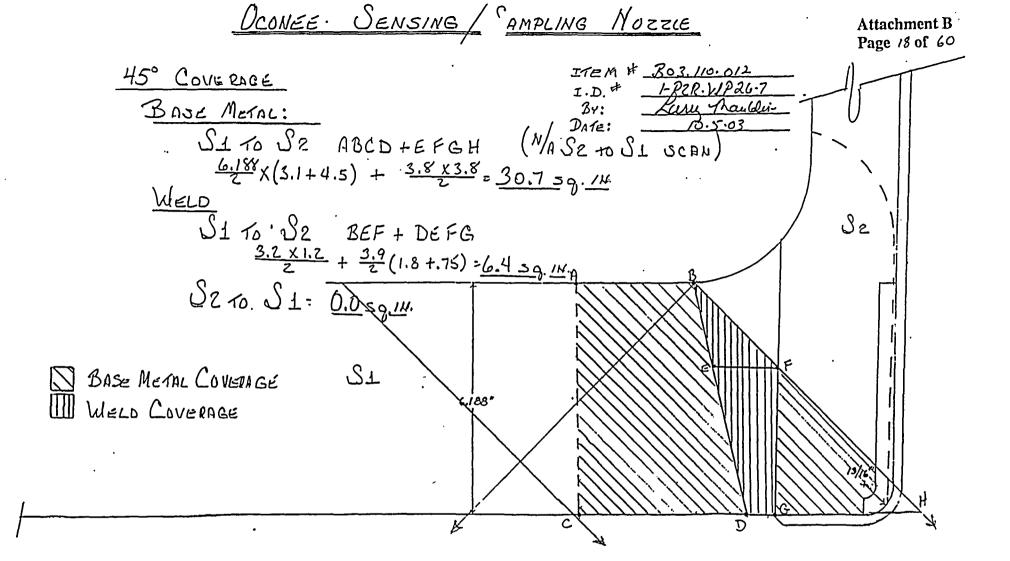
Determination of Percent Coverage for UT Examinations - Vessels

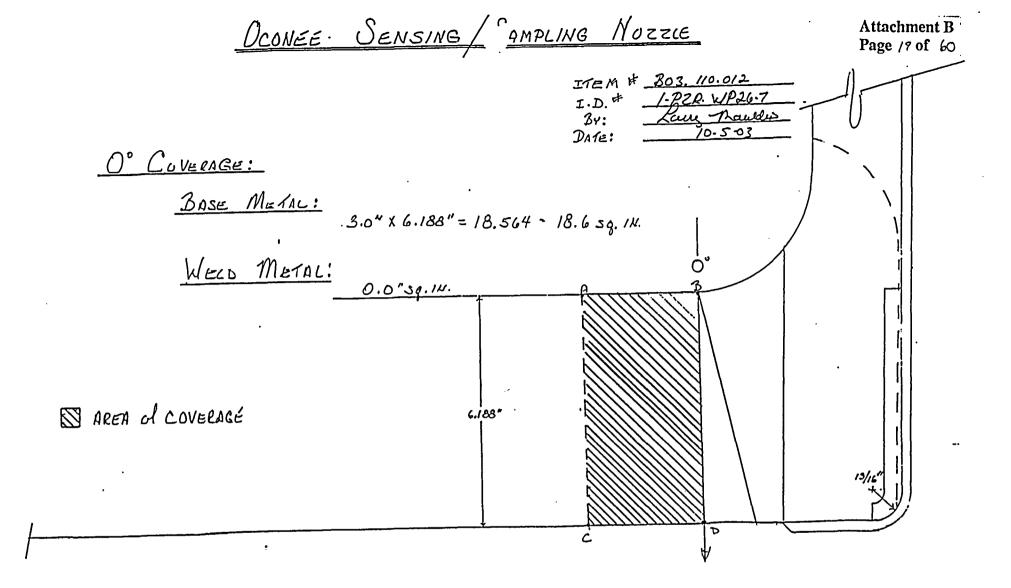
	1503.//4		Procedure Re Work Order N	0-1	_	
0 deg Plana	<u>r</u>					
Scan	/0	% Length X	37.42	% volume of length / 100 = _	37.42	% total for 0 de
45 deg						
Scan 1	100	% Length X _	61.7	% volume of length / 100 = _	61.7	% total for Sca
Scan 2	100	% Length X	0	_ % volume of length / 100 = _	6	% total for Sca
Scan 3	100	% Length X	47.28	% volume of length / 100 = _	47.28	% total for Sca
Scan 4	100	% Length X	47.28	_ % volume of length / 100 = _	47.28	% total for Sca
Add tota		e by # scans =	<u>39.06</u> 9	% total for 45 deg		
Other deg	<u>60</u>	e by # scans = % Length X		% total for 45 deg % volume of length / 100 = _	53./0	.% total for Sca
Other deg Scan 1	<u>60</u>	- ,	53.P			•
Other deg Scan 1	60 00 00	- % Length X	53.P	% volume of length / 100 = _	0	% total for Sca
Other deq Scan 1 Scan 2	_60 100 100	- % Length X % Length X	53./D 0 /3	% volume of length / 100 = _ % volume of length / 100 =	13	% total for Sca % total for Sca
Other deq Scan 1 Scan 2 Scan 3 Scan 4		- % Length X _ % Length X _ % Length X _ % Length X	53./D 0 /3 /3	% volume of length / 100 = _ % volume of length / 100 = _ % volume of length / 100 = _	13	% total for Sca % total for Sca
Other deq Scan 1 Scan 2 Scan 3 Scan 4		% Length X % Length X % Length X % Length X _ % Length X	53./D 0 /3 /3	% volume of length / 100 = % volume of length / 100 = % volume of length / 100 = % volume of length / 100 =	13	% total for Sca % total for Sca
Scan 1 Scan 2 Scan 3 Scan 4 Add total	/OD /OD /OD /OD Is and divide	% Length X % Length X % Length X % Length X e by # scans =	53.10 0 13 13.19.77 9	% volume of length / 100 = % volume of length / 100 = % volume of length / 100 = % volume of length / 100 =	13	% total for Sca % total for Sca
Scan 1 Scan 2 Scan 3 Scan 4 Add total	/OD /OD /OD /OD Is and divide	- % Length X - e by # scans =	53.10 0 13 13.19.77 9	_ % volume of length / 100 = _ % total for & deg	13	% total for Sca % total for Sca
Scan 1 Scan 2 Scan 3 Scan 4 Add total	/OD /OD /OD /OD Is and divide	% Length X % Length X % Length X % Length X e by # scans =	53.10 0 13 13.19.77 9	_ % volume of length / 100 = _ % total for & deg	13	% total for Sca % total for Sca % total for Sca % total for Sca

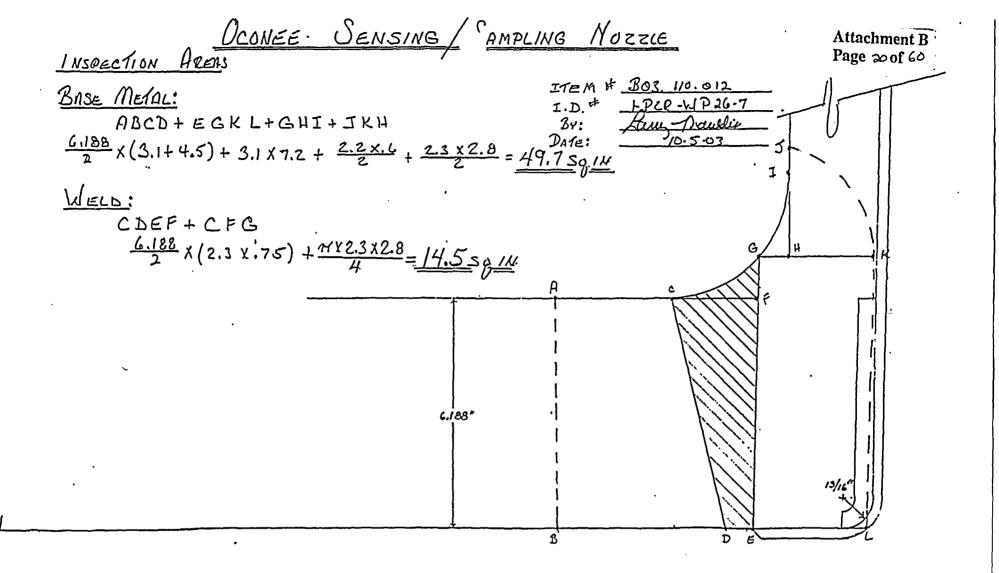
Site Field Supervisor:











