

Mano K. Nazar Site Vice President Prairie Island Nuclear Generating Plant Nuclear Management Company, LLC 1717 Wakonade Dr. East • Welch MN 55089

May 31, 2002

10 CFR Part 50 Section 50.55a

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

## PRAIRIE ISLAND NUCLEAR GENERATING PLANT

Docket No. 50-306 License No. DPR-60

Request for Relief No. 12 for the Unit 2 3rd 10-year Interval Inservice Inspection Program

On November 15, 1994 we submitted for review our third 10-year Inservice Inspection Examination Plan for Unit 2 and, on April 19, 1995, relief request revisions associated with that plan. The NRC issued its evaluation of the 3rd 10-year Interval Program Plan on February 22, 1996.

The purpose of this letter is to submit a relief request for "limited examinations" associated with that plan. Attached is Unit 2 Relief Request No. 12, Revision 0 which addresses those limited examinations. We are requesting relief pursuant to 10 CFR Part 50, Section 50.55a(g)(5)(iii) due to the impracticality of obtaining "100%" examination coverage for the affected items.

In this letter we have made no new Nuclear Regulatory Commission commitments. Please contact Jack Leveille (651-388-1121, Ext. 4142) if you have any questions related to this letter.

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Mano K. Nazar Site Vice President Prairie Island Nuclear Generating Plant

c: (next page)

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NUCLEAR MANAGEMENT COMPANY, LLC

USNRC May 31, 2002 Page 2

c: Regional Administrator - Region III, NRC Senior Resident Inspector, NRC NRR Project Manager, NRC Chief Boiler Inspector, State of MN P. Fisher, Hartford Insurance

Enclosure: ISI Relief Request No. 12 (Rev. 0), Prairie Island Unit 2, 3<sup>rd</sup> Interval, with attached examination reports

## ISI Relief Request No. 12 (Rev. 0)

Limited Examination

SYSTEM: Various Category: Various Class: 1 and 2 Item: Various

Impractical Examination Requirements:

ASME Section XI (1989 no addenda) Code requires full examination of inservice inspection (ISI) components per Table IWB-2500-1, and IWC-2500-1. Reg. Guide 1.147 endorses Code Case N-460, "Alternative Examination Coverage for Class 1 and Class 2 Welds." This code case allows greater than 90% coverage of a weld to meet the "essentially 100%" requirement.

NRC Information Notice 98-42 "Implementation of 10 CFR 50.55a(g) Inservice Inspection requirements" Dec. 1, 1998, states "The NRC has adopted and further refined the definition of "essentially 100 percent"" to mean greater than 90 percent " in 10 CFR 50.55a(g)(6)(ii)(A)(2) for required examination coverage of reactor pressure vessel welds. This standard has been applied to all examination of welds or other areas required by ASME Section XI.

The Prairie Island construction permit was issued in 1967. This facility was designed and constructed with limited accessibility due to component configurations and/or physical barriers for which 100% coverage is not achievable on some ISI components examined for the Third Ten Year Interval.

## Basis for Relief:

The following 10 CFR 50.55a paragraphs apply to the inservice inspection of components in accordance with the ASME Section XI code:

50.55a(g)(1): For a boiling or pressurized water-cooled nuclear power facility whose construction permit was issued prior to January 1, 1971, components (including supports) must meet the requirements of paragraphs (g) (4) and (5) of this section to the extent practical.

50.55a(g)(4): Throughout the service life of a boiling or pressurized water-cooled nuclear power facility, components (including supports) which are classified as ASME Code Class 1, Class 2, and Class 3 must meet the requirements, except design and access provisions and pre-service examination requirements, set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code ... to the extent practical within the limitations of design, geometry and materials of construction of the components.

50.55a(g)(5)(iv): Where an examination requirement by the code or addenda is determined to be impractical by the licensee and is not included in the revised inservice inspection program as permitted by paragraph (g)(4) of this section, the basis for this determination must be demonstrated to the satisfaction of the Commission ...

Prairie Island was designed and constructed prior to development of ASME XI, therefore design for accessibility and inspection coverage is not, in many cases, sufficient to permit satisfying the current Code requirements. Limitations to inspections are primarily due to obstructions, interference and design configurations.

Summary of the limited examinations are described below and also included in the Table, which follows.

Part A: Category B-J, "Pressure Retaining Welds in Piping"

Summary No. 501125, W-1, Reactor Coolant Pump to Pipe Weld, is limited to volumetric (UT) examination to 49.2% coverage. The limited examination coverage is the result of interference from a 6" branch connection at 270 degrees, 3" from toe of weld.

Summary No. 501140, W-1, Reactor Coolant Nozzle to Elbow Weld, is limited to volumetric (UT) examination to 55.35% coverage. The limited examination coverage is the result of the design configuration of the nozzle to elbow weld, which prohibits one of the four directional scans required.

Summary No. 501638, W-7, Reactor Coolant Valve to 45 degree Elbow Weld, is limited to volumetric (UT) examination one sided examination 50.00% coverage. PDI UT procedure is not qualified for the detection of flaws on the far side of single side access examinations. The technique provided by the PDI procedure was used for a best effort examination for flaws on the far side of the weld. Valve to elbow configuration limits this examination to single side.

Summary No. 501804, W-9, Reactor Coolant Elbow to pipe weld, is limited to volumetric (UT) examination to 58.75% coverage. The limited examination coverage is the result of interference from an install box restraint close to the weld toe that prevents four directional scanning of complete weld.

<u>Part B</u>: Category C-C "Integral attachments for Vessels, Piping, Pumps and Valves"

Summary No. 500978, Main Steam Hanger H-2, Integral attached welds, is limited to surface examination of only 74.3% of surface area due to restraint configuration.

Summary No. 500985, Main Steam Hanger H-3, Integral attached welds, is limited to surface examination of only 74.3% of surface area due to restraint configuration.

Summary No. 500988, Main Steam Hanger H-3, Integral attached welds, is limited to surface examination of only 74.3% of surface area due to restraint configuration.

<u>Part C</u>: Category C-F-1 "Pressure Retaining Welds in Austenitic Stainless Piping"

Summary No. 500251, W-17, Safety Injection Pipe to Valve weld, is limited to volumetric examination coverage of 50.00%. PDI UT procedure is not qualified for the detection of flaws on the far side of single side access examinations. The technique provided by the PDI procedure was used for a best effort examination for flaws on the far side of the weld. Pipe to Valve configuration limits this examination to single side.

Summary No. 502388, W-1, Safety Injection Valve to Pipe weld is limited to volumetric examination coverage of 50.00%. PDI UT procedure is not qualified for the detection of flaws on the far side of single side access examinations. The technique provided by the PDI procedure was used for a best effort examination for flaws on the far side of the weld. Valve to Pipe configuration limits this examination to single side.

Summary No. 502147, W-18/LSU, Residual Heat Removal Pipe to Flange weld is limited to volumetric examination coverage of 75.00%. PDI UT procedure is not qualified for the detection of flaws on the far side of single side access examinations. The technique provided by the PDI procedure was used for a best effort examination for flaws on the far side of the weld. Pipe to Flange configuration limits this examination to single side.

Summary No. 502372, W-1/LSD, Residual Heat Removal Valve to Reducer weld is limited to volumetric examination coverage of 50.00%. PDI UT procedure is not qualified for the detection of flaws on the far side of single side access examinations. The technique provided by the PDI procedure was used for a best effort examination for flaws on the far side of the weld. Valve to reducer configuration limits this examination to single side.

Summary No. 502392, W-5/LSD, Residual Heat Removal Valve to Reducer weld is limited to volumetric examination coverage of 50.00%. PDI UT procedure is not qualified for the detection of flaws on the far side of single side access examinations. The technique provided by the PDI procedure was used for a best effort examination for flaws on the far side of the weld. Valve to reducer configuration limits this examination to single side.

<u>Part D</u>: Category C-F-2 " Pressure Retaining Welds in Ferritic and low alloy Piping."

Summary No. 500830, W-14/LSU, Main Steam Pipe-Flanged Nozzle weld is limited to surface examination coverage of 83.3%. Interference from a Hanger installed top dead center of weld prohibits adequate surface examination coverage.

## Additional Means of Establishing Integrity:

In addition, system pressure tests and associated visual inspections (VT-2) required by Section XI are performed at required frequency to ensure the piping system is capable of maintaining pressure integrity. System integrity is monitored during normal operation by many direct and indirect methods, e.g., containment radiation monitoring, containment air monitoring, containment sump monitoring, containment temperature monitoring, system walk downs, surveillance testing, etc.

For all listed B-J Category weld with UT volumetric limitations the associated required surface examination (PT or MT) was performed in accordance with Section XI.

For all listed C-C Category integral attached welds with surface examination limitations the associated required visual examination (VT-3) has been performed.

For all listed C-F-1 Category, austenitic piping welds with UT volumetric limitations the associated required surface (PT) examination was performed in accordance with Section XI.

All in-service inspection at Prairie Island Unit 2 have been done to the greatest extent practical. When limitation to required inspections are encountered procedure ISI-LTS-1 is applied which requires approved alternative examination techniques be considered, or applied to gain the maximum obtainable inspection coverage practical. In all of the

above items identified, this procedure was used and the maximum inspection coverage has been achieved for the components listed to ensure pressure and structural integrity.

## Alternate Examination:

The limitations have been noted on the ISI examination reports and are included in the ISI Outage Summary Report. NMC will continue to document the limitations. No additional alternative examinations are proposed.

Limitations are due to configuration design, geometry, and materials of construction of the components or limitations of approved Performance Demonstration Initiated (PDI) examination procedures for the detection of flaws. NMC will continue to utilize the most current approved PDI techniques available for future examinations.

## INSERVICE INSPECTION EXAMINATION PLAN

# Table: Limited Examinations-Prairie Island Unit 2 –2002 Refueling Outage.

Category	Item No.	SYSTEM	ISO	Component Id.	Description	Method	% Coverage	REPORT	Limitation
B-J	B9.11	Reactor Coolant	2-1SI-32C	W-1 501125	Pump to Pipe	Volumetric UT	49.2%	2002U035	Examination Limited due to 6" branch connection at 270 degrees, 3" downstream from weld toe. See attached report 2002U035
B-J	B9.11	Reactor coolant	2-ISI-33B	W-1 501140	Nozzle to Elbow	Volumetric UT	55.3%	2002U045	Examination limited due to the nozzle configuration at weld toe. See attached report 2002U045.
B-J	B9.11	Reactor Coolant	2-ISI-28	W-7 501638	Valve to 45 Elbow	Volumetric UT	50.00%	2002U038	Single Sided examination- PDI examination limitation. PDI procedure is not qualified for the detection of flaws on the far side of single side access exams. See attached report 2002U038
B-J	B9.11	Reactor Coolant	2-ISI-20A	W-9 501804	Elbow to Pipe	Volumetric UT	58.75%	2002U033	Examination limited due to box restraint prohibiting access to weld. See attached report 2002U033
C-C	F-A,B,C	Main Steam	2-ISI-47A	H-1 500978	Rupture Restraint	Surface MT	74.30%	2002M025	Weld area inaccessible due to restraint configuration. See report 2002M025
C-C	F-A,B,C	Main Steam	2-ISI-47A	H-2 500985	Seismic Restraint	Surface MT	74.30%		Weld area inaccessible due to restraint configuration. See report 2002M024
C-C	F-A,B,C	Main Steam	2-ISI-47A	H-3 500988	Seismic Restraint	Surface MT	74.30%	2002M021	Weld area inaccessible due to restraint configuration. See attached report 2002M021

## INSERVICE INSPECTION EXAMINATION PLAN

C-F-1	C5.11	Safety Injection	2-ISI-72	W-17 500251	Pipe to Valve	Volumetric UT	50.00%	2002U036	Single Sided examination- PDI examination limitation. PDI procedure is not qualified for the detection of flaws on the far side of single side access exams. See attached report 2002U036
C-F-1	C5.11	Safety Injection	2-ISI-70	W-1 502388	Valve to Pipe	Volumetric UT	50.00%	2002U037	Single Sided examination- PDI examination limitation. PDI procedure is not qualified for the detection of flaws on the far side of single side access exams. See attached report 2002U037
C-F-1	C5.10	Residual Heat Removal	2-ISI-51	W-18/LSU 502147	Pipe to Flange	Volumetric UT	75.00%	2002U001	Axial examination performed from pipe side only, due to Pipe to Flange Configuration. PDI procedure is not qualified for the detection of flaws on the far side of single side access exams. See attached report 2002U001
C-F-1	C5.10	Residual Heat Removal	2-ISI-50	W-1/LSD 502372	Valve to Reducer	Volumetric UT	50.00%	2002U028	Single Sided examination- PDI examination limitation. PDI procedure is not qualified for the detection of flaws on the far side of single side access exams. See attached report 2002U028

## INSERVICE INSPECTION EXAMINATION PLAN

C-F-1	C5.10	Residual Heat	2-ISI-50	W-5/LSD	Valve to	Volumetric	50.00%	2002U026	Ş
		Removal			Reducer	UT			PDI examination limitation.
				502392					PDI procedure is not
									qualified for the detection of
									flaws on the far side of
			ļ						single side access exams.
									See attached report
									2002U026
C-F-2	C5.80	Main Steam	2-ISI-46B	W-14/LSU	Pipe Flanged	Surface	83.00%	2002M016	Surface examination is
					Nozzle	MT			limited due to hanger
				500830					interference at top dead
									center. See attached report
									2002M016

Attached reports in the following order (same as the order in the Table):

- 1. UT Pipe Weld Examination 2002U035 4 pages
- 2. UT Pipe Weld Examination 2002U045 4 pages
- 3. UT Pipe Weld Examination 2002U038 3 pages
- 4. UT Pipe Weld Examination 2002U033 5 pages
- 5. Magnetic Particle Examination 2002M025 6 pages
- 6. Magnetic Particle Examination 2002M024 6 pages
- 7. Magnetic Particle Examination 2002M021 6 pages
- 8. UT Pipe Weld Examination 2002U036 3 pages
- 9. UT Pipe Weld Examination 2002U037 3 pages
- 10. UT Pipe Weld Examination 2002U001 3 pages
- 11. UT Pipe Weld Examination 2002U028 3 pages
- 12.UT Pipe Weld Examination 20002U026 3 pages
- 13. Magnetic Particle Examination 2002M016 4 pages

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# UT Pipe Weld Examination

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Site/Unit: NMC / PI2 Summary No.: 501125 Workscope: ISI				Procedure: Procedure Revision/FC: Work Order No.:		5 /			Outage No.: Report No.:						
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Angle Used	0	45	45T	60		<u> </u>	]	******							
Scanning dB	47.0	87.0	83.5	N/A											
Indication(s):	Yes	] No	) 🔽			Sca	n Coverage:	Upstream 🗍	Downstream	n 🔽 🖸	w 🗹 🛛 c	:cw 🗹			
Comments:							•								
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v															
Results:	NAD 🖌	9							•						
				, ,	GEO 📋		· · · · · · · · · · · · · · · · · · ·								
Percent Of Co	werage U	otained	> 90%:		No		Reviewed Prev	ious Data:	Yes						
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	Level II		~~~~~	4	Signature			te Site Revie	and the second	<u> </u>	Saul	LA LATT		-14	<u>- 02</u> Date
Thomas, Trav		-1	<u>Lroll</u>	from				2 Wren, Jer		/ ``	An	Bignatures	2	-19-	"U 7
Other N/A	Level N	/A _/			Signature		Dat	te ANII Revie Clow, Ror		1	R	Signature		12110.	Date



## **Limitation Record**

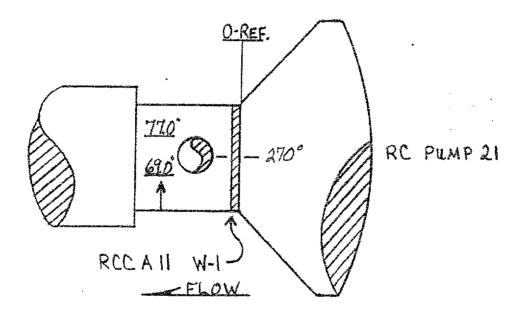
Site/Unit:	NMC	NMC / PI2		Procedure:	ISI-UT-11		Outage No.:	PI2RF2002		
Summary No.:		5011	25	Procedure Revision/FC:	5	i		Report No .:	02U(	
Workscope:		IS		Work Order No.:	<u></u>	010694	6	Page:	 of	4

Description of Limitation:

6" Branch connection at 270 degrees, 3" downstream from weld toe.