UT Pipe Weld Examination



Site/Unit: Summary No.:		Oconee /	1	•		Procedure: _	NDE-600		Outag	e No.: <u>ON</u>	IS1EOC2	1
		B09.011.111				Procedure Rev.:	15		Repo	T-03-265		
Wor	kscope:		ISI		Work Order		98403309)	•	Page: 1	_ of	4
Code: Se		ction XI, 19	89	C	at./Item:	B-J-/B9.11.111	Location:		N.	'A		
Drawing No.:		1LP	-140			Description: Elbow to Va	alve (1LP-1)					<u> </u>
System ID:	53A			•								<u>;</u>
Component ID:	B09.011	.111 /1LP-140-8A					Size/Length:	12.0 / SS	Thickness	1.125		
Limitations:	Yes						Sta	art Time:	0905 F	inish Time:	0932	2
Examination S	Surface:	inside		Outside 🕢		Surface Condition: AS	GROUND					
Lo Location:		9.1.1.1		Wo Loca	tion:	Centerline of Weld	Couplant:	ULTRAGE	ELII B	atch No.:	0122	5
Temp. Tool M	fg.:	FISH	ER	Serial	No.:	MCNDE32769	Surface Temp.:	72	_ °F			
Cal. Report N	o.:			CAL-03-363, 0	CAL-03-36	64, CAL-03-365						
Angle Used	0	45	45T 60	60RL		1						
Scanning dB		1 4	13.0 38.	5 54								
Indication(s):	Yes 	No]		Sca	un Coverage: Upstream 🗹	Downstream ✓] cw ☑	ccw ☑			
Comments:												
	Accept ⊊ verage O	_	ct 🔲	Info [] N° 85.070 Yes / 100%	HENEY MAN DELOS HOBOT HO		Yes	-			•	
	Level III			Signature		Date Reviewer	\sim μ	N	Signature		-	Date
Zimmerman,				Signature S	<u>) </u>	10/14/2003 Date Site Revie		1100	Clanation		15-03	D-1-
Examiner Huhe, Troy	Level II-	N		Signature		10/14/2003	γ (Signature			Date
Other	Level			Signature		Date ANII Revi	ew aney CRetes	leo Slay	Signature	16/19/	63	Date



Supplemental Report

Report No.: <u>UT-03-265</u>
Page: 2 of 4

Summary No.: B09.011.111

Examiner: Zimmerman, David K.

Examiner: Huhe, Troy

Other:

Level:

Level:

Level: II-N

Reviewer: Site Review:

Site Review: ANII Review:

Noney CRitchiel S

Date: /0-/5-03

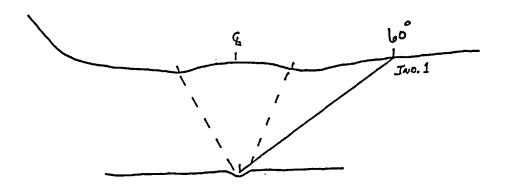
Date:

Date: 10/18/03

Comments: ISI PLOT / RESOLUTION SHEET

INDICATION 1: GOEMTRICAL REFLECTOR DUE TO WELD ROOT CONFIGURATION. 70° SHEAR WAVE PRODUCED LESS THAN 50% DAC SIGNAL DID NOT HOLD UP TO SKEW. THIS CONFERS WITH PAST UT DATA.

Sketch or Photo:



Duke Energy.

Ultrasonic Indication Report

Site/Unit:		-							1	NDE-600		•	Outage No.:						
	Summary No.: B09.01				1.111 Procedure Rev.						15		_ Rep	: <u>UT-03-265</u>					
	Workscope:			· IS		<u> </u>	w	ork Orde	r No.:	98403309			-	Page:	3	of	4		
Search Unit Angle: 60				٥	º ⊕ Piping									•	c				
	Wo Loca	tion: We	eld Cente	erline				O Fei	rritic Ves	sels <u>></u>	2"T			W1 W2					
	Lo Loca	tion:	9.1.1.1	<u> </u>	•			O Oth	her _						<u> </u>	کا ۱۰۰			
МР	Metal F	Path			Wn	nax D	istance f	rom Wo	To S.U.	At Maxii	mum Res	ponse					DAI		
RBF	Remair	ning Back F	Reflection	n ·	W1	D	Distance From Wo At Distance From Wo At			Of Max (Forward)				17 7		1	L		
L	Distanc	e From Da	itum		W2	D				Of	Max (Fo	rward)		Innax	-				
Con	nments:															丰	WI Wma	x W2	
Scan	Indication	%		N	For	ward		kward	L1	L	L2	RBR			Remark	ks			
#	No.	Of DAC	W	lax MP	W1	Of Max MP	W2	Of Max MP	Of Max	Max	Of Max	Amp.							
2	1	70	1.55	1.96		IVIE	772	IVIP	Int.	360°	Int.				•				
	<u> </u>						 								-			 -	
	 -	 			 	 	 		 	 -	 	<u> </u>							
ļ	ļ .				 					<u> </u>	<u> </u>	<u> </u>					····		
	<u> </u>										 	ļ	<u> </u>				-		
	 		 		-				 	1	- 				-				
	 	 		-	-		-	-		├	 -								
	<u> </u>					 	 	-		 									
	-					 	 	 	-	├	 	 							
			<u> </u>	<u> </u>		<u></u>	<u> </u>	<u> </u>		<u> </u>		<u> </u>							
Examine	r Level nan, David				Signatur	е	•	D 10/14/20	ate Rev	lewer	Le	11	M	Signat				Date	
Examine				/_/	Signatur	(e)			Date Site	Review	Dan	/ 	los	Signa	ture	10-1	5-03	Date	
Huhe, Tr					5	<u>لر H</u>		10/14/20	003			1							
Other	Level				Signatur	e .		0	Date ANI			400	50 /+	Signa		/_		Date	
										None	$\eta \cup \mathcal{U}$	we c	taighte	10	/18/	<u>03</u>			

Supplemental Report

Report No.: UT-03-265 Page: of 4

Summary No.: B09.011.111

Examiner: Zimmerman, David K.

Level: 111 Level: II-N

Level:

Reviewer: Site Review: Date:

Examiner: Huhe, Troy

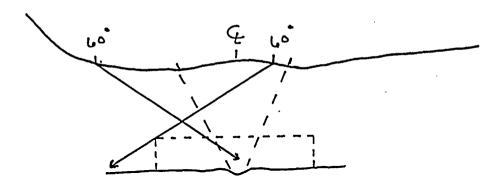
Other:

ANII Review:

Date: /0/18/03

Comments: ISI LIMITATION REPORT-SEE ATTACHED

Sketch or Photo:



DU	KE POWE	R COMPANY	
I	SI LIMITAT	ION REPORT	Revision 1
Component/Weld ID: 1LP-140-8A	Iter	m No: <u>B09.011.111</u>	remarks:
☐ NO SCAN	SURFACE	BEAM DIRECTION	Valve configuration: 100%
☐ LIMITED SCAN	□ 2	☐ 1	coverage obtained from
FROM L N/A to L N/A	INCHE	S FROM W0 1.5 to Beyond	opposite scan.
ANGLE: □ 0 □ 45 ☒ 60	other	FROM 0 DEG to 360 DEG	
☐ NO SCAN	SURFACE	BEAM DIRECTION	
☐ LIMITED SCAN	□ 1 □ 2	☐ 1 ☐ 2 ☐ cw ☐ ccw	
FROM L to L	INCHE	ES FROM W0 to	
ANGLE: 0 45 60	other	FROM DEG to DEG	
☐ NO SCAN	SURFACE	BEAM DIRECTION	
☐ LIMITED SCAN	□ 1 □ 2	☐ 1 ☐ 2 ☐ cw ☐ ccw	
FROM L to L	INCHE	ES FROM W0 to	
ANGLE: □ 0 □ 45 □ 60	other	FROM DEG to DEG	
□ NO SCAN	SURFACE	BEAM DIRECTION	
☐ LIMITED SCAN	□ 1 □ 2	☐ 1 ☐ 2 ☐ cw ☐ ccw	
FROM L to L	INCHE	ES FROM W0 to	Sketch(s) attached
ANGLE: 0 45 60	other	FROM DEG to DEG	⊠ yes □ No
Prepared By: David Zimmerman	Level:	III Date: 10/14/03 · She	eet _1 of _1
Reviewed Rus A A A	\ \ Date	10-15-03 Authorized Inspector, Sla	ushtu 1918/03
) <i>/</i> {		\mathcal{O}	•



Site/Unit: DA			Procedure Procedure Rev		_	lo: ONSIEDE Z
/orkscope:	/s ₁	·		: 98403309	– Pa	do.: <u>U7-03-26</u> ge:
<u>45 deg</u> Scan 1	/10	% Length X	(01)	% volume of length / 100 =	- //57)	% total for Scan 1
Scan 2	100	- % Length X		% volume of length / 100 =		- % total for Scan 2
Scan 3	700	- % Length X		% volume of length / 100 =	····	- % total for Scan 3
Scan 4		- % Length X		% volume of length / 100 =		- % total for Scan 4
Other deg -	60	(to be used for	r supplemental sc	ans)		
		•	• •	ained with the 45 deg scans.		
Scan 1	100	% Length X	100	% volume of length / 100 =	100	% total for Scan
Scan 2	100	% Length X	40.3	% volume of length / 100 =	40.3	% total for Scan
Scan 3	·	% Length X		% volume of length / 100 =		% total for Scan
Scan 4		% Length X		% volume of length / 100 =		% total for Scan
	each scan re		ie by # of scans to Mc Galle	o determine;	2-18-04	
	U	O				REVIEWED