Sketch of Limitation:

G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL UT\2002u035\_1.bmp

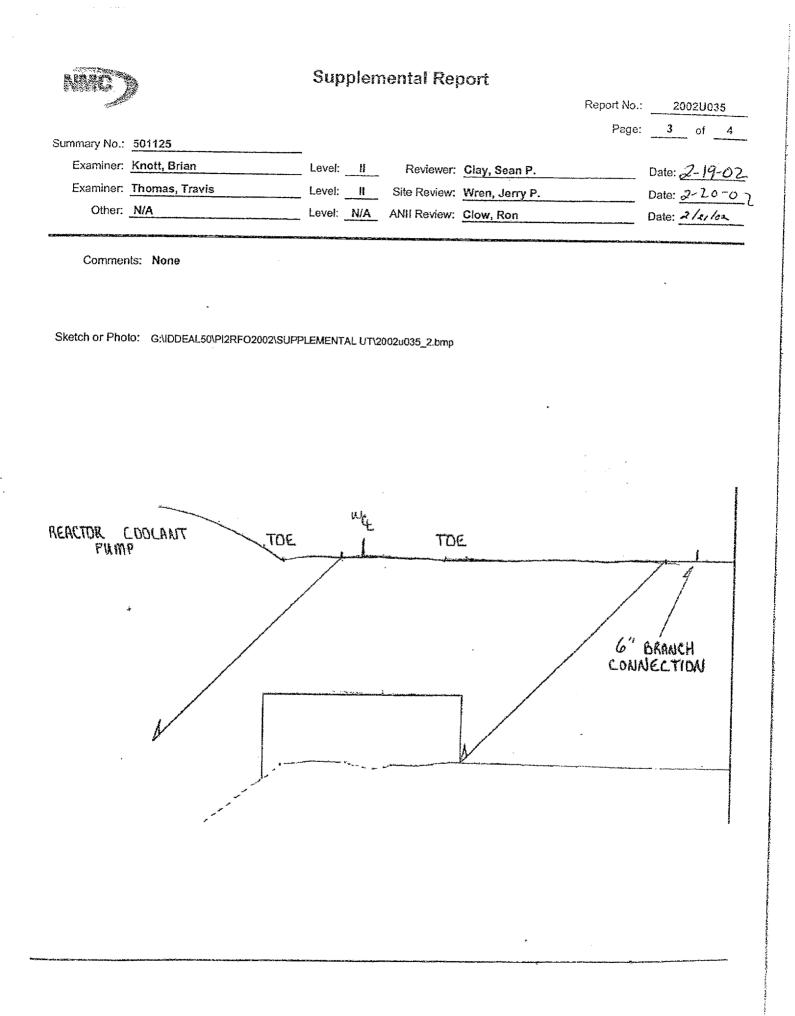


#### Limitations removal requirements:

N/A

### Radiation field: N/A

Examiner	Level	11	Signature /	Date	Reviewer	Signature	Date
Knott, Bria		. 0	Mia A. Knott	2/12/2002	Clay, Sean P.	1 DETEL 1	TT 2-19-02
Examiner	Level	11	Signature ,		Site Review	Signature	Date
Thomas, Tr	ravis	1	Inano Thomas	2/12/2002	Wren, Jerry P.	1 Am P.Wm	2-20-02
Other	Level	N/A	Signature		ANII Review	Signature	Date
N/A		/	,		Clow, Ron	12el	2/21/02





# Determination of Percent Coverage for UT Examinations - Pipe

Site/Unit:	NMC /	PI2	Proced	ure:	ISI-UT-11	Outage I	No.: PI2RF2002
Summary No.:	501125	; F	Procedure Revision	/FC: <u>5</u>		Report I	No.: 2002U035
Workscope:	ISI		Work Order	No.:	0106946	Pa	ge: <u>4</u> of <u>4</u>
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<u>45 deg</u>							
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Scan 2	100.000	_ % Length >	96.800	% volume of I	ength / 100 =	96.800	_ % total for Scan 2
Scan 3	100.000	_ % Length >	(50.000	% volume of I	ength / 100 = _	50.000	_ % total for Scan 3
Scan 4	100.000	_ % Length X	50.000	% volume of l	ength / 100 =	50.000	% total for Scan 4
						•	
	Add totals and o	divide by # s	cans =49.200	% total for 4	l5 deg		
Other deg		(to be used f	or supplemental sc	ans)			
The data to	be listed below	is for coverag	ie that was not obta	nined with the 4	5 deg scans.		
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Scan 2	0.000	% Length >	< 0.000	% volume of I	ength / 100 = _	0.000	_% total for Scan 2
Scan 3	0.000	_ % Length >	0.000	% volume of I	ength / 100 =	0.000	% total for Scan 3
Scan 4	0.000	_ % Length >	0.000	% volume of l	ength / 100 = _	0.000	_% total for Scan 4
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Percent co	mplete coverag	e					
Add totals fo	or each scan requ	uired and divid	de by # of scans to	determine;			
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	_		Ň				
Site Field Su	upervisor:	Au	Puh		Date: 2-	20-02	

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NHAC						U	IT Pipe Wel	d Exam	ination								
s	ite/Unit:	NMC	1	PI2			Pro	cedure:	ISI-UT	-11			Outage No	o.: I	PI2RF2	2002	
Summ	ary No.:	·····	50114	10			Procedure Revis	ion/FC:	5 /				Report No	·····	2002U		
Wor	kscope:		ISI				Work Ord	der No.:	01069	946			Pag	e: 1	of	4	
Code:		1989			Co	ode Cat.:	B-J		Location	n:			Containme	∋nt			
Drawing No.:			2-ISI-	33B			Description: N	ozzle To Ell	oow								
System ID:	RC		***			· · · · · · · · · · · · · · · · · · ·											
Component ID:	<u>W-1</u>								Size/Length:	2.	2" / 97.5	" T	hickness/Dia	ameter:	2.890	)" / 31.0	11
Limitations:	See Co	nments.				·				Start 1	fime:	0927	Finisl	n Time:		1251	
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Potter, Michae	44	1 /	Nihn	K¥	A	-	Date 2/19/2002	Site Review Wren, Jerry			$Q_{I}$		ignature '		2-2	1-02	Date
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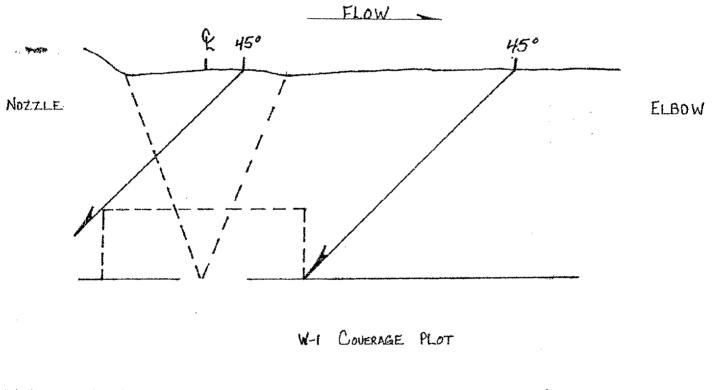
## **Limitation Record**

Site/Unit:	NMC	1	Pl2	Procedure:	Procedure: ISI-UT-11		11	Outage No.:	PI2RF2002		002
Summary No.:	••••	501140		Procedure Revision/FC:		1		Report No.:	2002U045		
Workscope:		IS	-	Work Order No .:		010694	6	Page:	2	of	4

**Description of Limitation:** 

No scan 1 performed due to nozzle configuration.

Sketch of Limitation: G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL UT\2002u045\_2.bmp



Limitations removal requirements: .

N/A

### Radiation field: N/A

Examiner	Level		Signature /	Data	Reviewer		Signature	Date
Knott, Brian		11	Vian D. Keitt		Clay, Sean P.	1	\ <u>~</u> ~^	Litt 2-2002
Examiner	Level	$\langle \!$	A Stanatore I.	Date	Site Review		- Signature	Date
Potter, Mich	ael E.	1	Minhay C totas	2/19/2002	Wren, Jerry P.	ア	Am P.Wn	2-21-02
Other	Level	N/A	Signature	Date	ANII Review	*	Signature	Date
N/A		1			Clow, Ron	1	Rel	- 2/21/02



## **Determination of Percent Coverage for** UT Examinations - Pipe

Site/Unit: _	ummary No.: 501140		Proce cedure Revisior		Outage Report	•
Workscope: _	IS		Work Order	No.: 0106946	Pa	age: <u>3</u> of <u>4</u>
<u></u>	- Wildlin de lange y e seinde	nini (Catina ang ng Propagalang Gargan (Barlang Prop	47-19-19-19-19-19-19-19-19-19-19-19-19-19-	ануулуу олон Тайта (барун аул народа улуу сайта ал ал алуу улуу сайтаа. та		
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Scan 1	100.000	% Length X _	0.000	% volume of length / 100 =	0.000	% total for Scan 1
Scan 2	100.000	% Length X	100.000	% volume of length / 100 =	100.000	% total for Scan 2
Scan 3	100.000	% Length X	60.700	% volume of length / 100 =	60.700	% total for Scan 3
Scan 4	100.000	% Length X	60.700	% volume of length / 100 =	60.700	% total for Scan 4
<u>Other deg</u> The data to	_	(to be used for one of the second secon		cans) tained with the 45 deg scans.		
Scan 1	0.000	% Length X	0.000	% volume of length / 100 = _	0.000	% total for Scan 1
Scan 2	0.000	% Length X	0.000	% volume of length / 100 = _	0.000	% total for Scan 2
Scan 3	0.000	% Length X _	0.000	_ % volume of length / 100 = _	0.000	% total for Scan 3
Scan 4	0.000	% Length X _	0.000	% volume of length / 100 =	0.000	% total for Scan 4

### Percent complete coverage

Add totals for each scan required and divide by # of scans to determine;

55.350 % Total for complete exam

Site Field Supervisor: <u>Aen P. W.</u> Date: <u>Z-21-02</u>

**.**....

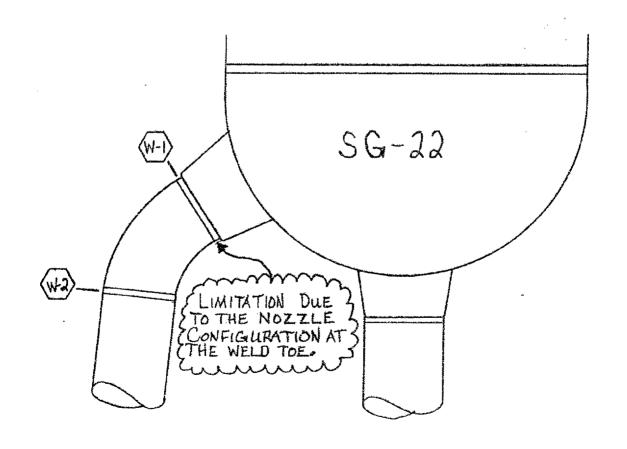


## **Supplemental Report**

					Report No .:	2002U045
					Page:	4 of 4
Summary No.:	501140					
Examiner:	Knott, Brian	Level: II	Reviewer	Clay, Sean P.		Date: <u>2-20-02</u>
Examiner:	Potter, Michael E.	Level:	Site Review:	Wren, Jerry P.	······································	Date: 2-21-02
Other:	N/A	Level: N/A	ANII Review:	Clow, Ron		Date: 2/21/02

Comments: None

Sketch or Photo: G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL UT\2002u045\_4.bmp



NING
- 3

# UT Pipe Weld Examination

Summ			50163 ISI		- - Code	Cat.:	Procedure Revisi	er No.:	1 / 0106946 Location:		Re	tage No.: eport No.: _ Page:	20	RF200: 02U038 of	
Component ID: Limitations:		ilde acce	ess due t	o configura	tion. See	attaci	ned sheets.		Size/Length:Sta	.90" / 21.0" Int Time:	Thickn 0835	ess/Diamet Finish Tin		.74" / 8 090	····
Examination & Lo Location: Temp. Tool M Cal. Sheet No	T fg.:	Tela	Center		D Location:	<b></b>	Centerline of W	eld	Couplant:			Batch No.:		#001/	43
Angle Used Scanning dB Indication(s): Comments: See Limitatio	0 N/A Yes [	41.8		60 66.8			n Coverage: Ups	stream 🗌	Downstream 🗹	CW 🗹	ccw 🗹	]			
Results: Percent Of Co Examiner	verage Ol		IND 🗌 90%:	GEC		F	Reviewed Previous		-NO YES	7-19-02			1999-1999 Januar		
Tiri <sup>i</sup> m, Jeremy Examiner Griebel, David	Level II	1	A.	Signat ) Signat Signat	ure		2/14/2002 ( Date S 2/14/2002 V Date A	Site Review	Р.	, Att. . D.	Signatu Signatu Signatu	Lu I re re		2-18 -19-0 9/62	Date



## **Limitation Record**

Site/Unit:	NMC	1	Pl2	Procedure: ISI-UT-16A Outage No.					Pl	2RF2	002
Summary No.:		50163	38	Procedure Revision/FC:	1 /		1 / Report No.:			2002U038	
Workscope:		ISI		Work Order No.:		010694	6	Page:	2	of	3

Description of Limitation:

Single sided exam - Although the exam was performed through 100% of the code required volume. Procedure ISI-UT-16A is not qualified for the detection of flaws on the far side of single side access exams. The techniques provided by this procedure were used for a best effort exam for flaws on the far side of the weld.

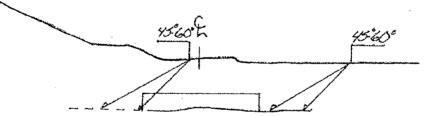
Sketch of Limitation:

G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL UT\2002u038\_1.bmp

# FLOW

VALVE

ELROW



WELD W-7

COVERAGE F

Limitations removal requirements: N/A

#### Radiation field: N/A

Examiner	Level	}	Signature	Date	Reviewer	Signature	Date
Timm, Jere	emy T.	14	La Cas		Clay, Sean P.	1 Drugla Litt	T2-12-02
Examiner	Level	11	Signature	Date	Site Review	Signature	Date
Griebel, Da	wid M.	1	Draff	2/14/2002	Wren, Jerry P.	May P.W.M.	2-19-12
Other	Level	N/A	Signature	Date	ANII Review	Signature	Date
N/A		1			Clow, Ron	I COL .	2/19/02



 $\searrow$ 

# Determination of Percent Coverage for UT Examinations - Pipe

Site/Unit:	NMC /	PI2	Proced	lure:	ISI-UT-16A	Outage N	lo.: PI2RF2002
Summary No.:	501638	B Proc	cedure Revision	/FC:1	/	Report N	lo.: 2002U038
Workscope:	ISI		Work Order	No.:	0106946	Pa	ge: <u>3</u> of <u>3</u>
						antan Production de constantes de constantes de constantes de constantes de constantes de constantes de consta	
<u>45 deg</u>	:						-
Scan 1	00.000	_ % Length X _	50.000	_ % volume of	length / 100 =	50.000	_% total for Scan 1
Scan 2	00.000	_ % Length X _	50.000	% volume of	length / 100 =	50.000	% total for Scan 2
Scan 3	100.000	_ % Length X _	50.000	% volume of	length / 100 =	50.000	% total for Scan 3
Scan 4	100.000	_ % Length X _	50.000	% volume of	length / 100 =	50.000	% total for Scan 4
						•	
,	Add totals and	divide by <b># sc</b> ar	ns = 50.000	% total for	45 deg		
							,
						• *	
						·	
Other deg	- 60	(to be used for s	supplemental so	ans)			
The data to	b isted below	is for coverage t	hat was not obta	alned with the	45 deg scans.		
Scan 1	0.000	% Length X _	0.000	_ % volume of	f length / 100 = _	0.000	_% total for Scan 1
Scan 2	0.000	_ % Length X _	0.000	% volume of	f length / 100 =	0.000	_% total for Scan 2
Scan 3	0.000	_ % Length X _	0.000	% volume of	length / 100 =	0.000	_% total for Scan 3
Scan 4	0.000	_ % Length X _	0.000	% volume of	length / 100 =	0.000	_% total for Scan 4
Percent cor	<u>n plete coverag</u>	<u>e</u>					
Add totals fo	r each scan rea	uired and divide	by # of scans to	determine			
	% Total for cor		_y er courie to	cotornalo,			
Site Field Su		X	$2r_{\rm el}$		Date: 2	-19-02	
Site Field Su		Flent					
					,		

NRC

# UT Pipe Weld Examination

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and so we are the

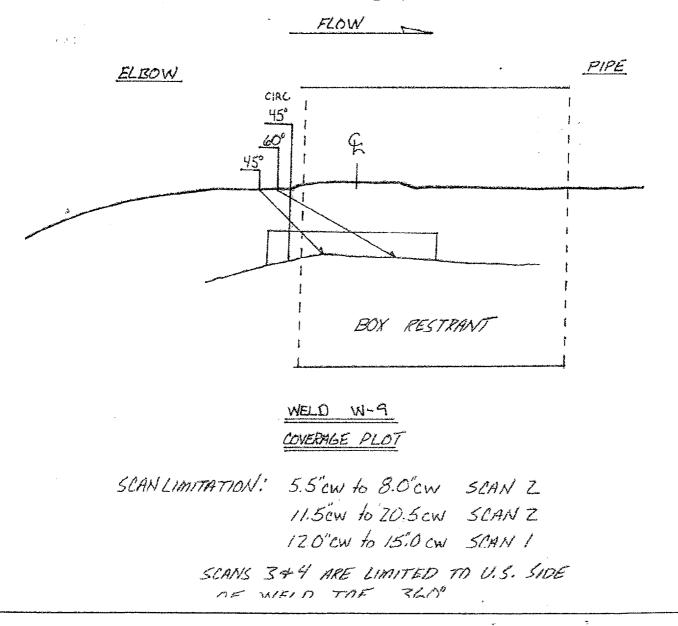
Summ	ary No.:		5018				Procedure Revis	cedure: sion/FC: der No.:	1 /				Outage No.: Report No.: Page:	and the second second	2RF200 02U03: of	3
Code: Drawing No.: System ID:	RC	1989	2-151-	20A	C	ode Cat.:	B-J Description: E	lbow to Pip	Locati e	ion:			22 Vault			
Component ID: Limitations:		ached lir	nitation	sheet.					Size/Length		. <b>95" / 27"</b> Time:		kness/Dian Finish <sup>-</sup>		.80" / 141	
Examination : Lo Location: Temp. Tool M	E	xtradose		w			Surface Cond Centerline of V NSP 185	Veld	Couplant:				Batch N	o.:	#001	43
Cal. Sheet No Angle Used Scanning dB	o.: 0	45	45T	60 <b>70.0</b>		1065, 2002				- -	90	°F				
Indication(s): Comments: Reference F			)38 for r	olctures	-	Sca	n Coverage: Up	stream 🖌	Downstrear	m 🔽	CW 🗹	CCW	/ 🔽			
, Results:	NAD 5	2			GEO 🗌											
Percent Of Co			> 90%:		No		Reviewed Previou	s Data:	Yes							The state of the second state of the
Timm, Jeremy Examiner Griebel, David	Level II	//	A		Signature Signature		2/12/2002 Date 2/12/2002	Reviewer Clay, Sean Site Review Wren, Jerry ANII Review	/ P.	ζ	At	Sign	ature	2	2 -18- 119/02	Date 0-/7-02 Date 02 Date
L								Clow, Ron				C		a,	19/02	•

NRE	Sup	plem	iental Rej	port				
					Report No.:	20	02U0	33
					Page:	2	_ of	5
Summary No.: 501804							<b>~</b> / -	
Examiner: Timm, Jeremy T.		<u> </u>		Clay, Sean P.		Date: 6	2-11	-02
Examiner: Griebel, David M. Other: N/A	Level:			Wren, Jerry P.	<u></u>	Date: _	2/18	-06
	Level.	<u> </u>	ANII Review:	Clow, Roll		Date: _	<u> ~     </u>	7/02
Comments: None								
·								
Sketch or Photo: G:\IDDEAL50\PI2RFO2002\SUPF	LEMEN	TAL UT\2	002u033_2.bmp					
	, <del> </del>	FLC	W F	-				
					· · · ·	PIPE		
ELBOW			~		· <u> </u>	TPE		
			4	<b></b>				
	<u>60</u> °			<u>60</u> °				
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43°60°	$\leftarrow$		>	J				
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		$\overline{}$	X					
- Marine Ma								
	v	URI N	W-9					
	t							
	4	overa	GE PLOT					
PLOT SHOWS	COV	IR AL	FOR 24	"OF 27" IN S	CAN I DI	Ŕ		
PLDT SHOW.	<u>s co</u>	VERA	IBE FOR	15.5 OF 27"	N SCAN Z	DIR.		
				•				

NING	Supplemental Report		
		Report No.:	2002U033
		Page:	3 of 5
Summary No.: 501804			
Examiner: Timm, Jeremy T.	Level: II Reviewer: Clay, S	Sean P.	Date: 2-17-02
Examiner: Griebel, David M.	Level: II Site Review: Wren,	Jerry P.	Date: 2-18-02
Other: N/A	Level: N/A ANII Review: Clow, I	Ron	Date: 2/19/02

Comments: None

Sketch or Photo: G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL UT\2002u033\_3.bmp





## **Limitation Record**

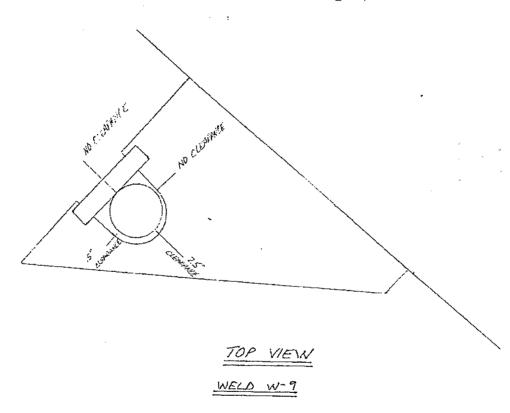
Site/Unit:	NMC	/	PI2	Procedure:	ISI-UT-	16A	Outage No.:	RF2	002
Summary No.:		5018	04	Procedure Revision/FC:	/		Report No.:	02U(	
Workscope:		ISI	l	Work Order No.:	 01069	46	Page:	 of	5

Description of Limitation:

Reference PT report #2002P038 for pictures.

Sketch of Limitation:

G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL UT\2002u033\_1.bmp



Limitations removal requirements:

N/A

### Radiation field: N/A

Examiner	Level		Signature	Date	Reviewer	Signature	Date
Timm, Jeren	ny T.	j	Ut. July For J.T.	IMA 2/12/2002	Clay, Sean P.	1 Aliple	L. # 2-17-02
Examiner	Level	<b>!</b> [	Signature	Date	Site Review	Signature	Date
Griebel, Dav	rid M.	1	Dint.	2/12/2002	Wren, Jerry P.	Bultin	2-18-01
Other	Level	N/A	Signature (	Date	ANII Review	Signature	Date
N/A		1			Clow, Ron	ilell	2/19/02



.

# **Determination of Percent Coverage for** UT Examinations - Pipe

Site/Unit:	NMC /	Pl2	Proce	dure: ISI-UT-16A	ISI-UT-16A Outage No.: Pl2					
mmary No.:	50180	4 Proc	edure Revision	n/FC: <u>1 /</u>	Report No.: 2002					
Workscope:	ISI		Work Order	r No.: 0106946	Pa	age: <u>5</u> of				
<u>45 deg</u>										
Scan 1	89.000	% Length X	26.300	% volume of length / 100 =	23.407	% total for Scan				
Scan 2	57.500		26.300	- % volume of length / 100 =	15.123	% total for Scan 2				
Scan 3	100.000	—	25.000		25.000	% total for Scan 3				
Scan 4	100.000	% Length X	25.000	_ % volume of length / 100 =	25.000	% total for Scan 4				
		% Length X divide by # scar			25.000	% total for Scan 4				
					25.000	% total for Scan 4				
					25.000	% total for Scan 4				
	Add totals and		is = <u>22.132</u>	% total for 45 deg	25.000	% total for Scan 4				
<u>Other deg</u>	Add totals and	divide by # scar	is =22.132 supplemental s	% total for 45 deg	25.000	% total for Scan 4				
<u>Other deg</u>	Add totals and	divide by # scar	is =22.132 supplemental s hat was not ob	% total for 45 deg	<u>25.000</u>	 - -				
<u>Other deg</u> The data to	Add totals and - 60 be listed below	divide by # scar (to be used for s v is for coverage t	supplemental s hat was not ob	cans) scans)	•	% total for Scan				
<u>Other deg</u> The data to Scan 1	Add totals and - <u>60</u> be listed below 89.000	to be used for solution of the formation of the second sec	supplemental s hat was not ob 100.000 100.000	<pre>% total for 45 deg xcans) tained with the 45 deg scans. % volume of length / 100 =</pre>	89.000	% total for Scan 4				
<u>Other deg</u> The data to Scan 1 Scan 2	Add totals and - <u>60</u> b be listed below 89.000 57.500	to be used for s (to be used for s v is for coverage t % Length X%	is = <u>22.132</u> supplemental s hat was not ob <u>100.000</u> <u>100.000</u> <u>0.000</u>	<pre>% total for 45 deg ccans) atained with the 45 deg scans. % volume of length / 100 =% volume of length / 100 =%</pre>	<u>89.000</u> 57.500	% total for Scan % total for Scan				

Add totals for each scan required and divide by # of scans to determine;

58.757 % Total for complete exam

Jun P.Un 20-111 Date: 2-18-02 Site Field Supervisor:

7



# **Magnetic Particle Examination**

Site/Unit: <u>NMC / PI2</u>			2	Procedure: ISI-MT-1		1	Outage No.	: <u>PI2F</u>	RF2002		
Summ	ary No.:	·····	500978		Procedure Re	v/FC:	12 /		Report No.:	:200	2M025
Worl	kscope:		ISI		Work Orde	r No.:	0106946	3	Page:	: _1	of <u>6</u>
Code:		1989		Code	Cat.:C	-C					
			SI- 47A			n: Rupture I					
System ID:	MS										
Componen	t ID: <u>H-1</u>								Size/Length:	N	/A
Limitations	See :	attached	sheets.								
Light Met	ter Mfg.:		N/A		Serial	No.:	N/A		Illumination:	N/A	uw/cm <sup>2</sup>
			N/A			No.:			Surface Temp.:		
Resolutio	on:		Not Us	ed							
	c Serial No.								As Welde	ed	
			Top Dead	Center		Field Orie	entation:		Longitudi	nal	
	Particle N										
					Wet 🗌	Mixed:	Yes 🗌		Applied By:	Du	sting 🗹
					Dry 🗹		No 🗹			Spra	aying 🗌
					uorescent			N/A	·····	Floo	oding 🗌
					search		S	erial No.:	<u> </u>	817	
· · ·	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		N/A	- · ·	5	Fixed Sp	pacing	-	-		
Adj. Spaci	•			_ inches		Encirclin	g Coils	<u> </u>	N/A Tu	mš	
Prods. Sp	acing	·	N/A	_ inches		Current	(machine se	etting)	N/A	A	mperes
Indication	Loc	Loc	Diameter	Length	Туре			R	emarks	*****	
No.	L	W			R/L						
									*****		
					······						
					*****************					••••••••••••••••••••••••••••••••••••••	
	ļ				<del></del>						
Comments										*****	
Reference			98-0273, 98	3-0274.	90,43-02						
Results:	NAD		IND	~		· · · · · · · · · · · · · · · · · · ·					·····
Percent Of	Coverage	Obtained	> 90%:	-Ye	5	Reviewed	Previous D	ata:	Yes	-	
Examiner	Level	 I	Signa	ture	Date	Reviewer			Signature		Date
Loredo, Qui		14		E		Halling, Dav	/id A.	$1 \leq 1$	Deldell	NZ.Z	21-02
Examiner Potter, Mich	Level II nael E.	1/1	M. Signa	- Total		Site Review Wren, Jerry	Р.	$\langle \mathbf{Q} \rangle$	Signature	 	Date
Other	Level N	I/A	Signa	ture		ANII Review		- <u>;-</u> -6	Signature	<u> </u>	Date
N/A		1				Clow, Ron		1.19	TH -	2/21	102



## **Limitation Record**

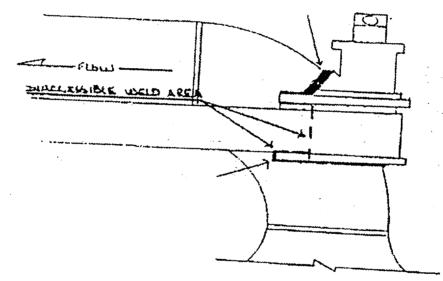
Site/Unit:	NMC	1	PI2	Procedure: ISI-MT-1 Outage No.:				Pl2	PI2RF2002				
Summary No.:		50097	8	Procedure Revision/FC:	/FC: 12 /		12 / Description			2002M025			
Workscope:		ISI		Work Order No.:	0106946		6	Page:	2	of	6		

Description of Limitation:

East Side. See supplemental sheets for additional photos.

Sketch of Limitation:

G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL MT\2002m021\_1.bmp



Limitations removal requirements: N/A

Radiation field: N/A

Examiner	Level	11	Signatura		In.		
		33	Signature		Reviewer	Signature	Date
Loredo, Q	uirino	1	9. Jacob	2/17/2002	Hailing, David A.	1 WALLY	2 21-02
Examiner	Level	11	M. Signature 4	Date	Site Review	Signature	Date
Potter, Mi	chael E.	/	Why From	2/17/2002	Wren, Jerry P.	1 Aug P.W.	2-21-02
Other	Level	N/A	Signature	Date	ANII Review	·Signature	Date
N/A		/			Clow, Ron	1 all	2/21/02



						Report No.:	20	2002M025		
Summary No.:	500978	_				Page:	3	of <u>6</u>		
Examiner:	Loredo, Quirino	Level:		Reviewer:	Halling, David A.		Date:	2-21.	oz	
Examiner:	Potter, Michael E.	Level:		Site Review:	Wren, Jerry P.		-	2-21-0		
Other:	N/A	Level:	N/A	ANII Review:	Clow, Ron			2/21/01		

Comments: Top View (Looking Down).