UT Base Meta. Lamination



	Site/l	Jnit: Ocone	ee /	1					Procedu	re:	NDE	<u>-640</u>			Outage No.: _	ONS	1EOC2	1
;	Summary	No.:	C05.02	21.029				Proc	edure Re	ov.:		2			Report No.:	UT	-03-266	<u> </u>
	Worksc	оре:	15	31			_	Work	Order N	o.:	9857	73336			Page: _	1_	of _	2
Code:		Section 2	XI, 1989			Cat./It	em:	C-F-1	/C5.21.2	9	Locat	tion:			N/A			
) Drawing	No.:		1-51A-0	1(4)			D	escription	: Pipe t	o Valve	(1HP-63)							
System l	ID: 51	A					_											
Compon	ent ID: C	5.021.029 /	1-51A-01	I-114AC							Size/Len	gth:	N/A	Th	ickness/Diame	ter:	.375" / :	2.5*
imitatio	ns: No	ne										Start '	Time:	1035	Finish Ti	me: _	1039)
Examin	ation Surfa	ace: Ins	ide 🔲	Out	side 🗹		s	urface Co	ondition:	AS GR	DUND			·				
Lo Loca	ation:	9.1	1.1.1		Wold	cation: _	Ce	nterline	of Weld		Couplant:	1	ULTRAGI	EL 11	Batch No.:		0122	5
Temp.	Tool Mfg.:	F	ISHER		Ser	ial No.: _	!	MCNDE 2	7219	\$	Surface Te	mp.: _	84	_•F	Scann	ing dB	:!	59
Cal. Re	port No.:					CAL-03	-366											
Ind.	% Loss	Amplitude ·		Positio	on One			Position	on Max			Positi	on Two			Remark	s	
No.	Back Wall	Full Screen	L1	W1	W2	MP	LM	W1	W2	MP	12	W1	W2	MP	l ·		•	
NRI		•																
																		
Results	ents: FC	Accept ☑	Rej	ect	Info	<i>A</i>	REVIEW INTEL OTHER NOTE Date ASSET	25% 25%00			.1		- L		·			
Percent	t Of Cover	age Obtaine	d > 90%	: Yoc	1-100%	\$8m02-17	Poy Revi	ewed Pre	vious Da	ita:	Yes							
Examin Mauldi	er Lev n, Larry E	/el /1	D Will	8 0	Signatu	ildu.		10/14/2	ate Rev	riewer	Han	L /	Mos	Sig	gnature	10-1	15-03	Da
Examin Steinba	er Lev auer, Troy	rel II-N			Signatu	γθ	7	10/14/2	ate Site			1		Sig	gnature	•		Da
Other					Signatu	r 0	<u> </u>	D	ate ANI	I Review	Ntney	CRi	titue	South	gnature Lu /0/	18/0	3	Da



Sketch or Photo:

Supplemental Report

	•			Re	eport No.:	UT-0	03-266	6
					Page:	_2	of _	2
Summary No.:	C05.021.029	<u>. </u>						
Examiner:	Mauldin, Larry E. Lany & Mould	Level: II	Reviewer:	May / Mos		Date: ∠	0-15	03
	Steinbauer, Troy	Level: II-N	Site Review:	Y		Date:		
Other:		Level:	ANII Review:	Noney CRitical Sloventer		Date: 🟒	0/18/	<i>7</i> 03
Comments:	39%	.398 .400 .382	3,53,5					

UT Pipe Weld Examination

Sit	te/Unit: _C	conee /	1		Proced	dure: NDE	-600	Outa	ge No.:O	NS1EOC2	<u>1</u>
Summa	ary No.:	C05.021	1.029		Procedure F	Rev.:1	5	Rep	ort No.:	UT-03-267	_
Work	scope:	ISI	,		Work Order	No.: 9857	/3336		Page: 1	of	2
Code:	Sec	tion XI, 1989		Cat./item:	C-F-1/C5.21.2	9 Loca	tion:	<u> </u>	N/A		
Drawing No.:		1-51A-01	(4)	<u>. </u>	Description: Pipe	e to Valve (1HP-63)					
System ID:	51A	~' •								,	<u> </u>
Component ID:	C05.021.	029 /1-51A-01-	114AC			Size/Lengt	h: N/A	Thicknes	ss/Diameter:	.375"/2	2.5"
Limitations:	Yes						Start Time:	1041	Finish Time:	1100)
Examination S	Surface:	Inside [Outside 🗹		Surface Conditio	n: AS GROUND					
Lo Location:		9.1.1.1	Wo L	ocation:	Centerline of Wel	Id Couplant:	ULTRAC	GEL II I	Batch No.: _	0122	5
Temp. Tool Mf	ig.:	FISHER	Se	rial No.:	MCNDE 27219	Surface Te	emp.:84	°F			
Cal. Report No	o.:		CAL-03-36	7, CAL-03-36	68, CAL-03-369_					•	
Angle Used	0	45 45T	60 38	70]		_				
Scanning dB			41 44.8	44	1		• .				
Indication(s):	Yes 🗌	No ☑	11	Sca	u In Coverage: Upstr	ream 🗹 Downstrea	am 🗹 CW 🛭	☑ ccw ☑			
Comments:				•							
		,									
					•						
Results: A	Accept 🗹	Reject 🗀] Info [
Percent Of Cov	verage Ob	tained > 90%:	Yes / 1009	<u>-</u>	Reviewed Previous (Data: No	_ 				
Examiner I Mauldin, Larry	Level	Lun 6	Signatur		Date R	eviewer	Mon	Signatur		0-18-03	Date
	Level II-N		Signatur	θ .	Date Si 10/14/2003	ite Review Y		Signatur			Date
	Level		Signatur	0	Date A	NII Review New CK	tetre Slo	Signatur	0/18/1	 23	Date

Attachment B Page 30 of 60

Report No.: UT-03-267

Page:

::: C05.021.029

Other:

Mandayet: Examiner: Mauldin, Larry E

Examiner: Level:

Site Review:

ANII Review:

Date:

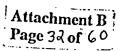
Date: 10/18/03

Comments: ISI Limitation Report - See attached sheet

Sketch or Photo:

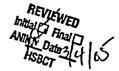


DUI	KE POWER COMP	PANY	ONS1EOC21
IS	I LIMITATION REPO	RT	UT-03-267
Component/Weld ID: 1-51A-01-11	4AC Item No:C05.0	21.029	remarks:
☐ NO SCAN	SURFACE BEAN	DIRECTION	Due to Valve Configuration
☐ LIMITED SCAN	☐ 1	2	100% Coverage obtained from opposite side.
FROM L NA to L NA	INCHES FROM W0	.4" to Beyond	
ANGLE: □ 0 □ 45 ⊠ 60	other FROM 0	DEG to 360 DEG	
☐ NO SCAN	SURFACE BEAN	DIRECTION	
☐ LIMITED SCAN	<pre>1 2 1 5</pre>	2	
FROM L to L	INCHES FROM W0	to	
ANGLE: 0 45 60	other FROM	_ DEG to DEG	
☐ NO SCAN			
☐ LIMITED SCAN	<pre>1 1 2 1 5</pre>	2	
FROM L to L	INCHES FROM W0	to	
ANGLE: 0 0 45 60	other FROM	_ DEG to DEG	
☐ NO SCAN			
☐ LIMITED SCAN	<pre>1 2 1 [</pre>] 2	
FROM L to L	INCHES FROM WO	to	Sketch(s) attached
ANGLE: □ 0 □ 45 □ 60	other FROM	DEG to DEG	⊠ yes □ No
Prepared By: Larry Mauldin	audu Level: 11 Date:	10/14/2003 Shee	et <u>2</u> of <u>2</u>
Prepared By: Larry Mauldin Aug The Reviewed By:	Date: /0·/5-03	Authorized Inspector: Wing C Ritch	e Slaughter 10/18/03
ν.		ν	•





	DNS 11		Procedure	NDE-600	_ Outage No.	: DNSIEOC
nary No.: _	COS. 021.	029	Procedure Rev.		Report No.	·
rkscope:	151		Work Order No.	98403309	_ Page	: of
<u>45 deg</u>						
Scan 1	100	_ % Length X _	61.1	% volume of length / 100 =	6/./	% total for Scan 1
Scan 2	100	_ % Length X _	61.	% volume of length / 100 =	61./	% total for Scan 2
Scan 3		_ % Length X _		% volume of length / 100 = _		% total for Scan 3
Scan 4		0/ 1 11 3/		% volume of length / 100 =		% total for Scan 4
Other dec	- 60	(to be used for	r supplemental sc	% total for 45 deg		
Other dec		divide by # sca (to be used for	supplemental sca	% total for 45 deg		
Other dec		divide by # sca	supplemental sca	% total for 45 deg		_% total for Scan
Other dec		divide by # sca (to be used for	supplemental scathat was not obta	% total for 45 deg ans) ned with the 45 deg scans.	100	
Other dec The data t		divide by # sca (to be used for r is for coverage % Length X % Length X	r supplemental scathat was not obta	% total for 45 deg ans) ned with the 45 deg scans. % volume of length / 100 =	//00	_% total for Scan _% total for Scan _% total for Scan



UT Base Meta. Lamination



	Site/l	Unit: ONS	s /	1					Procedu	re:	NDE	-640			Outage No.:	NS1E	OC21 ·
	Summary	No.:	C05.0	21.034				Proc	edure Re	ev.:		2			Report No.:		
	Worksc	ope:	19	31	<u> </u>			Work	Order N	lo.:	9857	7219			Page: <u>1</u>	of	
Code:	- · · · · · · · · · · · · · · · · · · ·	Section	XI, 1989			Code C	at.:	C-	F-1		Loca	ion:			N/A		
Drawing	No.:		1HP-18	7			D	escription	: Elbov	v to Val	ve (1HP-13	8j					
System	ID: 51	A			_	•											
Compor	ent ID: C	5.021.034 /	1HP-187	'-114							Size/Len	gth:	4"/SS	Th	ickness/Diameter	:	.531
Limitatio	ons: NO	ONE										Start	Time:	0949	Finish Time	:	0951
Examir	ation Surfa	ace: Ins	ide 🔲	Ou	tside 🔽		s	urface Co	ndition:	AS GF	OUND		· · · · · · · · · · · · · · · · · · ·			<u></u>	
Lo Loc	ation:	Ru	ile 1		WoLd	cation: _							ULTRAGE	LII	Batch No.:	0	1225
Temp.	Tool Mfg.:	F	ISHER		Ser	ial No.: _		MCNDE 2	7218		Surface Te	 mp.:	101	_ °F	Scanning	dB: _	58.5
Cal. Re	port No.:					CAL-03	-101										
ind.	%	Amplitude		Positi	on One			Positio	on Max			Positi	on Two		D		
No.	Loss Back Wall	% Full Screen	L1	W1	W2	MP	LM	W1	W2	MP	L2	W1	W2	MP	Hen L	narks	
NRI	-															-	,
			 				· · · · · · · · · · · · · · · · · · ·										<u> </u>
			<u> </u>	_											<u> </u>	•	
						REVIEWI						;	 				
Comm	ents: F/C	03-20			•	ANY Date HSBCT	3/4/0	4	<u> </u>	··	_ <u> </u>						
Results	s:	Accept 🔽	Rej	ect 🔲	Info	· 🗆	INITI	AL SECT	ION XI E	XAM							
Percen	t Of Cover	age Obtaine	ed > 90%	:	\$ 100%	9/9/m02+	Reviبري.	ewed Pre	vious Da	ita:	No		· 				
Examir	er Lev	/el_		<u> </u>	Signatu			D	ate Rev	iewer			0	ρΩ Sig	gnature		Da
	r, Gayle E.		X		Jano						ss Level II		San 1	<u>بره ال</u>	٠		1/25/03
Examir Leeper	er Lev , Winfred	^{rel} C.	1 New	1.	Signatu	re 		D 8/20/20	1	Review	<i>!</i>		11	Sig	gnature		Da
Other	Lev	/el	1	د با کان در اس	Signatu	re		D	ate ANI	Review	W &			Sig	gnature	Q	Lolor
IIT Raso	Metal Lamin	ation									1 6		1111			- 0	100105

Attachment B Page 34 of 60

Supplemental Report

Report No.: UT-03-087

Page:

Date:

Summary No.: C05.021.034

Examiner: Houser, Gayle E.

an Level: III

Reviewer: Gary J Moss

Other:

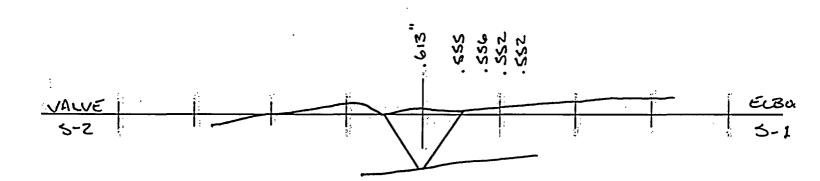
Level:

Site Review: ANII Review:

Date:

Comments:

Sketch or Photo: Z:\UT\IDDEAL\ProfileLine2.jpg



UT Pipe Weld Examination

Summan Works ode: rawing No.: ystem ID: 5 omponent ID: C	cope: _	tion XI,	C05.021 ISI 1989				Procedure	Rev.:	14		F	Report No.: U	T-03-090
ode: rawing No.: ystem ID: 5	Sec												
rawing No.: ystem ID: 5			1989	-			Work Order	No.:	9857721	9		Page:1	of <u>3</u>
ystem ID: 5	· d A				(Code Cat.:	C-F-1		Location:			N/A	
_	-d A	1	HP-187				Description: Elb	ow to Valv	e (1HP-138)				
omponent ID: C	1A								•				
	05.021.0	034/1H	P-187-1	14					Size/Length:	4"/SS	Thic	kness/Diameter:	.531
mitations: Y	/ES								St	art Time:	0953	Finish Time:	1011
												-	
Examination Su	rface:	Inside	⊕ 🗌	Out	tside 🗹		Surface Condition	n: AS GR	OUND				
Lo Location: _		Rule	e 1		Wo Loc	ation:	Centerline of We	ld	Couplant:	ULTRAG	EL 11	Batch No.:	01225
Temp. Tool Mfg	.:	FIS	HER		. Seria	l No.:	MCNDE 27218		Surface Temp.	:101	°F		
Cal. Report No.	:			C/	AL-03-102,	CAL-03-10	3, CAL-03-104						
Angle Used	0	45	45T	60	60L								
Scanning dB			48.0	49.0	- 65.0								
Indication(s):	Yes 🔲	No	$\overline{\mathbf{V}}$			Sca	n Coverage: Upst	eam 🔲	Downstream	g cw <u>v</u>	ccw	\mathbf{V}	
Comments:													
F/C 02-15, 02-1	16. 03 - 18	. 03-21											
.,, ,., ,	,	,											
					•								
Results: Ac	cept. 🗹	Re	eject 🗌		Info 🗌	<u> </u>	NITIAL SECTION X	EXAM				· · ·	
Percent Of Cove	erage Ob	tained >	> 90%:		10 - 75%	<u>536-03</u>	Reviewed Previous	Data:	No	_			
- Laminar L	21.01				Clanatur		Data I B	eviewer		^	Cian	Adura	
Examiner Le Houser, Gayle B	evel III			\bigvee	Signature	wer	8/20/2003 G		s Level II	Yan/	1 1/1//-	ature	8/25/
	evel				Signature			ite Review		- Juny 1		ature	0/2/
Leeper, Winfred			W	in let	NOK	ler_	8/20/2003						
Other Le	evel			0	Signature	~7.	Date A	NII Review		,	Sign	ature	8/28/

UT Pipe Weld Examination



Attachment B
Page 36 of 60

			neport No.;	·	-03-090	
			Page:	2	of 3	_
Summary No.:	C05.021.034		h 11 -			
Examiner:	Houser, Gayle E. / Thousandevel:	III Revie	ewer: Gary J Moss Level II	Date:	8.25.63	3
Examiner:	Leeper, Winfred C. Winfred C. Level:	II Site Rev	view:	Date:		_
Oth san			. 500			_

Comments:

SEE ATTACHED PROFILE SHEET

Limitation Record

Site/Unit:	ons /	1	Procedure:	NDE-600	Outage No.:	ON	S1EO	C21
Summary No.:	C05.02	1.034	Procedure Rev.:	14	Report No.:	υ	T-03-0	90
Workscope:	IS	1	Work Order No.:	98577219	Page:	3	of	3

Description of Limitation:

No SCAN AXIAL FROM VALUE SIDE

Sketch of Limitation:

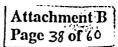
VALUE SZ LOÙ ELBOW-51

Limitations removal requirements:

N/A

Radiation field: N/A

Examiner	Level	111	Sigra	ture	Date	Reviewer		١.	Signature	Date
Houser, Gay	yle E.)	UP/H	user	8/20/2003	Gary J Moss	Level II	Don,	1 Moss	8/05/03
Examiner	Level	11 /	Signa	turej	Date	Site Review		7	Signature	'Date
Leeper, Win	fred C.	uh	what.	Deen	8/20/2003	i 				
Other	Level	<u> </u>	Signa			ANII Review			Signature	Date
JAY	EATT	H III	. \cup		0/2/03	0.9	·	200	od	8/28/03
			()				_			