Sketch or Photo: G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL MT\2002m024\_2.bmp



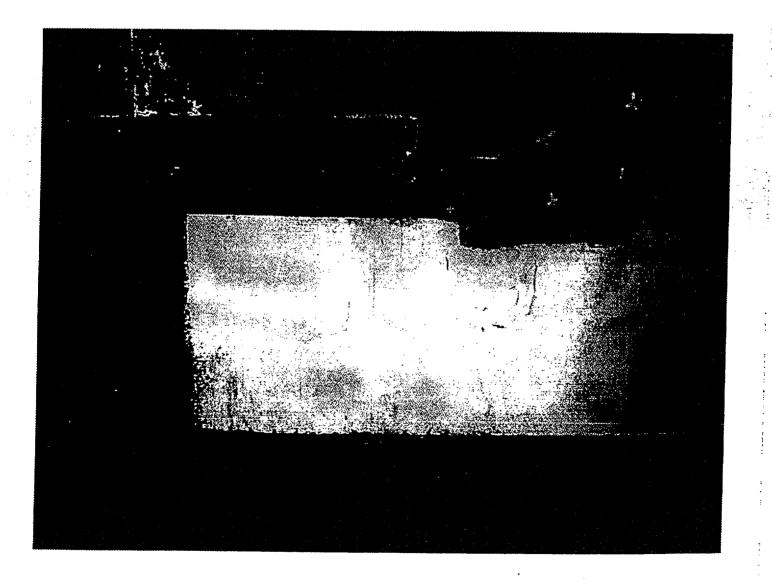


# Supplemental Report

			Report No.:	2002M	25
			Page:	4 of	6
_				<u></u>	
Level: 11	Reviewer: H	Halling, David A.		Date: 2-	21-02
Level: II	Site Review: M	Vren, Jerry P.		Date: Z-7	21-02
Level: <u>N/A</u>	ANII Review:	Slow, Ron		Date: $\frac{2}{2}$	1/02
	Level: <u>II</u>	Level: II Site Review:	Level: II Site Review: Wren, Jerry P.	Page: Level: <u>II</u> Reviewer: <u>Halling, David A.</u> Level: <u>II</u> Site Review: <u>Wren, Jerry P.</u>	Page: <u>4</u> of Level: <u>II</u> Reviewer: <u>Halling, David A.</u> Date: <u>2</u> - Level: <u>II</u> Site Review: <u>Wren, Jerry P.</u> Date: <u>2</u> -

Comments: Side View.

Sketch or Photo: G:\IDDEAL50\Pi2RF02002\SUPPLEMENTAL MT\2002m024\_3.bmp



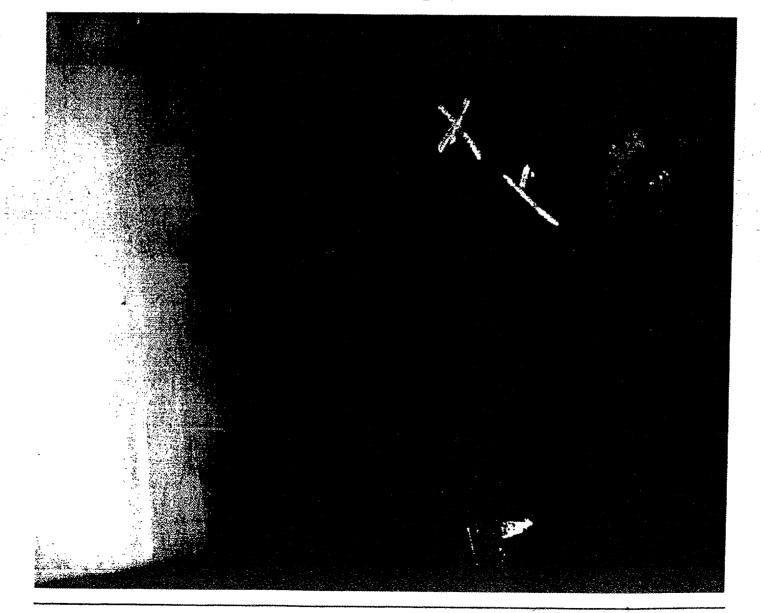


# Supplemental Report

	-					Report No.:	2(	2002M025		
						Page:	5	of	6	
Summary No.:	500978									
Examiner:	Loredo, Quirino	Level:	11	Reviewer:	Halling, David A.		Date:	2-2	1-02	
Examiner:	Potter, Michael E.	Level:		Site Review:	Wren, Jerry P.	·····	Date:	2-2	1-42	
Other:	<u>N/A</u>	Level:	N/A	ANII Review:	Clow, Ron		Date:	2/21	102	
Other:	<u>N/A</u>	Level:	N/A	ANII Review:	Clow, Ron		Date:	2/21	102	

Comments: Inaccessible Weld.

Sketch or Photo: G:\IDDEAL50\Pi2RFO2002\SUPPLEMENTAL MT\2002m024\_4.bmp





## **Determination of Percent Coverage for Surface Examinations**

Site/Unit:	NMC	1	PI2	Procedure:	-	ISI-MT-1		Outage No.:	Pl2	PI2RF2002	
Summary No.:		5009	78	Procedure Revision/FC: 12 /		Report No.:	20(	2002M025			
Workscope: _		ISI		Work Order No .:		106948		Page:	6	of	6

Area Required (as shown in applicable code reference drawing)

12-21-02 91 2.0/3.0 270 Length Width = Total Area required ~<del>0:008-</del> \_ square inches 813 3-21-02

**Coverage Achieved** 

-	Area examined	604.000	sq. in. / Total area required (100%) sq. in.	
	= Percent coverage	0.696	% (area required - area of limitations = area examined)	1
		74.3%	9m - 21-02	

To determine length of a circumferential weld

Note - Diameter refers to actual external diameter not pipe size (see table below)

Diameter 0.000 (Pi) 3.1416

= Length 0.000 inches

Pipe Size	Actual Diameter	(Length) Circumference	Pipe Size	Actual Diameter	(Length) Circumference
2	2.375	7.46	12	12.75	40.06
2.5	2.875	9.03	14	14.0	43.98
3	3.5	11.0	16	16.0	50.27
3.5	4.0	12.57	18	18.0	56.55
4	4.5	14.14	20	20.0	62.83
5	5,563	17.48	22	22.0	69.12
6	6.625	20.81	24	24.0	75.40
8	8.625	27.10	30	30.0	94.25
10	10.75	33.77			0 1.20

Site Field Supervisor:

mplit Date: 2-21-02



# Magnetic Particle Examination

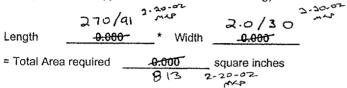
Loredo, Quirino       I       I       I       I       Date       Date       Halling, David A.       I	Sit	te/Unit:	NMC	/ Pi	2	Proce	dure:	ISI-MT-	1	Outage No.:	:Pl2	RF2002
Code:         1989         Code Cat.:         C-C         Location:         Containment           Drawing No.:         24SI-47A         Description:         Seismic Restraint           System ID:         MS	Summa	ry No.:		500985	F	Procedure Re	v/FC:1	2 /		Report No.:	200	)2M024
Code:         1989         Code Cat.:         C-C         Location:         Containment           Drawing No.:         24SI-47A         Description:         Seismic Restraint           System ID:         MS	Work	scope: _		ISI		Work Order	r No.:	010694	6	Page:	_1	of 6
Drawing No: 24SI- 47A Description: Selamic Restraint System ID: MS Component ID: H-2 Size/Length: NIA Limitations: See attached shoet.  Lifth Meter Mig.: N/A Serial No: N/A Illumination: N/A uw/cr Temp. Tool Mig.: N/A Serial No: N/A Surface Tomp: <600  Resolution: Not Used Cal Block Serial No: N/A Surface Condition: As Welded Lo Location: Top Dead Centor Field Orientation: Longitudinal  Resolution: Not Used Cal Block Serial No: N/A Surface Condition: As Welded Lo Location: Top Dead Centor Field Orientation: Longitudinal  Ragentic Particle Material  Brand: Magnaflux Wet Mixed: Yes Applied By: Dusting Ø Type: No. 16 Gray Dry Ø No Ø Spraying D Batch No: B4A047 Fluorescent With: N/A Flooding D Equipment: Parker Research Serial No: 7817 Head Shot Aniones Current (machine setting) AC Ø DC D Adj. Spacing Ø 2-6 inches Endroling Colling - N/A turns Prods. Spacing N/A inches Indication Loc Delemeter Length Type Remarks No. L W W RUL Rel Review No. L W W RUL Rel Review Reference exam Report No: 98-0273 and 98-0274. Results: NAD Ø IND Parcent Of Coverage Oblained > 90%: No Reviewer Previous Data: Yes Examiner Level II Signature Date Signatu											ent	Carlos Contractor Contractor
Component ID:       H-2       Size/Length:       N/A         Limitations:       See attached sheet.       N/A       Iilumination:       N/A       uw/cr         Limitations:       N/A       Serial No.:       N/A       Surface Temp.:       < 600										<u> </u>		
Limitations: See attached sheet.  Limitations: See attached sheet.  Light Meter M(g.:N/ASerial No.:N/AIllumination:N/AW/C  Temp. Tool M(g.:NASerial No.:N/ASurface Temp.:600  Resolution:NASurface Condition:A Welded  Cal Blook Serial No.:NASurface Condition:A Welded  Lo Location:Top Dead CenterField Orientation:Longitudinal  Magnetic Particle Material  Brand:MAMixed: YesApplied By:Spraying Brand:MagnafluxUetNixed: YesApplied By:Spraying Batch No.:B4A047FluorescentWith:N/AFlooding Equipment:Parker ResearchSerial No.:7817Head ShotN/AAmperesFixed SpacingACDCC D CA  Adj.SpacingN/AinchesCurrent (machine setting)N/AMamperes	System ID:	MS		_								
Limitations:       See attached sheet.         Light Meter Mig::       N/A       Serial No.:       N/A       Illumination:       N/A       w//a         Temp. Tool Mig::       N/A       Serial No.:       N/A       Surface Temp.:       < 600	Component	ID: H-2								Size/Length:	t	 VA
Temp. Tool Mig:       NIA       Serial No:       NIA       Surface Temp:       < 600         Resolution:       Not Used       Surface Condition:       As Welded         Cal Block Serial No:       Top Dead Center       Field Orientation:       Longitudinat         Magnetic Particle Material       Brand:       Magnetic Particle Material       Brand:       Magnetic Particle Material         Brand:       Magnetic Particle Material       Brand:       No. 1 Gray       Dry Ø       No Ø       Spraying Ø         Batch No:       84A047       Fluorescent       With:       N/A       Flooding Ø         Equipment:       Parker Research       Serial No:       7817         Head Shot       N/A       Amperes       Fixed Spacing       AC Ø DC 0         Adj: Spacing       Q       2-6       inches       Encircling Colls       N/A       Turns         Prods. Spacing       NA       inches       Current (machine setting)       N/A       Amperes         Indication       Loc       Loc       Diameter       Length       Type       Remarks         No.       L       W       R/L       Reference exam Report No: 98-0273 and 98-0274.       Reviewed Previous Data:       Yes       Zes 1. o. Z         Comment	Limitations:	See a	attached							~		
Temp. Tool Mig:       N/A       Serial No.:       N/A       Surface Temp:       <600         Resolution:       Not Used	Light Mete	er Mfg.:		N/A		Serial	No.:	N/A	and the second secon	Illumination:	N/A	uw/cm
Cal Block Serial No.:       N/A       Surface Condition:       As Welded         Lo Location:       Top Dead Center       Field Orientation:       Longitudinal         Magnetic Particle Material       Brand:       Magnaflux       Wet in Mixed:       Yes in Applied By:       Dusting in Spraying in Sprayi												
Lo Location:       Top Dead Center       Field Orientation:       Longitudinal         Magnafiux       Wet       Mixed:       Yes       Applied By:       Dusting Ø         Brand:       Magnafiux       Wet       Mixed:       Yes       Applied By:       Dusting Ø         Type:       No. 1 Gray       Dry Ø       No Ø       Spraying □         Batch No.:       84A047       Fluorescent □       With:       N/A       Flooding □         Equipment:       Parker Research       Serial No.:       7817         Head Shot	Resolution	n:		Not Us	ed							
Magnetic Particle Material         Brand:       Magnaflux       Wet :       Mixed: Yes :       Applied By:       Dusting Ø         Type:       No. 1 Gray       Dry Ø       No Ø       Spraying :         Batch No:       84A047       Fluorescent :       With:       N/A       Flooding :         Equipment:       Parker Rèsearch       Serial No.:       7817         Head Shot :       N/A       Amperes       Fixed Spacing :       AC Ø DC :         Adj. Spacing Ø       2-6       inches       Encircling Colls :       N/A       Turns         Prods. Spacing Ø       N/A       inches       Current (machine setting) :       N/A       Amperes         Indication       Loc       Diameter       Length       Type       Remarks         No.       L       W       R/L										As Welde	∋d	
Brand:      Magnafiux       Wet □       Mixed: Yes □       Applied By:       Dusting ☑         Type:      No.1 Gray       Dry ☑       No ☑       Spraying □         Batch No.;      84A047       Fluorescent □       With:       N/A       Flooding □         Equipment:      Parker Research       Serial No.:      7817         Head Shot □      NA       Amperes       Fixed Spacing □      AC ☑       DC □         Adj. Spacing ☑      2-6       inches       Encircling Coils				Top Dead	Center		Field Orie	entation:	<del></del> -	Longitudi	nal	
Type:       No. 1 Gray       Dry IZ       No IZ       Spraying ID         Batch No.:       84A047       Fluorescent ID       With:       N/A       Flooding ID         Equipment:       Parker Research       Serial No.:       7817         Head Shot       N/A       Amperes       Fixed Spacing       AC ID       DC ID         Adj. Spacing       Image: Comparison of the comparison of							· · ·	÷.,				
Batch No.:							* *.			Applied By:	D۱	usting 🔽
Equipment:       Parker Research       Serial No.:       7817         Head Shot       N/A       Amperes       Fixed Spacing       AC Ø DC          Adj. Spacing       2 - 6       inches       Encircling Coils       N/A       Turns         Prods. Spacing       N/A       inches       Current (machine setting)       N/A       Amperes         Indication       Loc       Diameter       Length       Type       Remarks         No.       L       W       R/L       Remarks       Indication       Indication       Indication       Indication       Indication       Indication       Indication       Indication       Remarks       Indication       Ind					· · · · · · · · · · · · · · · · · · ·		**			a Aliante da	Spr	aying 🗋
Head Shot      N/A       Amperes       Fixed Spacing      AC ☑ DCAC ☑ DCAdj. Spacing         Adj. Spacing      A       inches       Encircling Coils      ATURNS         Prods. Spacing      N/A       inches       Current (machine setting)      N/A       Amperes         Indication       Loc       Loc       Diameter       Length       Type       Remarks         No.       L       W      R/L											Flo	oding 🗌
Adj. Spacing 2 - 6   inches Encircling Coils   Prods. Spacing N/A   inches Current (machine setting)   Indication Loc   Loc Diameter   Length Type   Remarks   No. L   W R/L     Comments:   Reference exam Report No:   98-0273 and 98-0274.   Results: NAD   Percent Of Coverage Obtained > 90%:   No   Level II   Signature   Caminer   Level II   Signature   Charles   Potter, Michael E.   Image: N/A   Signature   Cotter, Michael E.   Image: N/A   Signature   Cotter   Signature   Cotter </td <td></td> <td>· ·</td> <td></td>											· ·	
Prods. Spacing			•									
Indication       Loc       Loc       Diameter       Length       Type       Remarks         No.       L       W       R/L       Remarks       Remarks         No.       L       W       R/L       Remarks         Comments:       Reference exam Report No: 98-0273 and 98-0274.       Reviewed Previous Data:       Yes         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       Yes         Examiner       Level II       Signature       Date       Signature       Date         Potter, Michael E.       /       M       Yes       Curve 2:21-02         Chier       Level N/A       Signature       Date       ANII Review       Signature       Date         Chier       Level N/A       Signature       Date       ANII Review       Signature       Date		-						-				
No.     L     W     R/L       Comments:     Reference exam Report No: 98-0273 and 98-0274.     Reviewed Previous Data:     Yes       Percent Of Coverage Obtained > 90%:     No     Reviewed Previous Data:     Yes       Examiner     Level II     Signature     Date     Reviewer     Signature     Date       Loredo, Quirino     I     J     Date     Signature     Date     Signature     Date       Loredo, Quirino     I     M     Signature     Date     Signature     Date     Signature     Date       Loredo, Quirino     I     M     Signature     Date     Signature     Signature     Date       Potter, Michael E.     I     M     M     Yes     Signature     Date       Other     Level N/A     Signature     Date     ANII Review     Signature     Date	Prous. Spa					·····	Current	(machine s	etting)	L] <u>N/A</u>	· /	Amperes
Comments:         Reference exam Report No: 98-0273 and 98-0274.         Results:       NAD ☑ IND □         Percent Of Coverage Obtained > 90%:       No         Reviewed Previous Data:       Yes         Examiner       Level II         Signature       Date         Zi9/2002       Halling, David A.         Potter, Michael E.       /         Other       Level N/A	Indication	Loc	Loc	Diameter	Length	Туре			F	Remarks		
Comments:         Reference exam Report No: 98-0273 and 98-0274.         Results:       NAD       IND         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       Yes         Examiner       Level II       Signature       Date       Reviewer       Signature       Date         Loredo, Quirino       I       Signature       Date       Reviewer       Signature       Date         Examiner       Level II       Signature       Date       Site Review       Signature       Date         Potter, Michael E.       I       M.M.       Signature       Date       Site Review       Signature       Low 2.21-0.2         Other       Level N/A       Signature       Date       ANII Review       Signature       Date         Other       Level N/A       Signature       Date       ANII Review       Signature       Date	No.	L	w			R/L						
Comments:         Reference exam Report No: 98-0273 and 98-0274.         Results:       NAD       IND         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       Yes         Examiner       Level II       Signature       Date       Reviewer       Signature       Date         Loredo, Quirino       I       Signature       Date       Reviewer       Signature       Date         Examiner       Level II       Signature       Date       Site Review       Signature       Date         Potter, Michael E.       I       M.M.       Signature       Date       Site Review       Signature       Low 2.21-0.2         Other       Level N/A       Signature       Date       ANII Review       Signature       Date         Other       Level N/A       Signature       Date       ANII Review       Signature       Date												
Comments:         Reference exam Report No: 98-0273 and 98-0274.         Results:       NAD       IND         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       Yes         Examiner       Level II       Signature       Date       Reviewer       Signature       Date         Loredo, Quirino       I       Signature       Date       Reviewer       Signature       Date         Examiner       Level II       Signature       Date       Site Review       Signature       Date         Potter, Michael E.       I       M.M.       Signature       Date       Site Review       Signature       Low 2.21-0.2         Other       Level N/A       Signature       Date       ANII Review       Signature       Date         Other       Level N/A       Signature       Date       ANII Review       Signature       Date												
Comments:         Reference exam Report No: 98-0273 and 98-0274.         Results:       NAD       IND         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       Yes         Examiner       Level II       Signature       Date       Reviewer       Signature       Date         Loredo, Quirino       I       Signature       Date       Reviewer       Signature       Date         Examiner       Level II       Signature       Date       Site Review       Signature       Date         Potter, Michael E.       I       M.M.       Signature       Date       Site Review       Signature       Low 2.21-0.2         Other       Level N/A       Signature       Date       ANII Review       Signature       Date         Other       Level N/A       Signature       Date       ANII Review       Signature       Date			1	1								
Comments:         Reference exam Report No: 98-0273 and 98-0274.         Results:       NAD       IND         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       Yes         Examiner       Level II       Signature       Date       Reviewer       Signature       Date         Loredo, Quirino       I       Signature       Date       Reviewer       Signature       Date         Examiner       Level II       Signature       Date       Site Review       Signature       Date         Potter, Michael E.       I       M.M.       Signature       Date       Site Review       Signature       Low 2.21-0.2         Other       Level N/A       Signature       Date       ANII Review       Signature       Date         Other       Level N/A       Signature       Date       ANII Review       Signature       Date									····			
Reference exam Report No: 98-0273 and 98-0274.         Results:       NAD       IND       IND         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       Yes         Examiner       Level II       Signature       Date       Reviewer       Signature       Date         Loredo, Quirino       I       Signature       Date       Reviewer       Signature       Date         Examiner       Level II       Signature       Date       Site Review       Signature       Low       Z-21-02         Examiner       Level II       Signature       Date       Site Review       Signature       Low       Z-21-02         Examiner       Level II       Signature       Z/9/2002       Wren, Jerry P.       Signature       Low       Z-21-02         Other       Level N/A       Signature       Date       ANII Review       Signature       Low       Z-21-02         Other       Level N/A       Signature       Date       ANII Review       Signature       Low       Z-21-02		•						<u>.</u>				
Results:       NAD       IND       No       Reviewed Previous Data:       Yes         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       Yes         Examiner       Level II       Signature       Date       Reviewer       Signature       Date         Loredo, Quirino       /       ////////////////////////////////////				00.0070	100 0074							
No       Reviewed Previous Data:       Yes         Examiner       Level II       Signature       Date       Reviewer       Signature       Date         Loredo, Quirino       /       /       2/9/2002       Halling, David A.       /       /       /       Z:2/.02         Examiner       Level II       /       /       /       Date       Signature       Date         Potter, Michael E.       / <t< td=""><td></td><td>-</td><td></td><td></td><td>ia 98-0274.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		-			ia 98-0274.							
Examiner       Level II       Signature       Date       Reviewer       Signature       Date         Loredo, Quirino       /       /       2/9/2002       Halling, David A.       /       /       /       /       /       Z:2/.02         Examiner       Level II       /				_	No	-	Boulouton			Vaa		
Loredo, Quirino       I       January Construction       January Construction <td></td> <td>Coverage</td> <td>Obtained</td> <td>- 30 %.</td> <td></td> <td></td> <td>Reviewed</td> <td>i Pievious i</td> <td>Jata:</td> <td>I US</td> <td>nanja. Najko dik da kata dagi kapangarang</td> <td></td>		Coverage	Obtained	- 30 %.			Reviewed	i Pievious i	Jata:	I US	nanja. Najko dik da kata dagi kapangarang	
Examiner     Level II     Signature     I     Date     Site Review     Signature     Low II     Date       Potter, Michael E.     /     ////////////////////////////////////	Examiner Loredo, Qui			Signa	ature			vid A	10	Signature	), ->	1
Potter, Michael E.     I     I/White     2/9/2002     Wren, Jerry P.     I/White     2-21-02       Other     Level N/A     Signature     Date     ANII Review     Signature     Date	Examiner			M. Signa	tufe) //	····				Signature		
Gifter Gi			/	link	. Yoth				5			1
	Other N/A	Level	A/N /	Signa	lture	Date	ANII Review Clow, Ron	1	· · ·	Signature	21	4