Scan 2 Scan 3 Scan 4	totals and d	% Length X	75 75	% volume of length / 100 =	75	% total for Scan % total for Scan % total for Scan % total for Scan
Scan 1 Scan 2 Scan 3 Scan 4 Add	totals and d	% Length X % Length X % Length X ivide by # scar	75	% volume of length / 100 = % volume of length / 100 = % volume of length / 100 =	75	_ % total for Scan _ % total for Scan
Scan 2 Scan 3 Scan 4 Add	totals and d	% Length X % Length X % Length X ivide by # scar	75	% volume of length / 100 = % volume of length / 100 = % volume of length / 100 =	75	- _ % total for Scan _ % total for Scan
Scan 3 Scan 4 Add	totals and d	% Length X		% volume of length / 100 = % volume of length / 100 =		- _ % total for Scan
Scan 4 Add	totals and d	% Length Xivide by # scar		% volume of length / 100 =		
Add	totals and d	ivide by # scar				_ % total for Scan
			ns = <u>75</u>	_ % total for 45 deg		
				ained with the 45 deg scans.		Of Antolder Co-
Scan 1	100	_ % Length X .		_ % volume of length / 100 =	100	% total for Sca
Scan 2	100	_ % Length X		_ % volume of length / 100 = _		% total for Sca
Scan 3	•	_ % Length X		_ % volume of length / 100 =	•	% total for Sca
Scan 4		_ % Length X		\sim % volume of length / 100 =		% total for Sca
Percent comp	lete coverad	e				
		_	_			
	•	•	e by # of scans	lo determine;		
62.5 %	()	mplete exam	. 0, 11	7		
Site Field Supe	ervisor:	îms f. M	Gulle	Date:	2-18-04	

UT Base Metal Lamination



	Site/U	Jnit: Ocone	ee /	1					Procedu	re:	ND1	E-640			Outage No.:	ONS	1EOC21	
	Summary	No.:	C05.02	21.050				Proc	edure Re	ev.:ˈ	-	2			Report No.:	UT	-03-238	
	Worksco	ope:	Įs	81				Worl	k Order N	lo.:	985	73350			Page:		of2	<u> </u>
Code:		Section 2	XI, 1989			Cat./lt	em:	C-F-1	/C5.21.5	0	Loca	tion:			N/A			
- Drawing	No.:		1-51A-0	02				escription	: Valve	(1HP-1	- 32) to Pipe	<u> </u>						
System I	D: 51.	A																
Compon	ent ID: C0	5.021.050 /°	1-51A-02	-49BA							Size/Len	gth:	4" SS	TI	nickness/Dian	neter:	0.531	•
_imitatio	ns: Ye	s - Pipe to \	Valve									Start	Time:	1035	Finish ⁻	Time: _	1040	
Examin	ation Surfac	e: Ins	ide 🔲	Ou	tside 🔽			Surface C	ondition:	AS GR	OUND					<u> </u>		
Lo Loca	ation:	Тор	of Pipe								Couplant:		ULTRAG	ELII	Batch No	o.:	01225	
Temp.	Tool Mfg.:	F	ISHER		Se	rial No.:	!	MCNDE 2	7219		Surface Te	mp.: _	74	•F	Scan	ning dB	:4	8
Cal. Re	port No.:			 		CAL-03	-322											
Ind.	% Loss	Amplitude %		Position	enO no		ے'۔	Positio	on Max			Positi	ion Two			Remark		
No.	l i	Full Screen	L1	W1	W2	MP	LM	W1	W2	MP	L2	W1	W2	MP	1	Heiliark	3	
NRI																		
								<u> </u>		 								
							\											
					 													
Comme	ents: FC	/ 03-20		<u> </u>	J	<u> </u>	<u>. </u>	<u> </u>			<u>., , , , , , , , , , , , , , , , , , , </u>			, , , , , , , , , , , , , , , , , , ,	<u> </u>			
Results	•	Accept 🔽	Rei	ect 🗌	Info	- -	Initia	l Section	YI Ever									•
		ge Obtained	-		- 100%	_		ewed Pre			No		· · · · · · · · · · · · · · · · · · ·					
Examine Eaton,		el III	(Alle	Signatur			10/5/20	ate Rev	riewer	Yan	. 1	Mo	Sig C	gnature	10	7-/0-0.	Da 3
Examin		el			Signatur	·e		C	ate Site	Review		7		Sig	gnature		<u></u>	Da
Other	Lev	el		-	Signatur	е			ate ANI	I Review	<u> </u>			. Bio	nature	10/13/0		Da

Duke Duke	
Energ	V.

Attachment B Page 40 of 60

Report No.:

UT-03-238

Page: 2 of

Summary No.: C05.021.050

Examiner: Eaton, Jay A.

Examiner: Other: Level:

Level:

Level:

Reviewer:

ANII Review:

Site Review:

Date: 10-8-03

Date:

Date: 19/13/03

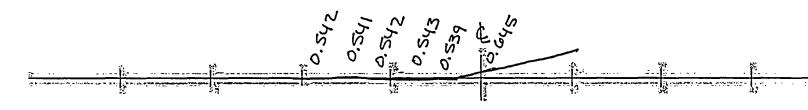
Comments:

Sketch or Photo:

\\ngofs1\IDDeal7\Iddeal_Server\Graphics\Common\ProfileLine2.jpg

PIPE

VALYE



UT Pipe Weld Examination

	3-240 of 4
Code: Section XI, 1989 Cat./Item: C-F-1/C5.21.50 Location: N/A	
Drawing No.: 1-51A-02 Description: Valve (1HP-132) to Pipe	
System ID: 51A	
Component ID: C05.021.050 /1-51A-02-49BA Size/Length: 4" SS Thickness/Diameter:	0.531"
Limitations: Yes - See attached Limitation Report Start Time: 1040 Finish Time:	1100
Examination Surface: Inside Outside Surface Condition: AS GROUND	
Lo Location: Top of Pipe Wo Location: Centerline of Weld Couplant: ULTRAGEL II Batch No.:	01225
Temp. Tool Mfg.: FISHER Serial No.: MCNDE 27219 Surface Temp.: 74 °F	
Cal. Report No.: CAL-03-323, CAL-03-325, CAL-03-342	
Angle Used 0 45 45T 60 60L -	
Scanning dB 55 50 60	
Indication(s): Yes ☑ No ☐ Scan Coverage: Upstream ☐ Downstream ☑ CW ☑ CCW ☑	
Comments:	
REVIEWED AND Data Hoselon VI Even	
Results: Accept ☑ Reject ☐ Info ☐ 3.5% Initial Section XI Exam	
Percent Of Coverage Obtained > 90%: No 190% 75 00 1 Reviewed Previous Data: No	
Examiner Level III Signature Date Reviewer Hours Signature 10-10-03	Date
Examiner Level Date Site Review V Signature	Date
Other Level Signature Date ANII Review Woney Children 10/13/03	Date

Ultrasonic Indication Report

P W. 6511	Su	Site/Unit:	-	nee / C05.02	1 1.050		P	Proce rocedure	edure: _ Rev.:		NDE-600 15		-	ge No.: _ ort No.:	ONS1E UT-03		
	,	Workscope	:	IS	ı		W	ork Orde	er No.: _	9	8573350)	_	Page:	2 of	4	
Sea	arch Unit A Wo Loca Lo Loca	ation:	60°L C/L of W Top of F	/eld_	2			. – .	ping Welerritic Ves		2 " T				Wo CL	Wmax W1 W2	
MP RBF L		Path ning Back F ce From Da		n	Wn W1 W2	D	istance F	From Wo From Wo From Wo		Of	mum Res Max (Fo Max (Fo	rward)		Lmax I2	1 444	DATI Le	-
Scan #	Indication No.	% Of DAC		W Max MP	Fo W1	rward Of Max MP		kward Of Max MP	L1 Of Max	L Max	L2 Of Max	RBR Amp.		F	Remarks		
60°L	1	80	0.8	.97	N/A	N/A	N/A	N/A	360*	0*	Int.	N/A					
									;								
Examine Eaton, Ja Examine	ay A.	···	(Signatu	>		10/5/2	Date Rev 2003 Date Site		Y.	ruf	Mons	Signat		16.8-03	Date Date
Other	Leve	1		· · · · · · · · · · · · · · · · · · ·	Signatu	rθ .		[Date ANI	il Review	Won	eyCh	dele Slow	Signat		3/03	Date

Duke	
CEnergy.	

Report No.: UT-03-240

Page:

Summary No.: C05.021.050

Examiner: Eaton, Jay A.

Examiner:

Other:

Level: III

Level:

Reviewer:

Site Review:

ANII Review:

Date: 10-8-03

Date:

Date: /0//3/03

GEOMETRIC REFLECTOR FROM Comments: IDD. #1 - 60°L WAS VERIFIED FROM PLOTTING COUNTEL BORE CONFIGURATION.

OF THE RT FILM.

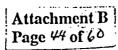
Sketch or Photo:

\\ngofs1\IDDeal7\Iddeal_Server\Graphics\Common\ProfileLine2.jpg

PIPE

VALVE

IND.#1





•	ONSII	Procedure Res		Outage No.: Report No.:	DNSIECC21
ummary No.: Workscope:	Cos. 021.			Page:	
<u>45 deg</u>					
Scan 1	100	% Length X	% volume of length / 100 = _	100	% total for Scan 1
Scan 2	100	% Length X	% volume of length / 100 =	100	% total for Scan 2
Scan 3		% Length X	% volume of length / 100 = _		% total for Scan 3
Scan 4		% Length X	% volume of length / 100 =		% total for Scan 4
Other de The data Scan 1	to be listed below	(to be used for supplemental so is for coverage that was not obt			% total for Scan 1
			-		% total for Scan 2
Scan 2	•		% volume of length / 100 =		•
Scan 3			_ % volume of length / 100 =	-	
Scan 4		% Length X	_ % volume of length / 100 =		% total for Scan 4
Add total	s for each scan re "Total for co	 quired and divide by # of scans t {	o determine;	2-18-0 1	
		O t	·		3 m.
				- A	Prince.