## **Determination of Percent Coverage for** Surface Examinations

Site/Unit:	NMC	1	Pl2	Procedure:	ISI-MT-1		Outage No.:	PI2RF:		002	
Summary No.:	500985		85	Procedure Revision/FC:	12	12 /		Report No .:	20	2002M024	
Workscope: _	isi			Work Order No .:	0106946			Page:	2	of	6

Area Required (as shown in applicable code reference drawing)



**Coverage Achieved** 

			813 2	30.02 MCP
Area examined	604.000	sq. in. / Total area required (100%)	-0.000	sq. in.
= Percent coverage	0.835	% (area required - area of limitations	= area examine	d)
- reicencoverage				

To determine length of a circumferential weld

Note - Diameter refers to actual external diameter not pipe size (see table below)

Diameter 0.000 \* (Pi) 3.1416

= Length 0.000 inches

Pipe Size	Actual Diameter	(Length) Circumference	Pipe Size	Actual Diameter	(Length) Circumference
2	2.375	7.46	12	12.75	40.06
2.5	2.875	9.03	14	14.0	43.98
3	3.5	11.0	16	16.0	50.27
3.5	4.0	12.57	18	18.0	56.55
4	4.5	14.14	20	20.0	62.83
5	5.563	17.48	22	22.0	69.12
6	6.625	20.81	24	24.0	75.40
8	8.625	27.10	30	30.0	94.25
10	10.75	33.77	 		······································

Site Field Supervisor:

Amp. Wm Date: 2-21-02

NMC)	- addition
and the second se	

## **Limitation Record**

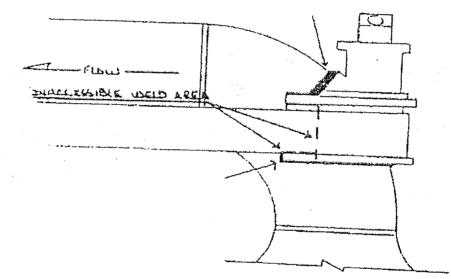
Site/Unit:	NMC	/	PI2	Procedure:		SI-MT	-1	Outage No .:		2RF2	)02
Summary No.:		5009	85	Procedure Revision/FC:	12	1	***	Report No .:		02M(	
Workscope:		ISI		Work Order No.:		010694		Page:	3	of	6

Description of Limitation:

East Side. See supplemental sheets for additional photos.

Sketch of Limitation:

G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL MT\2002m021\_1.bmp



Limitations removal requirements: N/A

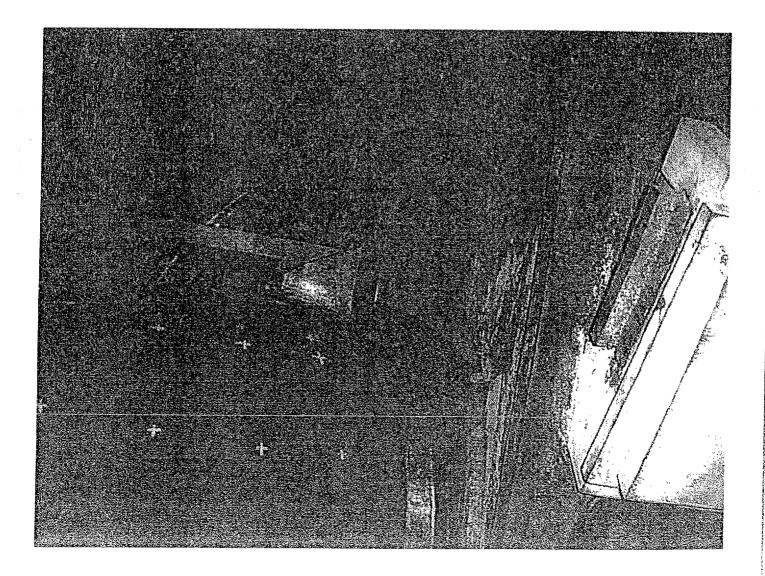
Radiation field: N/A

Examiner	Level	11	Signature	Date	Reviewer	Signature	Date
Loredo, Qu	uirino		1 P. Land	2/9/2002	Halling, David A.	1 Ofthelle	2-21-02
Examiner	Level	11	Asignature 11	Date	Site Review	Signature	Date
Potter, Mic	hael E.		1 Minsel Tothe	2/9/2002	Wren, Jerry P.	1 Acm P. Um	2-21-02
Other	Level	N/A	Signature	Date	ANII Review	Signature	Date
N/A			1		Clow, Ron	100	2/21/02

	à	Supplemental Report										
* 1010.05	<i>V</i>					Report No.:	2(	002M0	24			
						Page:	4	of	6			
Summary No.:	500985						<u></u>					
Examiner:	Loredo, Quirino	Level:		Reviewer:	Halling, David A.		Date:	2-21	.02			
Examiner:	Potter, Michael E.	Level:		Site Review:	Wren, Jerry P.		Date:	2-2	1-02			
Other:	N/A	Level:	<u>N/A</u>	ANII Review:	Clow, Ron		Date:	2/21	102			

Comments: Top View (Looking Down).

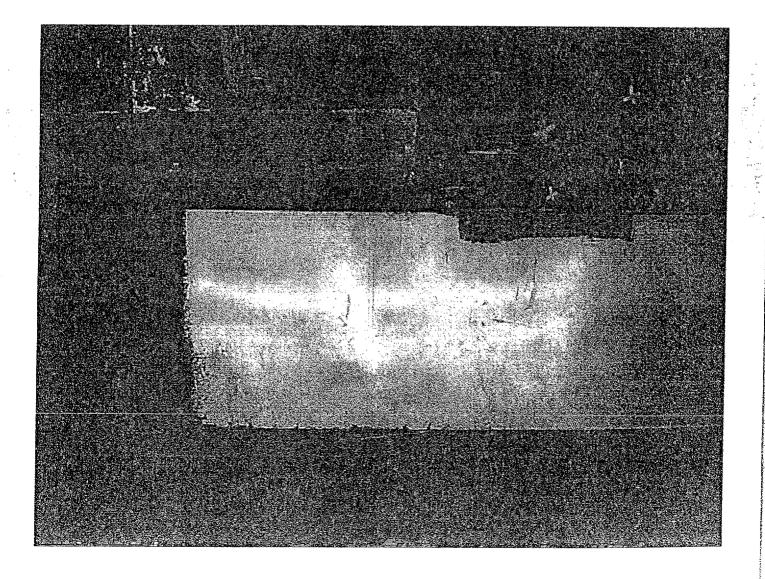
Sketch or Photo: G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL MT\2002m024\_2.bmp



		Supplemental Report									
						Report No.:	2	002M(	124		
						Page:	5	of	6		
Summary No.:	500985										
Examiner:	Loredo, Quirino	_ Level:		Reviewer:	Halling, David A.		Date:	2-2	1-02		
Examiner:	Potter, Michael E.	Level:	11	Site Review:	Wren, Jerry P.	······································	Date:	2-2	1-02		
Other:	N/A	_ Level:	N/A	ANII Review:	Clow, Ron		Date:	2/2	102		

Comments: Side View.

Sketch or Photo: G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL MT\2002m024\_3.bmp



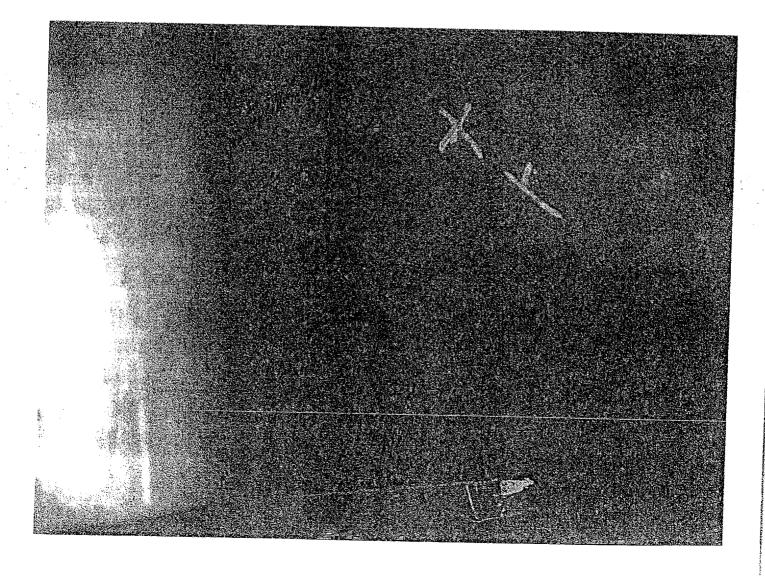


# Supplemental Report

Summary No.: 500985	t No.:	20	02M0	24
	age:	6	of .	6
Examiner: Loredo, Quirino Level: II Reviewer: Halling, David A.		Dates	<b>.</b>	
Examiner: Potter, Michael E. Level: II Site Review: Wren, Jerry P.		Date: -		-02 1-07
Other: N/A Level: N/A ANII Review: Clow, Ron		Date: _		

Comments: Inaccessible Weld.