UT Base Metal Lamination



	Sit	e/Unit: Ocone	ee /	1					Procedu	re:	NDE	-640			Outage No.: O	NS1EOC	21
	Summa	ry No.:	C05.02	21.056				Proc	edure Re	v.:		2			Report No.:	JT-03-23	9
	Work	scope:	19	S1				Worl	order N	o.:	9857	73350			Page: 1	_ of _	2
Code:		Section 2	XI, 1989			Cat./lt	em:	C-F-1	/C5.21.5	6	Loca	tion:			N/A		
 Drawing	No.:		1-51A-	02				escription	: Flang	e to Pipe	<u> </u>						
System l	D: .	51A			_												
Compon	ent ID:	C05.021.056 /	1-51A-02	2-23BB							Size/Len	gth:	4" SS	Ti	hickness/Diameter:	0.53	1"
Limitation	ns:	Yes - Pipe to f	lange									Start	Time:	1005	Finish Time:	101	0
Examin	ation Sur	face: Ins	ide 🔲	Ou	tside 🔽			Surface C	ondition:	AS GRO	DUND						
Lo Loca	ation:	North Si	de of Pi	pe	. Wo Lo	ocation: _	Ce	nterline o	of Weld		Couplant:		ULTRAGI	ELII	Batch No.:	0122	25
Temp.	Tool Mfg.	.:F	ISHER		. Se	rial No.: _	1	MCNDE 2	7219	s	Surface Te	mp.:	74	_ °F	Scanning	dB:	48
Cal. Re	port No.:					CAL-03	3-322										
ind.	% Loss	Amplitude %		Positi	on One			Positio	on Max			Positi	on Two		Rem	arks	
No.	Back Wa		L1	W1	W2	MP	LM	W1	W2	MP	12	W1	W2	MP	L		
NRI										!							
								D.									<u> </u>
Comme	: :	C / 03-20 Accept ☑ erage Obtained	Rej	ject □	Info 2 /0-/0-03	\$ \	3-5-09 In Initia	AVII JUDI I Section	TEWED Finally Ate 3/4 XI Exam	104							
			> 90%;	1 -110			7 Nevi				No					···	
Examin Eaton,		evel		#	Signatur	e		10/5/20	ate Rev	iewer	Jan,	1 1)	رما	Sig	nature /o	10 - 0 3	Dat
Examin	er L	evel	V	1	Signatur	'Ө		D	ate Site	Review	γ			Sig	nature		Dat
Other	L	.evel			Signatur	'e		D	ate ANI	I Review	Viney	CRt	Lu Si	rught	gnature 19/13	63	Dat



Report No.: UT-03-239

Page: 2 of 2

Summary No.: C05.021.056

Examiner: Eaton, Jay A.

Examiner:

Level: III

Level:

Level:

Reviewer:

Site Review:

ANII Review:

Date: 10-8-03

Date:

Date: 10/13/03

Comments:

Sketch or Photo:

\\ngofs1\IDDeal7\Iddeal_Server\Graphics\Common\ProfileLine2.jpg

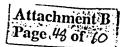
PIPE FLANKE

UT Pipe Weld Examination

S	ite/Unit: _	Oconee	<u>/</u> _	1		Procedure:	NDE-600		Outage I	40:: ON	S1EOC21	-
Summ	ary No.: _	, с	05.021.0)56		Procedure Rev.:	15		Report I	۷o.: <u>"</u>	T-03-241	-
Wor	kscope: _		ISI			Work Order No.:	98573350	<u> </u>	Pa	age: <u>1</u>	of <u>2</u>	<u>-</u>
Code:	Sec	ction Xi, 1	1989		Cat./Item:	C-F-1/C5.21.56	Location:		N/A			
Drawing No.:		1-5	51A-02			Description: Flange to	Pipe					
System ID:	51A				•		· · · · · · · · · · · · · · · · · · ·					
Component ID:	C05.021	.056 /1-51	IA-02-23	BB			Size/Length:	4" SS	Thickness/E)iameter: _	0.531"	
Limitations:	Yes - Se	e attache	ed Limite	ation Report			Sta	rt Time:	1012 Fin	ish Time: _	1028	
Examination S	Surface:	Inside		Outside 🗸		Surface Condition: A	S GROUND					
Lo Location:	No	orth Side	of Pipe	Wo L	ocation:	Centerline of Weld	Couplant:	ULTRAGE	LII Bato	ch No.:	01225	
Temp. Tool M	ifg.:	FISI	HER	Se	rial No.:	MCNDE 27219	Surface Temp.:	74	_°F			
Cal. Report N	o.:			CAL-03-32	23, CAL-03-32	5, CAL-03-342						
Angle Used	0	45	45T	60 60L]						
Scanning dB			55	50 60								
Indication(s):	Yes [] No [√		Sca	n Coverage: Upstream	☐ Downstream 🗹	cw ☑	ccw 🗹			
Comments:				ANII.	EVIEWED							
Results:	Accept 🔽] Rej	ect 🔲	Info [الے یہ	nitial Section XI Exam						
Percent Of Co	verage Ol	btained >	90%:	_No-75%	-10.036213-	Reviewed Previous Data:	No	-				
Examiner Eaton, Jay A.	Level III			signatu		Date Review 10/5/2003		1 M	Signature	10.	-/0-03	Dat
Examiner	Level		·	Signatu	'e	Date Site Re		V	Signature			Dat
Other	Level			Signatu	· · · · · · · · · · · · · · · · · · ·	Date ANII R	oview Noney C. R	telie St	Signature oug lu	10/13/	63	Dat



Limitation Record

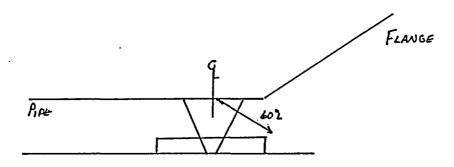


Site/Unit: Oconee / NDE-600 Outage No.: Procedure: ONS1EOC21 Summary No.: C05.021.056 Procedure Rev.: 15 Report No.: UT-03-241 ISI Workscope: Work Order No.: 98573350 Page: 2 of

Description of Limitation:

Due to Flange configuration. Weld C/L + 0.5" and Beyond - 360°

Sketch of Limitation:

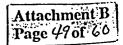


Limitations removal requirements:

N/A

Radiation field: N/A

Examiner	Level III	O Signature O	Date	Reviewer	14 4 4	Signature	Date
Eaton, Jay	A. - }8m 10-	12-03 ams Melalle	10/5/2003		Man / 11	los	10-12-03
Examiner	Level	() Signature	Date	Site Review	7/	Signature	Date
Other	Level	Signature	Date	ANII Review	- O-1-A- (/ Signature	Date
				Noney	-C. Bilitio	Houghters.	16/13/03





Site/Unit:	0N511		Procedure	: NDE-600	Outage No.	: ONSIEUC 2
nmary No.:	COS. 021	.05%	Procedure Rev	:	Report No.	: 41-03-2
orkscope: _	/51		Work Order No.	: 98573350	Page	:/ of _/
<u>45 deg</u>						
Scan 1	100	_ % Length X _	100	% volume of length / 100 = _	100	% total for Scan 1
Scan 2	100	_ % Length X _	.100	% volume of length / 100 = _	100	% total for Scan 2
Scan 3		_ % Length X _		% volume of length / 100 = _		% total for Scan 3
Scan 4		_ % Length X _		% volume of length / 100 =		% total for Scan 4
	Add totals and	divide by # scar	ns = 100	% total for 45 deg		
					•	
r						
	60					
Other deg	-		supplemental sc	ans) ined with the 45 deg scans.		
THE Gala IC	De listed below	is for coverage	iliai was noi obia	inled with the 45 deg scans.		
Scan 1	100	% Length X	100	% volume of length / 100 =	100	_% total for Scan 1
Scan 2	100	% Length X	<i>O</i> ·	% volume of length / 100 =		_% total for Scan 2
Scan 3	·	% Length X		% volume of length / 100 =		% total for Scan 3
Scan 4		% Length X		% volume of length / 100 =		% total for Scan 4
Parcent co	omplete covera	~~				
<u>r crocint oc</u>	mpiete covera	40				
Add totals t	lor each scan re	quired and divide カン・ネーロイ	e by # of scans to	determine;		
	% Total for co	mplete exam	011	7		
Site Field S	Supervisor:	amos . //	6 (helle	Date:	2-18-04	
	(I	0 '	1	, .		
	V				Dr.	