Sketch or Photo: G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL MT\2002m024\_4.bmp





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# **Magnetic Particle Examination**

Site/Unit:	NMC	/ PI:	2	Proce	edure:	ISI-M	r-1	Outage No	.:	PI2RF2002	
Summary No.:		500988		rocedure Re	v/FC:	12 /	***	Report No	.:	2002M021	
Workscope:		ISI		Work Orde	r No.:	01069	46	Page	: 1	of 6	
Code:			Code C	Cat.: C	-C	Location:	*******	Containr	nent		
Drawing No.:					n: Seismic I						*****
System ID: M	5										
Component ID: H-	3							Size/Length:		N/A	
Limitations: Se	e attached	i shoote									
Light Meter Mig.:	*****				No.:			Illumination:			
Temp. Tool Mfg.:				Serial				Surface Temp.:		······	
Resolution:											
Cal Block Serial N	lo.:				Surface C	ondition:		As Weld	ed		
	Lo Location: <u>Top Dead Center</u>				Field Orie	entation:		Longitud	inał		
Magnetic Particle											
Brand:			·····	Wet 🗌	Mixed:	Yes [	]	Applied By:		Dusting 🗹	
Type:				Dry 🗹		No 🗹	1	•	Ę	Spraying 🗌	
Batch No.:	84A(	047	Fluc	prescent 🗆	With:		N/A		I	=looding 🗌	
Equipment:						·····	Serial No.:		7817		~
·		N/A			Fixed Sp	pacing			AC 🔽		
Adj.Spacing		2-6	-		Encirclin	g Coils		N/A Te	irns		
Prods. Spacing	]	<u>N/A</u>	inches		Current	(machine	setting)	N/A		Amperes	
Indication Loc	Loc	Diameter	Length	Туре			Re	imarks			٦
Ňo. L	w			R/L							
										· · · · · · · · · · · · · · · · · · ·	-
		+									$\neg$
						······			<u> </u>		_
		<u>                                      </u>						~			
											7
Comments:						*******					1
Reference exam R		98-0273 an	d 98-0274.								
Results: N/	0	IND 🗌		-				****		*******	
Percent Of Coverag	e Obtained	> 90%:	No		Reviewed	Previous	Data:	Yes			
Examiner Level	11	Signa	ture	Date	Reviewer		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Signature		Date	1
Thomas, Travis	/	drawhon		2/16/2002	Halling, Dav	/id A.	14	A. B. Ul	ż.	2.51-02	
Examiner Level Potter, Michael E.	li /	Sigha	we lit		Site Review	- n	$\sim$	Signature		Date	
Other Level		Signal	UTO UTO		Wren, Jerry ANII Review			Signature	- 2-	-ZI-17Z Date	
N/A	/			4	Clow, Ron		1 F		2	121/02	



### Determination of Percent Coverage for Surface Examinations

Site/Unit:	NMC	1	PI2	Procedure:	1	SI-MT-1		Outage No.:			02
Summary No.:		50098	8	Procedure Revision/FC:	12	1	***	Report No .:	20	02M0	21
Workscope:		ISI		Work Order No.:		106946		Page:	2	of	6
L	red (as : .ength : Total Ai	يد 	2/91 ~. <u>2.000</u> ired	ode reference drawing) 20-07- ハーマ コ.ロイス.c * Width <u>0.000</u> * Width <u>0.000</u> square inches	2.2ª. m.?	oî				****	
	chieved Area exa Percent c		<u> </u>	<ul> <li>% (area required -</li> </ul>			) (  = area exa	or sq. in.			

#### To determine length of a circumferential weld

Note - Diameter refers to actual external diameter not pipe size (see table below)

Diameter	0.000	*	(Pi)	3.1416
----------	-------	---	------	--------

= Length 0.000 inches

Pipe Size	Actual Diameter	(Length) Circumference	Pipe Size	Actual Diameter	(Length) Circumference
2	2.375	7.46	12	12.75	40.06
2.5	2.875	9.03	14	14.0	43.98
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3.5	4.0	12.57	18	18.0	56.55
4	4.5	14.14	20	20.0	62.83
5	5.563	17.48	22	22.0	69.12
6	6.625	20.81	24	24.0	75.40
8	8.625	27.10	30	30.0	94.25
10	10.75	33.77			

Site Field Supervisor:

Amp. Wh

Date: 2-21-0 2



### Limitation Record

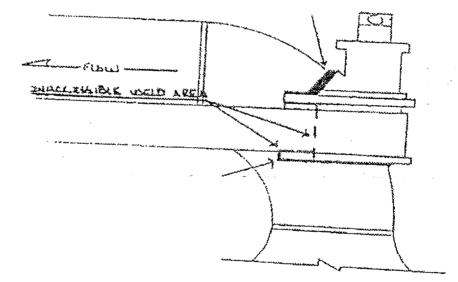
Site/Unit:	NMC	/	P12	Procedure:	iure: ISI-MT-1		Outage No.:				
Summary No.:	500988			Procedure Revision/FC:	12	12 /		Report No.:	20(	2002M021	
Workscope:	151			Work Order No.:	0106946		••	Page:	3 of 6		6

Description of Limitation:

East Side. See supplemental sheets for additional photos.

Sketch of Limitation:

G:\IDDEAL50\P!2RFO2002\SUPPLEMENTAL MT\2002m021\_1.bmp



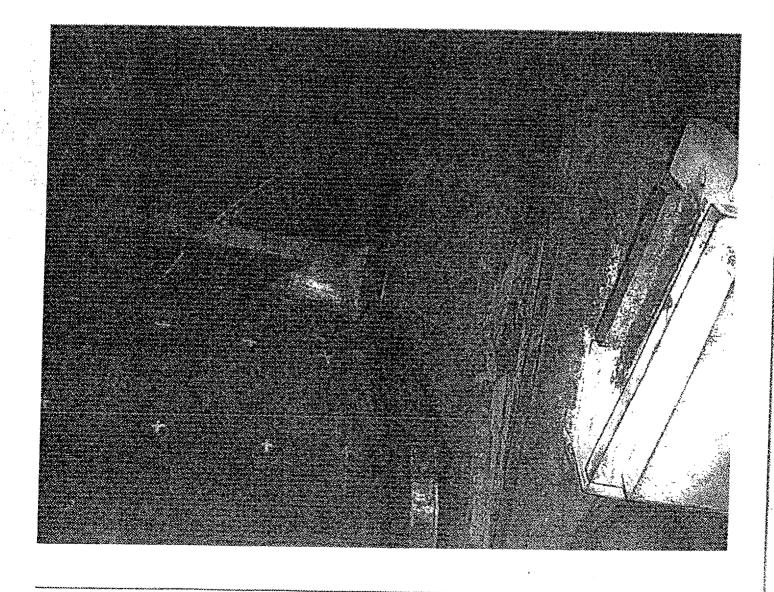
Limitations removal requirements: N/A

			·				
Examiner	Level	11	Signature	Date	Reviewer	Signature	Date
Thomas, T	ravis	1	As Open-	2/16/2002	Halling, David A.	1 ) the li	2.20.02
Examiner	Lavel	11	A. / Signatune,	Date	Site Review	Signature	Date
Potter, Mic	hael E.	/	Miles Sites	2/16/2002	Wren, Jerry P.		- 2-21-0L
Other	Level	N/A	Signature	Date	ANI! Review	. Signature	Date
N/A		1	······································		Clow, Ron	1 A.C.	2/21/02

NINC	Supplemental Report	al Report									
- Martin		Report No.:	2002M021								
Summary No.: 500988		Page:	4 of6								
Examiner: Thomas, Travis	Level: Reviewer: Halling, David A.		Date: 2-20-02								
Examiner: Potter, Michael E.	Level: II Site Review: Wren, Jerry P.		Date: 2-21-0 2								
Other: <u>N/A</u>	Level: N/A ANII Review: Clow, Ron		Date: 2/21/02								

Comments: Top View (Looking Down).

Sketch or Photo: G:\/DDEAL50\Pi2RFO2002\SUPPLEMENTAL MT\2002m024\_2.bmp



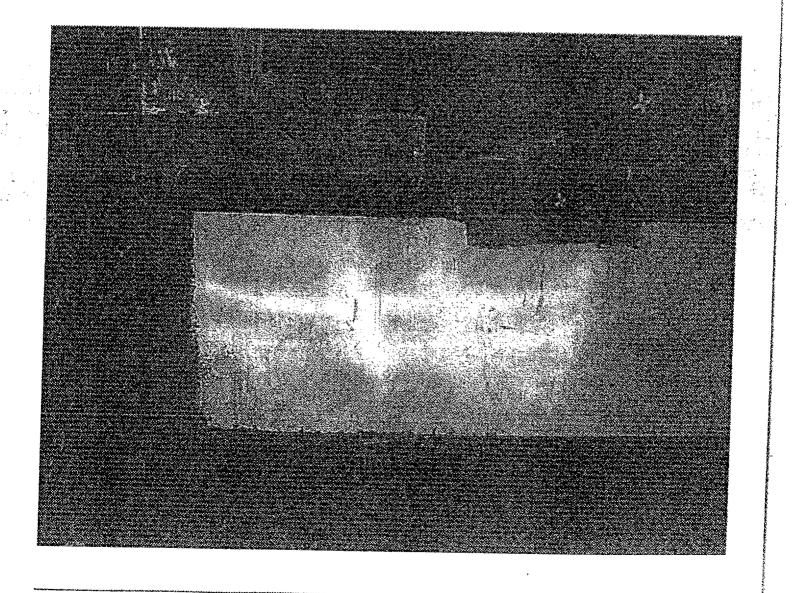


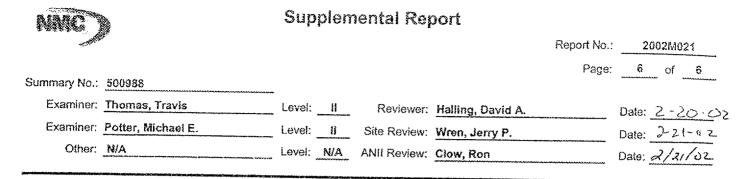
# Supplemental Report

100 C					Report No.:	2002	M021
Summary No.:	500988				Page:	c	6 <u>6</u>
Examiner:	Thomas, Travis	Level: <u>II</u>	Reviewer:	Halling, David A.		Date: 2.	20.07
Examiner:	Potter, Michael E.	Level: II		Wren, Jerry P.			-21-52
Other:	N/A	Level: <u>N/A</u>	ANII Review:	Clow, Ron		Date: 2/	a successive designed as a successive

Comments: Side View.

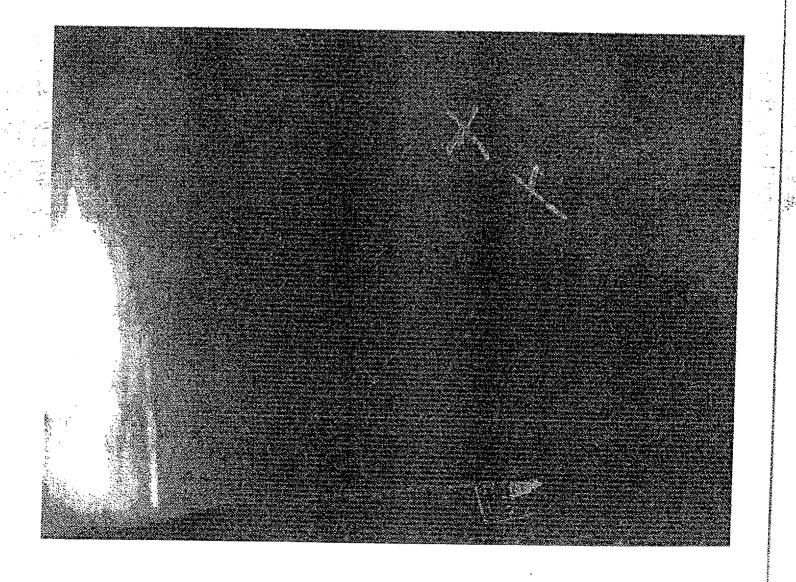
Sketch or Photo: G:\IDDEAL50\Pi2RFO2002\SUPPLEMENTAL MT\2002m024\_3.5mp





Comments: Inaccessible Weld.

Sketch or Photo: G:\IDDEAL50\PI2RF02002\SUPPLEMENTAL MT\2002m024\_4.bmp



NINE D						U	IT Pipe Wel	ld Exam	ination			
	e/Unit: _	NMC	1	PI2			Pro	cedure:	ISI-UT-1	6A	Outage No.:	PI2RF2002
Summar			5002	51			Procedure Revis	sion/FC;	1 /		Report No.:	2002U036
Works	scope: _		ISI				Work Ore	der No.:	010694	6	Page: 1	of
Code:		1989		NA-101	(	Code Cat.:	C-F-1		Location	e e	Containment	nan an
Drawing No.:	******		2-151	- 72	······································	·	Description: P	ipe to Valve	2		****	
System ID: 5	SI											en e
Component ID: V	N-17								Size/Length:	1.0" / 21.0"	Thickness/Diameter:	.740" / 8.0"
Limitations: <u>S</u>	Single si	de acce	∋ss due	to con	iguration.	See attac	hed sheets.		S		0935 925 Finish Time: 2-18-02	1000
Examination Su	rface:	Insid	e 📋	Ou	tside 🖌		Surface Cond	ition: Flat T	opped		an dan dipan kerinduk diban disela 1911. Dan merupakan yang dan dipan dipan ber	9999-9999-9999-9999-9999-9999-9999-9999-9999
Lo Location:	To	p Deac	l Center	ŕ	Wo Loca	ation:	Centerline of V	Veld	Couplant:	Sonotrace 4	Batch No.:	#00143
Temp. Tool Mfg		Tela	atemp		Seria	l No.:	NSP 185		Surface Temp	.:80'	, E	
Cal. Sheet No.:				·····	2002C	A071, 200	2CA072					
Angle Used	0	45	45T	60			]					
Scanning dB	N/A	41.8	41.8	66.8			1					
Indication(s):	Yes 门	No	2			Sca	n Coverage: Up	stream 🖌	Downstream [	Cw 🗹	CCW 🖌	
Comments:							<b>U</b> 1					
See Limitation	Sheet.											
Results:					GEO 🗂							
Percent Of Cove	erage Obt	tained >	90%:		No		Reviewed Previou	s Data:	-Ne- Y	ES 2-19-02		
	evel II			7	Signatura	2	Date	Reviewer		×	Signature	Date
Timm, Jeremy T		1		60-	E Cos	<u></u>		Clay, Sean		· Duig	Le LITT	2-18-02
Examiner Le Griebel, David N	evel II A.	1	10-	1 m	Signature			Site Review Wren, Jerr		Sr.	Signature	Date
Other Le	evel N/A		·····		Signature			ANII Review		- Jun	-Signature	2-18-0 Z
N/A		/						Clow, Ron		ICE		2/19/02

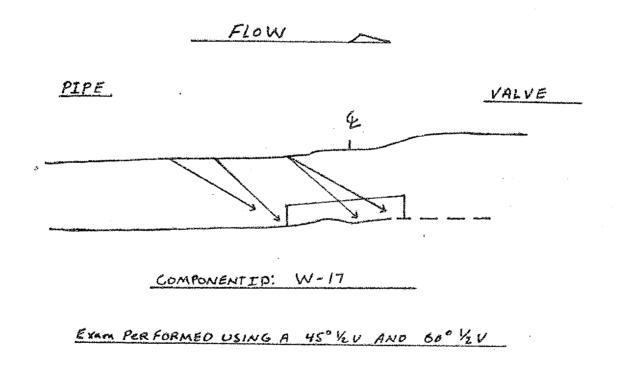
NINC	Limitation Record										
Site/Unit:	NMC	/	Pl2	Procedure:	19	I-UT-1	6A	Outage No.:	PC	2RF2(	02
Summary No.:		5002	.51	Procedure Revision/FC:	1	1		Report No.:	20	02U0	36
Workscope:		ISI	l	Work Order No.:		)10694	6	Page:	2	of	3

Description of Limitation:

Single sided exam - Although the exam was performed through 100% of the code required volume. Procedure ISI-UT-16A is not qualified for the detection of flaws on the far side of single side access exams. The techniques provided by this procedure were used for a best effort exam for flaws on the far side of the weld.