UT Base Meta. ∟amination



	Site/U	nit: ONS	<i>'</i>	1					Procedu	re:	NDE	-640			Outage No.: _	ONS	1EOC21	
Sum	nmary N	lo.:	C05.02	21.073				Proc	edure Re	v.:		2			Report No.:	UT-	03-088	
W	/orksco	pe:	15	si				Work	Order N	lo.:	985	77219			Page: _	1	of2	<u>!</u>
ode:		Section 2	XI, 1989			Code C	at.:	C-	F-1		Loca	tion:			N/A			
rawing No.	:		1HP-18	7			D	escription	: Tee to	Elbow		_						
ystem ID:	51/	4				•									-			
omponent	ID: C0!	5.021.073 <i>/</i>	1HP-187	'-116				<u> </u>			Size/Len	gth:	4" / SS	Th	ickness/Diamet	er:	.531	
imitations:	NO	NE										Start	Time:	0947	Finish Tin	ne:	0949	
Examination	n Surfac	ce: Insi	ide 🔲	Out	side 🗹	***************************************	s	urface Co	ondition:	AS GRO	DUND							
.o Location	:	Ru	ile 1		Wo Lo	cation: _	Ce	nterline o	of Weld		Couplant:		ULTRAGE	L II	Batch No.:		01225	
emp. Tool	Mfg.:	F	ISHER		Ser	ial No.: _		MCNDE 2	7218	8	Surface Te	mp.: _	101_	_ °F	Scanni	ng dB:	58	<u>.5</u>
al. Report	No.:	<u> </u>		_		CAL-03	-101											
Ind.	% .oss	Amplitude %		Positio	on One			Positio	on Max			Posit	ion Two		F	lemarks	1	
No. Bac	k Wall	Full Screen	L1	W1	W2	MP	LM	W1	W2	MP	12	W1	W2	MP				
NRI																		
								 										
Comments	: F/C	03-20		<u> </u>	<u>. </u>	!		.I	1	<u></u>		-		i				-
3		=	5.		6	_	1411										·	
		Accept 🔽		ect 🗀	Info	' LJ		AL SECT										
ercent Of	Covera	ge Obtaine	d > 90%	: YES	5 100%	=	Hevi	ewed Pre	vious Da	ita:	No							
xaminer louser, Ga		el III	1	FA	Signatur				ate Rev		s Level II		Jan /	Mes Sig	nature	8.	25-03	Da
xaminer eeper, Wi	Leve	el II	111.	.75	Signatur	θ			ate Site				Y		gnature	<u> </u>		Da
Other	Leve		ven	(Am) Co	Signatur	72-			ate ANI				=	Sig	gnature		1 11	Da
										<u> </u>	7-5	<u> </u>	700			<u></u>	128/	78
Base Meta	al Lamina	ition																

Attachment B Page 5/ of 60

Report No.:

UT-03-088

Page:

Summary No.: C05.021.073

Examiner: Houser, Gayle E.

Examiner: Leeper, Winfred C. Other:

Level:

Level:

Site Review:

ANII Review:

Reviewer: Gary J Moss Leve

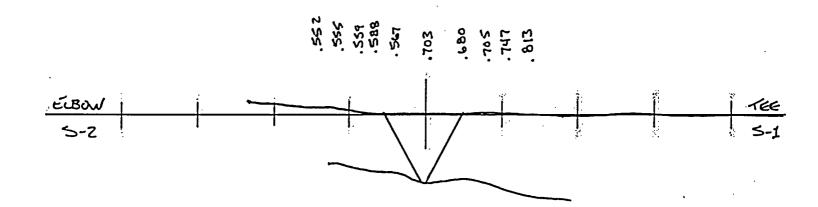
Date: 8-25-03

Date:

Date: 8/28/03

Comments:

Sketch or Photo: Z:\UT\IDDEAL\ProfileLine2.jpg



UT Pipe Weld Examination

UT Pipe Weld Examination

S	ite/Unit:	ONS	1	1			Pro	cedure:	NDE-	-600			Outa	ge No.:	ON	S1EO	C21
Summ	ary No.:		C05.021	.073			Procedu	re Rev.:	14	4			Rep	ort No.:	U	T-03-0	89
Wor	kscope:		ISI				Work Ord	der No.:	9857	7219				Page:	1	of	3
Code:	Se	ction XI,	1989			Code Cat.:	C-F-1	_	Locati	ion:			1	√A			
Drawing No.:		1	HP-187				Description: T	ee to Elbov	<u>v</u>			•					
System ID:	51A																
Component ID:	C05.021	.073 /1H	P-187-1	16					Size/Length	h:	4"/SS	τ	hicknes	ss/Diam	eter:	05	31
Limitations:	YES									Start	Time:	0952		Finish T	ime:	10	007
Examination S	Surface:	Insid	e 🗌	Ou	tside 🗹		Surface Cond	ition: AS G	ROUND								
Lo Location:	_	Rule	e 1		Wo Loca	ation:	Centerline of V	Veld	Couplant:		ULTRAG	EL II	E	Batch No	».:	01	225
Temp. Tool M	lfg.:	FIS	SHER_		. Seria	I No.:	MCNDE 2721	18	Surface Te	mp.: _	101	°F					
Cal. Report N	lo.:			C	AL-03-102,	CAL-03-10	3, CAL-03-104			_			•				
Angle Used	0	45	45T	60	60L												
Scanning dB		<u> </u>	48.0	49.0	65.0												
Indication(s):	Yes [No	$\mathbf{\nabla}$			Sca	n Coverage: Up	stream 🗹	Downstrea	ım 🗹	cw⊵] C	cw 🗹				
Comments: F/C 02-15, 02	2-16, 03-1	8, 03-21			initial Anje	VIEWED Final (*) Date 3/4/ SBCT	, by										
Results:	Accept 🔽	g R	eject 🗀	1	Info 🔲	() 50 IN	IITIAL SECTION	XI EXAM									
Percent Of Co	overage O	btained :	> 90%:	<u>+</u>	No 75% ES 100%	12-18-04 12-18-04	Reviewed Previou	ıs Data:	No								
Examiner	Level III				Signature X Buse			Reviewer		٠	' 1	Δ/ S	ignatur	8			Da
Houser, Gayle			<u> </u>			<u>r</u>			ss Level II		an/		<u>مه</u>			<u> </u>	25.03
Examiner Leeper, Winfr	Level red C.		شركدا	40	Signature		Date 8/20/2003	Site Revie	w		1	S	ignatur	0			Da
Other	Level				Signature	•	Date	ANII Revie	w _v		7	$\sum s$	ignatur	8			De Testas



Attachment B Page 53 of 60

· ^					Report No.:	UT	-03-0	89
` ; .'					Page:	2	of	3
Summary No.:				Gary J Moss Lev	1 Moss			
Examiner:	Houser, Gayle E. House Level:	_111	Reviewer:	Gary J Moss Lev	el II	Date:	8.2	5-03
Examiner:	Leeper, Winfred C. Wiring Clevel:	11	Site Review:			Date:		
Other:	Level:		ANII Review:	P07. 5	-	Date:	8/2	श्रीव्ड

Comments:

SEE ATTACHED PROFILE SHEET



Limitation Record

Attachment B Page 54 of 60

Site/Unit:	ONS / 1	Procedure:	NDE-600	Outage No.:	ONS	\$1EO	C21
Summary No.:	C05.021.073	Procedure Rev.:	14	Report No.:	UT	-03-0	89
Workscope:	ISI	Work Order No.:	98577219	Page:	3	of	3

Description of Limitation:

No scan from surface 1 scan 1 due to the throat of the tee. Limited area is 0 + 12.63" to 0 + 1.5". This area was scanned with a 60 L - Wave from the surface 2 side to gain 100% coverage. See sketch below:

Sketch of Limitation:

ELBOW-51 & WOL

Limitations removal requirements:

N/A

Radiation field: N/A

Examiner Level III	// Signature	Date R	eviewer	1	Signature	Date
Houser, Gayle E.	DE Houser	_ 8/20/2003 G	ary J Moss	Level II	and Moss	8-25-03
Examiner Level	Signature	Date Si	ite Review		// Signature	Date
Leeper, Winfred C.	Winds Rees	8/20/2003			• /	
Other Level	Signature	Date At	NII Review	, /	Signature	Date
JAY EATON	UH	0/21/03	رجي	()	Tomas _	8/28/03
				_		

Attachment B Page 55 of 60



	<u>051.</u>		Procedur	e: <u>NDE-600</u>	Outage N	o: ONS/EOC
	cos. 021		Procedure Re	• 	Report N	
rkscope:	151	<u>. </u>	Work Order No	o:: <u>986772/9</u>	. Pag	ge:/ of _/
<u>45 deq</u>	_					
Scan 1	45	_ % Length X	100	% volume of length / 100 =	100	_ % total for Scan
Scan 2 _	45	_ % Length X	. 100	% volume of length / 100 =	100	_ % total for Scan 2
Scan 3		_ % Length X		% volume of length / 100 =	-, -	_ % total for Scan 3
Scan 4		_ % Length X		% volume of length / 100 =		_ % total for Scan 4
Other deg -		_ (to be used for s				
		-	nat was not obt	cans) ained with the 45 deg scans. % volume of length / 100 =	100	% total for Scan
The data to b	e listed belov	w is for coverage the second of the second o	nat was not obt	ained with the 45 deg scans. _ % volume of length / 100 = _		_
The data to b	e listed below	w is for coverage the second of the second o	nat was not obt	ained with the 45 deg scans. _ % volume of length / 100 = _		% total for Scan % total for Scan % total for Scan
Scan 1	e listed below	w is for coverage the second s	nat was not obt	ained with the 45 deg scans. % volume of length / 100 = % volume of length / 100 =		— % total for Scan

UT Base Meta. ∟amination



	Site/	Unit: ONS	1	1	- ·				Procedu	re:	NDI	E-640			Outage No.: ON	S1EOC21
	Summary	No.:	C05.02	21.111				Proc	edure Re	ev.:		2			Report No.: U	T-03-085
	Worksc	ope:	IS	<u> </u>			•	Worl	order N	lo.:	985	77854			Page: 1	of <u>1</u>
Code:		Section 2	XI, 1989			Code C	at.:	C-	F-1		Loca	tion:	,		N/A	
Drawing	No.:		1HP-19	4			D	escription	: Pipe t	o Valve	(1HP-27)				·	•
System	ID: 51	Α				•						į				
ompor	nent ID: C)5.021.111 <i> </i>	1HP-194	-4							Size/Len	gth:	4.0"/SS	TI	hickness/Diameter:	.674
imitatio	ns: No	ONE										Start	Time:	0912	Finish Time:	0916
Examin	ation Surfa	ce: Ins	ide 🔲	Ou	tside 🔽	-	5	Surface C	ondition:	FLUSH						
Lo Loca	ation:	R	Γ#0		Wo L	ocation: _	Ce	nterline o	of Weld_	(Couplant:		ULTRAGE	L II	Batch No.:	01225
Temp.	Tool Mfg.:	F	ISHER		. Se	rial No.: _	1	MCNDE 2	7221	9	Surface Te	mp.: _	90	_°F	Scanning d	3: <u>50</u>
Cal. Re	port No.:					CAL-03	-097									•
Ind.	% Loss	Amplitude %		Positi	on One			Positio	on Max			Posit	tion Two		Rema	ks
No.		Full Screen	L1	W1	W2	MP	LM	W1	W2	MP	L2	W1	W2	MP		
NRI																
					 		 			1.				 -		
							<u> </u>			<u> </u>			- 			
				<u> </u>	ļ	ļ		ļ	<u> </u>	 	ļ					
												;				
Commo Results	s:	03-20 Accept ☑ age Obtained	-	ect 🗌		· 🗆		AL SECTI			No		·			
Examin		/el 11			Signatur	<u> </u>			ate Rev					0/bi	gnature	Da
	r, Marion l	- "	2,			Jeme	. ·				s Level II	. X	ary/	111	gnatur o	8·25-03
Examin				1000000	Signatur				ate Site				- V/		gnature	Da
Other	Lev	/el			Signatu	' e		D		I Review		5		Sig	gnature	8/28/05
IT Base	Metal Lamin	ention											1->			=000

Attachment B. Page 57 of 60

Report No.: UT-03-086

Page: Z of 3

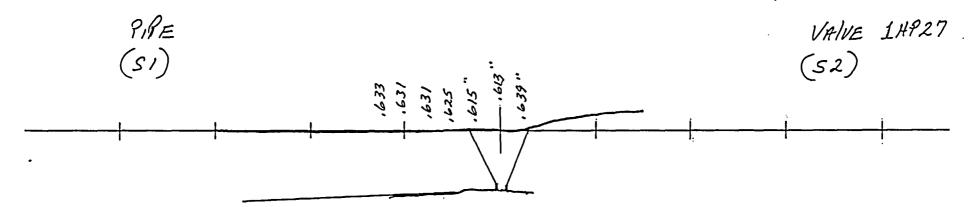
 Summary No.:
 C05, 021.1/1

 Examiner:
 Morion Wesser
 Level:
 A Reviewer:
 Site Review:
 Date:
 9.25.03

 Examiner:
 Level:
 Site Review:
 Date:
 Date:
 Str./03

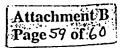
Comments:

Sketch or Photo:



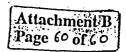
UT Pipe Weld Examination

S	Site/Unit: _	ONS /			Procedure: _	NDE-600		Outage No.: ON	IS1EOC21
Summ	ary No.:	C05.021	.111		Procedure Rev.:	14		Report No.:U	T-03-086
Wor	kscope:	ISI			Work Order No.:	98577854		Page: 1	of <u>3</u>
Code:	Sec	tion XI, 1989	Co	ode Cat.:	C-F-1	Location:		N/A	
Drawing No.:		1HP-194			Description: Pipe to Valv	/e (1HP-27)			
System ID:	51A					:			
Component ID:	C05.021.	111 /1HP-194-4	•			Size/Length:	4.0" / SS	Thickness/Diameter:	.674
Limitations:	YES - 1 S	SIDED (VALVE)				Sta	art Time: 0924	Finish Time:	0932
Examination	Surface:	Inside [Outside 🗹		Surface Condition: FLU	SH			
Lo Location:		RT #0	Wo Locat	ion:	Centerline of Weld	Couplant:	ULTRAGEL II	Batch No.:	01225
Temp. Tool M	lig.:	FISHER	Serial !	No.:	MCNDE 27221	Surface Temp.:	90°F		
Cal. Report N	lo.:		CAL-03-098, C	AL-03-09	9, CAL-03-100				
Angle Used	0	45 45T	60 38	60L					
Scanning dB			56 51	57					
Indication(s):	Yes 🖂	No √	·	Sca	n Coverage: Upstream ☐	Downstream 🔽	cw 🗹 c	ccw 🗹	
Comments: F/C 02-15, 02			REVIEWED Initial Final E ANTI/A Date 3/0 HSBCT	Yoy			_		
Results:	Accept 🗹	Reject [65./5% Info 02	۱۱ ریدی:	NITIAL SECTION XI EXAM				
			05./8/9 } \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Reviewed Previous Data:	No	<u> </u>		
Examiner	Level II		Signature		Date Reviewer	0	4 00	Signature	, . [
Weaver, Mari		Man		·2	8/20/2003 Gary J Mo				8/25/03
Examiner	Level	^ 1	Signature		Date Site Revie	ew	, , , , ; ;	Signature	, , , _ c
Other Eaton, Jay A.	Level III	CA	Signature		Date ANII Revi	ew S	- Samo	Signature	8/28/03
LIT Pine Weld E			·						



Limitation Record

Site/Unit:	ONS /	1	Proce	edure: ND	E-600	Outage No.:	ON	S1E0C21
Summary No.:	C05.021	.111	Procedure	Rev.:	14	Report No.:		T-03-086
Workscope:	ISI		Work Orde	r No.: 98!	577854	Page:	3A	of 3
Description of Limit	itation:			,		(XELTO	103 OCO12
The 38 shear sca		ne 60 shear scan	2 on surface 2	were limited due	to valve conf	iguration. A 60 I	Wav	
scanned from su	rface 1. See the	sketch and cov	erage calculatio	ns below:				
					1			
							62	- YALYE
Sketch of Limitatio	n:		51- PIP	- 6.	/ //	√6°L	52	- 74698
					\/	-		
								
					ŀ			
								•
					•			
Limitations remova	I requirements:	A/a		•				
Radiation field:	NA							
Examiner Le Weaver, Marion	vel II T. Mano	Signature	Date , 8/20/2003	Reviewer Gary J Moss Le	evel II	Signature		Date \$. 25-03
	vel	Signature		Site Review	ver Var	Signature		Date
Othos	···ol	Sizzat in h	Dete	ANII Posteri		Cianatura		Data
Other Le	vel	Signature	Lalla	ANII Review	7	Signature		Date





rkscope:	<u>151</u>		Procedure Re Work Order N	ev.: <u>/4</u>	Outage No Report No Page	: 47-03-0
<u>45 deg</u>	·					
Scan 1		% Length X		% volume of length / 100 =		% total for Scan
Scan 2		% Length X	•	% volume of length / 100 =		% total for Scan
Scan 3	100	% Length X	80.36	% volume of length / 100 =	80.36	% total for Scan 3
Scan 4	100	 % Length X	80.36	% volume of length / 100 =	80.36	% total for Scan 4
Other deg -		(to be used for				
The data to I	be listed below	w is for coverage	that was not ob	tained with the 45 deg scans.	· !aī	e/ total for Sona
The data to I	be listed below	w is for coverage	that was not ob	tained with the 45 deg scans. % volume of length / 100 =	100	- .
Scan 1Scan 2	be listed below	w is for coverage % Length X % Length X	that was not ob	% volume of length / 100 =% volume of length / 100 =%	100	— % total for Scan
The data to I	be listed below	w is for coverage	that was not ob	% volume of length / 100 =% volume of length / 100 =% volume of length / 100 =%		_ % total for Scan _ % total for Scan _ % total for Scan
Scan 1Scan 2	be listed below	w is for coverage % Length X % Length X	that was not ob	% volume of length / 100 =% volume of length / 100 =%		% total for Scan
Scan 1 Scan 2 Scan 3 Scan 4	be listed below	% Length X % Length X % Length X % Length X % Length X	that was not ob	% volume of length / 100 =% volume of length / 100 =% volume of length / 100 =%		— % total for Scan
Scan 1 Scan 2 Scan 3 Scan 4 Percent cor	be listed below	% Length X % Length X % Length X % Length X % Length X	that was not ob	% volume of length / 100 =%		% total for Scar % total for Scar