Sketch of Limitation:

G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL UT\2002u036\_1.bmp



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Limitations removal requirements: N/A

and a second		and the second secon					
Examiner	Level	11	Signature	Date	Reviewer	Şignature	Date
Timm, Jere	my T.	1	m	2/14/2002	Clay, Sean P.	IT Stuffe 10 III	02-18-02
Examiner	Level	1	Signature	Date	Site Review	Signature	Date
Griebel, Da	vid M.	1	Wint	2/14/2002	Wren, Jerry P.	Murken	2-19-02
Other	Level	N/A	Signature	Date	ANII Review	Signature	Date
N/A		1			Clow, Ron	1 Kel	2/19/02



## **Determination of Percent Coverage for UT Examinations - Pipe**

Site/Unit:	NMC /		Pl2	**************************************			ISI-UT-16A	Outage	No.: PI2RF2002
ummary No.:	5	0025 <sup>.</sup>	1	Procedu	re Revisio	m/FC:	1 /	Report	No.: 2002U036
Workscope: _		ISI		V	Vork Orde	er No.:	0106946	P.	age: <u>3</u> of
<u>45 deg</u>									
Scan 1	100.0	00	% Lengti	nX	50.000	% volu	me of length / $100 =$	50.000	% total for Scan
Scan 2	100.0	00	% Lengtl	۱X	50.000	% volu	me of length / 100 =	50.000	% total for Scan 2
Scan 3	100.0	00	% Length	۱X	50.000	% volu	me of length / 100 =	50.000	% total for Scan 3
		• •	0/ 1	V 6	50.000	% volu	me of length / 100 =	50.000	% total for Scan 4
Scan 4	100.0 Add totals		% Length			0% tot	al for 45 deg		
						0 % tot	al for 45 deg		
			divide by #	scans =	50.00		al for 45 deg		
<u>Other deg</u>	Add totals	and	divide by # (to be use	scans = d for supp	50.00	scans)			
<u>Other deg</u>	Add totals	and	divide by # (to be use	scans = d for supp	50.00	scans)	al for 45 deg ith the 45 deg scans.		
<u>Other deg</u>	Add totals	belov	divide by # (to be use v is for cove	scans = d for supp	50.00	scans) btained w		0.000	% total for Scan
<u>Other deg</u> The data to	Add totals	belov	divide by # (to be use v is for cove	t for supp	50.00	scans) btained w	ith the 45 deg scans.		
<u>Other deg</u> The data to Scan 1	Add totals - <u>6(</u> b be listed 0.00	belov	divide by # (to be use v is for cove % Lengt % Lengt	th X	50.00	scans) btained w % volu % volu	ith the 45 deg scans. ume of length / 100 =	0.000	% total for Scan
<u>Other deg</u> The data to Scan 1 Scan 2	Add totals - <u>6(</u> ) be listed 0.00 0.00	s and belov 0 0	divide by # (to be use v is for cover % Lengt % Lengt	d for supp rage that the the the the the the the the the th	50.00 blemental was not of 0.000 0.000	scans) btained wi % volu % volu % volu	ith the 45 deg scans. ume of length / 100 = ume of length / 100 =	0.000	% total for Scan % total for Scan % total for Scan % total for Scan

#### Percent complete coverage

Add totals for each scan required and divide by # of scans to determine;

50.000 % Total for complete exam

Site Field Supervisor: \_\_\_\_\_\_ Date: \_\_\_\_\_ Date: \_\_\_\_\_ Date: \_\_\_\_\_

# UT Pipe Weld Examination

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and a second process process process of the second proces of the second process of the s

Summ	Site/Unit: hary No.: rkscope:		912 502388 ISI			Procedure Revisi Work Ord	on/FC:	1 /	<u></u>		tage No.: port No.: Page:1	PI2RF: 2002U		_
Drawing No.: System ID:	SI	1989	2-ISI- 70	Co	ode Cat.:	C-F-1 Description: <u>V</u> a		Location:		Con	Itainment			
Component ID: Limitations:		ide acces	s due to cor	figuration. S	See attacl	ned sheets.		Size/Length:Sta	1.0" / 21.0" rt Time:	Thickn 0800	ess/Diameter Finish Time	**************************************	0" / 8.0" 0830	
Examination 8	Surface:	Inside	01	utside 🔽		Surface Condit	tion: Flat To	opped						,
Lo Location:	<u> </u>	op Dead C	enter	_ Wo Locat	ion:	Centerline of W	eld	Couplant:	Sonotrace	<u>40</u>	Batch No.: _	#	00143	•
Temp. Tool M	lfg.:	Telate	emp	Serial N	No.:	NSP 185	······································	Surface Temp.:	80	٩°	_			•
Cal. Sheet No	).;		<b>.</b>		071, 2002			-						
Angle Used Scanning dB Indication(s): Comments: See Limitatio	<u></u>	41.8	45T 60 41.8 66.8		Scar	n Coverage: Ups	stream []	Downstream 🗹	cw 🗹	ccw 🗹	]			
Results:				GEO 📑				•						
Percent Of Co	verage Ob	stained > 9	0%:	No	F	Reviewed Previous	Data:	-No- YES	2-19-02					
Timm, Jeremy Examiner Griebel, David	Level II I M.	1 2	$\langle   \rangle$	Signature Signature	/	2/14/2002	Site Review	······	1 Den	Signatu	L. III		Date 18-02 Date 19-02	
Other N/A	Level N/	A		Signature /		Date /	ANII Review Clow, Ron		100	Signatu	c .		Date Date	9

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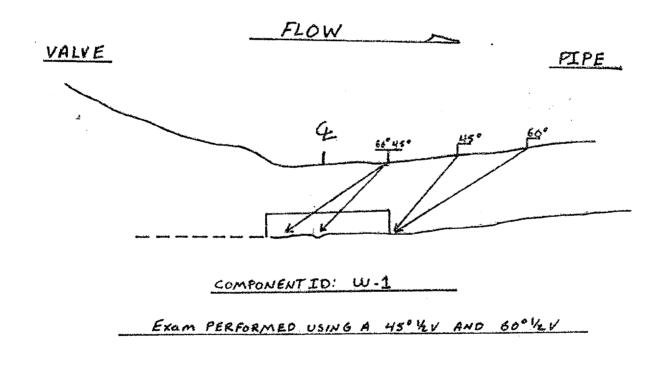
NINCO				Limitation Rec	cord						
Site/Unit:	NMC	ł	Pl2	Procedure:	IS	i-UT-1	6A	Outage No.:	PI	2RF2(	02
Summary No.:		5023	88	Procedure Revision/FC:	1	F		Report No.:	20	0200	37
Workscope:		IS		Work Order No.:	(	010694	16	Page:	2	of	3

Description of Limitation:

Single sided exam - Although the exam was performed through 100% of the code required volume. Procedure ISI-UT-16A is not qualified for the detection of flaws on the far side of single side access exams. The techniques provided by this procedure were used for a best effort exam for flaws on the far side of the weld.

Sketch of Limitation:

G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL UT\2002u037\_1.bmp



Limitations removal requirements:

N/A

Examiner Timm, Jerem	Level y <b>T.</b>	II /	Signature		Reviewer Clay, Sean P.	Signature Date
Examiner Griebel, David	Level	H /	Signature	Date	Site Review Wren, Jerry P.	Signature Date
Other N/A	Level	N/A /	Signature		ANII Review Clow, Ron	Signature Date



## Determination of Percent Coverage for UT Examinations - Pipe

502388 ISI	8 Proc	edure Revision/F		Report I	No.: 2002U03
ISI		Mark Order M	0400040	Dr	
n an ann an Anna Anna A		Work Order N	o.: 0106946		age: <u>3</u> of
	CC6877777777777777777777777777777777777		na kanalik tanàna nyanya mina danàna mina dang mangkana amin'nya kanana mina dia kaominina	ar an	
100.000	% Length X	50.000	% volume of length / 100 =	50.000	% total for Scar
100.000	% Length X	50.000	% volume of length / 100 = _	50.000	% total for Scar
100.000	% Length X	50.000	% volume of length / 100 =	<b>50.0</b> 00	% total for Scan
100.000	% Length X	50.000	% volume of length / 100 = _	50.000	% total for Scan
	divide by # scan		% total for 45 deg		
60	(to be used for s	supplemental sca			•
60	(to be used for s	supplemental sca	ans)		•
60	(to be used for s	supplemental sca hat was not obtai	ans)	0.000	% total for Sca
60 be listed below	(to be used for s v is for coverage t	supplemental sca hat was not obtai 0.000	ans) ined with the 45 deg scans.		% total for Sca
60 e listed below 0.000	(to be used for s v is for coverage the second seco	supplemental sca hat was not obtai 0.000 0.000	ans) ined with the 45 deg scans. % volume of length / 100 =	0.000	
60 e listed below 0.000 0.000	(to be used for s v is for coverage to % Length X % Length X	supplemental sca hat was not obtai 0.000 0.000 0.000	ans) ined with the 45 deg scans. % volume of length / 100 = % volume of length / 100 =	0.000	% total for Sca
	100.000 100.000	100.000 % Length X	100.000         % Length X         50.000           100.000         % Length X         50.000	100.000         % Length X         50.000         % volume of length / 100 =           100.000         % Length X         50.000         % volume of length / 100 =	100.000         % Length X         50.000         % volume of length / 100 =         50.000           100.000         % Length X         50.000         % volume of length / 100 =         50.000

Add totals for each scan required and divide by # of scans to determine;

50.000 % Total for complete exam

Site Field Supervisor:	
------------------------	--

Date: 2-19-02

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n nava dente tatte .	199
فليسب سربر	

# UT Pipe Weld Examination

Summ	Site/Unit: ary No.: *kscope:		/ 5021 ISI				Procedure Revi	ocedure: ision/FC: rder No.:	ISI-UT-16 1 / 0106946				PI2RF2 2002U0 of	
Code: Drawing No.: System ID:	RH	1989	2-151	- 51	C	Code Cat.:			Location:		B	RHR Pit		
Component ID: Limitations:	W-18/L		No scar	ns dow	nstream of	weld - 18.		Netter constant and a second	Size/Length:	12" art Time:	Thick 1200	ness/Diameter: Finish Time:	<b></b>	375" 220
Examination S		Insid Top Dead	le 🛄 d Center		itside 🔽 _ Wo Loca	ation:	Surface Con Centerline of		elded Couplant:	Sonotrad	:e 40	Batch No.:	#0	0143
Temp. Tool M Cal. Sheet No		Tel	atemp	<u> </u>	10.00 Marea	No.:	NSP 162	Marin's Sta Gran Andrewski, drywyna	Surface Temp.	80	°F			
Angle Used Scanning dB Indication(s):	Yes	47.0	45T	60	70 55.0		n Coverage: U	pstream 🗹	Downstream	] cw 🖉	] ccw	2		
Comments: Single sided of flaws on th far side of th Results:		75% total				formed thr le techniq	ough 100% of t ues provided by	he code requ / this proced	uired volume. P lure were used	rocedure IS for a BEST	I-UT-16A is EFFORT EX	not qualified f AMINATION fo	or the c r flaws	letection on the
Percent Of Co	verage (	Obtained >	<b>&gt;</b> 90%:	·	No	 F	Reviewed Previo	us Data:	N/A					
Johnson, Jeffi Examiner Griebel, David	Level I	/	J.Z	T	Signature Signature Signature	/	1/30/2002 Date	Reviewer Clay, Sean Site Review Wren, Jerry ANII Review Clow, Ron	/ P.	1	Signat LHPU Signat		- 7	Date <u>2-05-02</u> Date <u>-5-02</u> Date 8/02

NING		Limitation Record									
Site/Unit:	NMC	1	Pi2	Procedure:	15	5I-UT-1	6A	Outage No.:	PI	2RF20	02
Summary No.:		5021	47	Procedure Revision/FC:	1	1		Report No.:	2(	00200	01
Workscope:		ISI	[	Work Order No.:		010694	6	Page:	2	of	3
										a a constant	

Description of Limitation:

Axial examination performed from the pipe side only due to Pipe to Flange configuration.

Sketch of Limitation:

G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL UT\2002u001\_1.bmp

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45 £ 45:60:70. 45-60-70

j .

WELD W-18/LSU

Limitations removal requirements: ۰.

None

#### Radiation field:

					t		
Examiner	Level II	Signature	Date	Reviewer	1	Signature ,	Date
Johnson, Jo	effrey M. /	Implan	1/30/2002	Clay, Sean P.	1	Atta 1	2.05-02
Examiner	Level II	/ Aigpature	Date	Site Review		Signature	Date
Griebel, Dav	vid M. /	20-1	1/30/2002	Wren, Jerry P.	$\rightarrow$	Jast. Wh	2-5-02
Other	Level N/A	Signature	Date	ANII Review	$\overline{\mathcal{D}}$	Signature	Date
N/A	1		2	Clow, Ron	16	J.C.C.	218/02



## Determination of Percent Coverage for UT Examinations - Pipe

Site/Unit:	NMC /	PI2	Proced	lure: ISI-UT-16A	Outage	No.: PI2RF2002
mmary No.: _	50214	7 Proc	edure Revision	/FC: <u>1 /</u>	Report	No.: 2002U001
Norkscope: _	iSI		Work Order	No.: 0106946	Pa	age: <u>3</u> of <u>3</u>
alminingi di di si dan Sanada pa		ihadonini 17 i camar da minang ng mga ka			an i fair a gu ann an	
<u>45 deg</u>						
Scan 1	100.000	% Length X	0.000	% volume of length / 100 =	0.000	% total for Scan 1
Scan 2	100.000	% Length X	0.000	% volume of length / 100 =	0.000	% total for Scan 2
Scan 3	100.000	% Length X	100.000	% volume of length / 100 =	100.000	% total for Scan 3
Scan 4	100.000	% Length X	100.000	% volume of length / 100 =	100.000	% total for Scan 4
	Add totals and	divide by # scar	ns = 50.000	% total for 45 deg		
		-				
<u>Other dea</u>	- 70	(to be used for	supplemental so	cans)		
The data to	be listed below	/ is for coverage t	hat was not obt	ained with the 45 deg scans.		
Scan 1	100.000	% Length X _	50.000	_ % volume of length / 100 = _	50.000	% total for Scan 1
Scan 2	100.000	% Length X	50.000	% volume of length / 100 =	50.000	% total for Scan 2
Scan 3						
Scan 4		_				% total for Scan 4
-						
			1			
;			i			
Percent co	mplete coverad	đē				
Add totals for	or each scan red	quired and divide	by # of scens to	determine:		
75.000	% Total for co		,	· -,		
10.005	70 10 cai 101 00					
		••••				
				一山、西		
Site Field S	upervisor: <b>Jer</b> r	C	Fin Pill	U.T.T. Date: <u>2</u> -	5-02	



# UT Pipe Weld Examination

Summary N Workscop Code: Drawing No.:	be: ISI	2 Code C	Procedure: Procedure Revision/FC: Work Order No.: at.: <u>C-F-1</u> Description: Valve to R	1 / 0106946 Location:	Report No.: Page: _1	PI2RF2002 2002U028 
	le sided exam.			Size/Length:1.0" / 2 Start Time:	****************	
Examination Surfac Lo Location: Temp. Tool Mfg.: _ Cal. Sheet No.:	Top Dead Center		Surface Condition: <u>Gro</u> Centerline of Weld NSP 185 2002CA054	_ Couplant:Sonot		#00143
Indication(s): Ye	0 45 45T 60 V/A 43.4 43.4 69. ≥S No ✔ valve configuration.	2	Scan Coverage: Upstream	Downstream 🗹 CW	v 🗹 ccw 🗹	
Results: NAD		GEO 🗋 No	Reviewed Previous Data:	Yes		
Examiner Level Griebel, David M. Examiner Level Timm, Jeremy T. Other Level N/A	1 / m.	Signature Signature Signature	Date Reviewer 2/14/2002 Clay, Sea Date Site Revi 2/14/2002 Wren, Je Date ANII Revi Clow, Reviewer	an P. /	Signature	Date <u>J-18-02</u> Date <u>J-19-c 7</u> Date 2/19/02

NMC Limitation Record											
Site/Unit:	NMC	/	P12	Procedure:	IS	SI-UT-1	6A	Outage No.:	Pl	2RF2(	002
Summary No.:		5023	372	Procedure Revision/FC:	1	/		Report No.:	20	02U0	28
Workscope:		IS	!	Work Order No.:		010694	6	Page:	2	of	3

Description of Limitation:

Single sided exam - Although the examination was performed through 100% of the code required volume. Procedure ISI-UT-16A is not qualified for the detection of flaws on the far side of single side access exams. The techniques provided by this procedure were used for a best effort exam for flaws on the far side of the weld.

Sketch of Limitation:

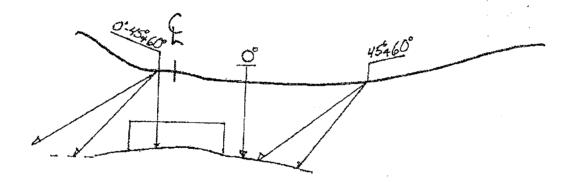
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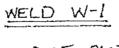
.

G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL UT\2002u028\_1.bmp

VALVE

FLOW





COVERAGE PLOT

Limitations removal requirements: N/A .

	/		
Examiner Level II	Signature Date	Reviewer	Signature Date
Griebel, David M. /	2/14/2002	Clay, Sean P. /	Augue LIT 02:10-02
Examiner Level II	Signatura Date	Site Review	Signature, Date
Timm, Jeremy T. /	2/14/2002	Wren, Jerry P.	Au P.Um 2-19-02
Other Level N/A	Signature Date	ANII Review	Signature Date
N/A /		Clow, Ron /	KU = 2/19/02



## **Determination of Percent Coverage for UT Examinations - Pipe**

Site/Unit:	t: <u>NMC / P12</u>		Proced	ure: ISI-UT-16A	Outage	No.: PI2RF2002
Summary No.:	50237	2 Pro	cedure Revision	/FC: <u>1 /</u>	Report	No.: 2002U028
Workscope:	ISI	·····	Work Order	No.: 0106946	Pa	age: <u>3</u> of <u>3</u>
						and a second
45 deg						
Scan 1	100.000	% Length X	50.000	% volume of length / 100 =	50.000	% total for Scan 1
Scan 2	100.000	% Length X	50.000	% volume of length / 100 =	50.000	% total for Scan 2
Scan 3	100.000	% Length X	50.000	% volume of length / 100 =	50.000	% total for Scan 3
Scan 4	100.000	% Length X	50.000	% volume of length / 100 =	50.000	% total for Scan 4
					.*	
<u>Other deg</u> The data to			supplemental so that was not obt	ans) ained with the 45 deg scans		
Scan 1	0.000	% Length X	0.000	_ % volume of length / 100 =	= 0.000	% total for Scan 1
Scan 2	0.000	% Length X	0.000	_ % volume of length / 100 =	= 0.000	% total for Scan 2
Scan 3	0.000	% Length X	0.000	% volume of length / 100 =	- 0.000	% total for Scan 3
Scan 4	0.000	% Length X	0.000	_ % volume of length / 100 =	0.000	% total for Scan 4
					-	

#### Percent complete coverage

Add totals for each scan required and divide by # of scans to determine;

50.000 % Total for complete exam

Site Field Supervisor: \_\_\_\_\_\_ P.W.\_\_\_ Date: \_\_\_\_\_ Date: \_\_\_\_\_

+.

			UT Pipe Wel	d Examinatior	l	
Summary No.:		P12		edure: ISI-L		Outage No.: PI2RF2002 Report No.: 2002U026
Workscope:	<u>ISI</u>		Work Ord	er No.: 010	6946	Page: 1 of 3
Code: Drawing No.: System ID: RH	1989 2-ISI-		Cat.: <u>C-F-1</u> Description: <u>V</u> a	Loca	tion:	Containment
Component ID: W- 5/L: Limitations: See Co	SD omments.			Size/Leng	th: / 27.0" Start Time:13	Thickness/Diameter:         .8" / 10"           50         Finish Time:         1430
Examination Surface:	Inside	Outside 🔽	Surface Condit		Sonotrace 40	Batch No.: #00143
Temp. Tool Mfg.: Cal. Sheet No.:	Telatemp		NSP 185	Surface T	emp.: <u>90</u> °	F
Angle Used     0       Scanning dB     N/A       Indication(s):     Yes       Comments:     See Limitation Record	A 43.4 43.4	60 N/A	Scan Coverage: Ups	stream 🗋 🛛 Downstre	am 🗹 CW 🗹	ccw 🗹
Results: NAD		GEO	Reviewed Previous	s Data: Yes	·····	
Examiner Level II Griebel, David M. Examiner Level II Timm, Jeremy T.	1	Signature Signature	2/13/2002 Date	Reviewer Clay, Sean P. Site Review Wren, Jerry P.	First ,	Signature D Signature D Signature D -440 - 2-19-07
Other Level N N/A	NA I	Signature	Date	ANII Review Clow, Ron	, PL	Signature $D$

a han hanna ann a' san a' san a' san ag Mill ag da Milling a 's common a' san 's com ais l'fhillanna an allaman ag san ag a san ai san a' san

Sec. 1

NNE	Limitation Record									
Site/Unit:	NMC	1	PI2	Procedure:	18	SI-UT-1	6A	Outage No.:	PI2RF2002	
Summary No.:		5023	92	Procedure Revision/FC:	1	1		Report No.:	2002U026	
Workscope:		IS	l	Work Order No.:	(	010694	6	Page:	2 of 3	

Description of Limitation:

Single sided exam - Although the examination was performed through 100% of the code required volume. Procedure ISI-UT-16A is not qualified for the detection of flaws on the far side of single side access exams. The techniques provided by this procedure were used for a best effort examination for flaws on the far side of the weld.

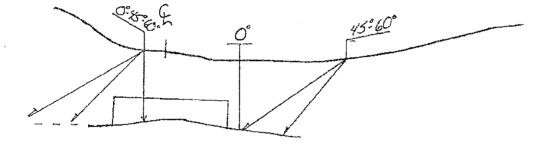
Sketch of Limitation:

G:\IDDEAL50\PI2RF02002\SUPPLEMENTAL UT\2002u026\_1.bmp

VALVE

FLOW The

REDUCER



<u>WELD W-5</u>

OVERAGE PLOT

Limitations removal requirements: N/A

Examiner	Level	1	/ Signature /	Date	Reviewer	Signature Signature	Date
Griebel, Dav	rid M.	ļ	Und-	2/13/2002	Clay, Sean P.	ITIL ADGULT !	02-18-02
Examiner	Levei	11	Signature /	Date	Site Review	Signature	Date
Timm, Jeren	ny T.	1	In the	2/13/2002	Wren, Jerry P.	Aug P.a.	2.19-02
Other	Level	N/A	Signature	Date	ANII Review	Signature	Date
N/A		1			Clow, Ron	1000 2/1	9/02



### **Determination of Percent Coverage for UT Examinations - Pipe**

Site/Unit: Summary No.: Workscope:	/ No.: 502392		Proced edure Revision/ Work Order I	FC: 1 /	Outage N Report N Pag	o.: 2002U026
<u>45 deg</u>						
Scan 1	100.000	% Length X	50.000	% volume of length / 100 =	50.000	% total for Scan 1
Scan 2	100.000	% Length X	50.000	% volume of length / 100 =	50.000	% total for Scan 2
Scan 3	100.000	% Length X	50.000	% volume of length / 100 =	50.000	% total for Scan 3
Scan 4	100.000	% Length X	50.000	% volume of length / 100 =	50.000	% total for Scan 4
<u>Other dec</u>	<u>- 60</u>	divide by # scar (to be used for a v is for coverage to % Length X	supplemental so hat was not obt	<b>~</b>	0.000	% total for Scan 1
					0.000	% total for Scan 2
Scan 2	0.000	% Length X _	0.000	% volume of length / 100 =		
Scan 3	0.000	% Length X _	0.000	_ % volume of length / 100 =	0.000	% total for Scan 3

Scan 4 \_\_\_\_\_\_% Length X \_\_\_\_\_% volume of length / 100 = \_\_\_\_\_% total for Scan 4

#### Percent complete coverage

Add totals for each scan required and divide by # of scans to determine;

50.000 % Total for complete exam

Site Field Supervisor: <u>Jup P.W.</u> Date: <u>2-19-02</u>

:



# Magnetic Particle Examination

Si	ite/Unit:	NMC	/ Pi	2	Proce	dure:	ISI-MT	<b>[-1</b>	Outa	ige No.:	Pl2	RF2002
Summa	ary No.: _		500830		Procedure Rev	v/FC:1	2 /	****	Rep	ort No.:	20(	J2M016
Worl	kscope:		ISI		Work Order	No.:	01069	46		Page:	1	of _4
Code:					Cat.: <b>C-</b> F						1010100000000	****************
Drawing No						n: Pipe-Flan						
System ID:	MS	·····										
Component	t iD: W-14	(/LSU							Size/Le	ngth:	16"	/ 72"
Limitations:	Hang	jer at Top	o Dead Cer	tior								
Light Met	er Mfg.:	i i fair an the second seco	N/A		Serial	No.:		***************	Illuminati			
					Serial							
	n:			ed								
						Surface Co				LENDED		
			Top Dead	Center		Field Orie	entation:		Lor	ngitudin	al	
	Particle N								2			
					Wet 🗌		Yes 🗌		Appli	ied By:	Du	usting 🗹
			ey 44		Dry 🗹		No 🗹		•		Spr	aying 🗌
	•		47		uorescent		******	N/A	·····			oding 🗌
					search				:			
Head Sho			N/A		S		acing					
Adj. Spaci			2 - 6	-			g Coils		N/A			
Prods. Spa		······································		inches		Current :	machine	seiting)	<u> </u>	<u>N/A</u>	/	Amperes
Indication	Loc	Loc	Diameter	Length	Туре			R	lemarks			
No.	L	W			R/L							
		1				1	·····					*****
										<u></u>		
	ļ	+			****							
	[											
Comments:												
See sketch Results:	NAD											
Percent Of				N	-			······				
Tercent Of	Welaye	Opramed	> 90%:	180		Reviewed	Previous	Data:	Ye	<u>S</u>		
Examiner Potter, Mich	Levei I	•	Signa			Reviewer	·······		Sign	ature		Date
Examiner	Level 1	/ 1	//luhaf Signa	turo		Halling, Day Site Review	/id A.	10	<u>IA le</u>	W/s	- Summer	50-81-
Lorado, Qui	•			<u>u</u> C	· · · · · · · · · · · · · · · · · · ·	Wren, Jerry	P.	N.A	en f.	aturg Wr	N. 1 m	FOZ
Other M/A	Level	WA ,	Signa	ture	1	ANII Review		CC	> Sian	ature _		Date
N/A		1			[	Clow, Ron		1/2	<u> </u>		21	8/02



### **Limitation Record**

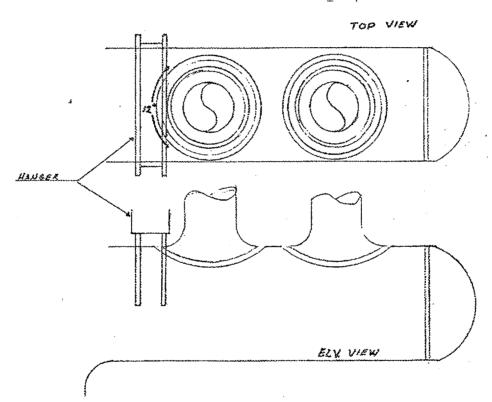
Site/Unit:	NMC	/	P12		Procedur		SI-MT	1	Outage No.:		RF2	002
Summary No.:		5008		Proc	cedure Revision/F(	12	/		Report No .:		02M	316
Workscope:					Work Order No	 	10694	-	Page:	2	of	4

Description of Limitation:

Hanger at Top Dead Center.

Sketch of Limitation:

G:\IDDEAL50\Pi2RFO2002\SUPPLEMENTAL MT\2002m016\_1.bmp



Limitations removal requirements: N/A

Examiner	Level	11	M. Sippature	- Date	Reviewer	Signature	Date
Potter, Mich	ael E.	1	/ What 7 tota	2/12/2002	Halling, David A.	1 DAblen	2-18-02
Examiner	Level	11	Signature	Date	Site Review	Signature/	Date
Loredo, Quir	rino	/	S. Zoula	2/12/2002	Wren, Jerry P.	Man P.UM	2-18-02
Other	Level	N/A	Signature	Date	ANII Review	·	Date
N/A		1			Clow, Ron	1 all.	2/18/02



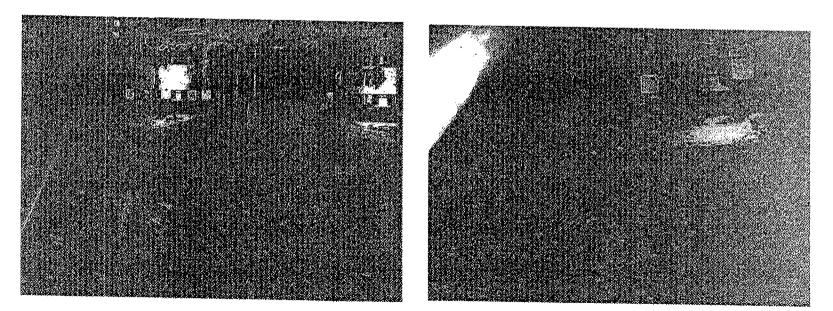
# **Supplemental Report**

				Report N	10:: _	2002M016		
Summary No.:	500830	, ·		Pa	ige:	3 0	of 4	
Examiner:	Potter, Michael E.	Level: II	Reviewer	Halling, David A.	~			
Examiner:	Loredo, Quirino	Level:		Wren, Jerry P.			50.81-	
Other:	N/A	Level: N/A	ANII Review:				-18-02	
a a a a a a a a a a a a a a a a a a a				Clow, Kon	Di	ate:	118/02	

Comments: None

# Sketch or Photo: G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL MT\2002m016\_2.bmp

### G:\IDDEAL50\PI2RFO2002\SUPPLEMENTAL MT\2002m016\_3.bmp





### **Determination of Percent Coverage for Surface Examinations**

Site/Unit: Summary No.: Workscope:	nmary No.: 500830			Procedure: ISI-MT-1 Procedure Revision/FC: 12 / Work Order No.: 0106946					•	tage N port N Pag	o.: _	PI2RF2002 2002M016 4 of 4				
	red (as s ∟ength ≖ Total Ar		72.000	code re _* Wi 62.000	dth _	ce drawii 2.2 square ir	50									
	<b>chieved</b> Area exar Percent c		e		- 02% (8	in. / Tota area regi				162. = area e		sq. ed)	. in.			indonachilite Indonachilite

#### To determine length of a circumferential weld

Note - Diameter refers to actual external diameter not pipe size (see table below)

Diameter 0.000 \* (Pi) 3.1416

= Length 0.000 inches

Pipe Size	Actual Diameter	(Length) Circumference	Pipe Size	Actuał Diameter	(Lengt Circumfer
2	2.375	7.46	12	12.75	40.00
2.5	2.875	9.03	14	14.0	43.98
3	3.5	11.0	16	16.0	50.27
3.5	4.0	12.57	18	18.0	56.55
4	4.5	14.14	20	20.0	62.83
5	5.563	17.48	22	22.0	69.12
6	6.625	20.81	24	24.0	75.40
8	8.625	27.10	30	30.0	94.25
10	10.75	33.77			

Site Field Supervisor: Ann P. W. TIL Date: 2-18-02