

INDIAN POINT UNIT 3 FLOW ACCELERATED CORROSION

3RF13 OUTAGE

ORIGINAL

2005



— Ultrasonic Examination Report

IPEC Unit # 3

Report No.: 05UT054

Page <u>1</u> of <u>6</u>

Sys. / Comp. ID:

FW-03.1B-08E, FW-03.1B-09P

Exam Item: **ELBOW, PIPE**

DWG No. or Sketch: EC-H-50047

WR/Mod:

IP3-04-13363

QA Category: Non Cat ASME XI Class: N/A Cat: N/A

Procedure:

ENN-NDE-9.05

Rev.: 0

Component Configuration: ELBOW, PIPE

Orientation: 0 Degree

Mode: Longitudinal

Type of Material:

Carbon Steel

Size: 18" Sch. 60 Thickness:

0.656"

Equipment

Angle: 0°

103861 Krautkramer DMS-2 Due: N/A Instrument:

Vertical Linearity Check

Signal 1 100 90 80 70 60 50 40 30 20 10 Attenuator Linearity Check

80% - 6 db | 80% - 12 db 40% + 6 db 20% + 12 db N/A N/A (64-96)(32 to 48) (16 to 24) (64-96)

Transducer:

011790 KBA 8 Mhz 0.38" RND FH2E Dual Wedge: N/A

Search Unit Cable: Couplant: 04225 Sonotech / Ultragel II

6' Self-Cont.

Wedge Meas. Angle: Thermometer:

N/A ° 104248

Exit Point-Front: Due: 1/23/2006 N/A "

Calibration Block:

Temperature 79 °F

Simulator Block:

103882

Step Wedge T= .25" - 3" Material: 1018 Steel

N/A °F

Reference Block:

N/A N/A

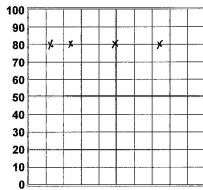
Component:

N/A °F 79 °F

OD **Entry Surface:**

Distance Amplitude Curve

Each Major Screen Division =



Reflector	Orient.	FSH	Pos.	dB
0.250"	Step	80	1.25	N/A
0.500"	Step	80	2.50	N/A
1.000"	Step	80	5.00	N/A
1.500"	Step	80	7.50	N/A

Calibration Times:

1407 1512 1736

Instrument Settings

Range (in.): 2.0" Thick Cal: 2-PT

.2341 Velocity (in./µs): Sensitivity (dB): 58

maint 80% **Scan Sensitivity**

Frequency (mHz): 8

Reject:

Off

Filter: **Pulse Length:** **Fullwave Fixed**

Damping:

Fixed

Mode Select:

Dual **Fixed**

Rep. Rate: DEC/Gate:

Off

Jacks:

T/R

Acceptance Standard:

1

Minimum wall thickness = 87.5% of nominal thickness

Recordable Indication(s): No

2 3 4 5 6 7 8 9 10

Recording Level:

N/A % DAC Evaluation Level:

N/A % DAC

100 % Complete Limitations: No

Remarks: Gridded and examined as per FAC Engineer direction. U/S two grid lines, D/S gridded 36".

lan H. Pedersen Level: IIL Date: 3/18/2005 Examiner: Examiner: N/A Level: NA Date: 3/18/2005 Reviewed by: Drue Geener 5 3 Date: عام ANII Review: ___

					Report No.:	05UT054	
Entergy					Page	e of	
Sys. / Comp. ID:	FW-03.1B-08E, 09P	Material:	Carbon Steel	High Reading: 0.966	' Exam Item:	ELBOW, PIPE	
		Size:	18" Sch. 80	Low Reading: 0.661] -		
DWG No.:	EC-H-50047 Rev.2	Thickness:	0.750"	Grid Size: 4"	WR / Mod:	IP3-04-13363	
Configuration:		Datum Point:	Extrados	QA Category: Nor	Non-Class ASME XI Class: N/A	Class: N/A Cat: N/A	N/A
Acceptance Standard:	87.	5% of nominal wall thickness = .656"	kness = .656"		ENN-NDE-9.05	Rev.: 0	
_							

4 +	LOOKING IN DIRECTION OF FLOW	
	17 17 17 17 18-08E	3 3 5 - 6 - 9
K B A		FW-03.18-09P

Remarks:					
Scan lows (see sketch for locations):	Examiner: Im Miled Ian H. Peder	lan H. Pedersen Level: IIL Date: 03/18/05	=	Date:	03/18/05
U/S of U/S 0.835" between J+K					
D/S of U/S 0.679" between N+O	Examiner:	Level:	Level: 1/4 Date:	Date:	4/5
U/S of D/S 0.823" between C+D				ļ	
D/S of D/S 0.682" between F+G	Reviewed by: > 5	Level: 🗷	H	Date:	Date: 5.27-51
	ANII Review:			Date:	2/2
					REA5-01

VIEW LOOKING EAST

			File	Header				
P.C. File Name Gauge File Name							FWO)31B08E.utm FW031B08E
Description Memo Comment Creation Date Date Last Saved	: : : :							3/18/2005 3/19/2005
Probe Temperature Inspector Instrument Type	: : : :		011790 DMS2	Cal. Str Company Instrume	nd. ent S.N.	:		0116LM
Min. Alarm Val. % Loss Alarm Val. Abs. Loss Alarm Units		: : : : : :	0.000 0.00 0.000 INCH	Abs. Gro	arm Val. n Alarm V owth Alar y (in/us)	m Val.	: : : : : : : : : : : : : : : : : : : :	0.000 0.00 0.000 0.2341
	:		Color	Ranges		: :		
	### ### ###	0.002 0.526	- 0.001 - 0.525 - 0.656 - 0.750	### 9. ### 9.	.751 - 9. .001 - 9. .003 - 9.	002 004		

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B C C 0.909 0.908 0.919 0.921	Q	Ш	ш	ď	I		-	7		Σ	z	0
)			2)
	0.921	0.938	0.951	0.961	0.966	0.965	0.954	0.946	0.933	0.924	0.910	0.921
	0.936	0.945	0.947	0.954	0.946	0.947	0.937	0.930	0.922	0.919	0.926	0.911
0.926 0.930	0.935	0.934	0.932	0.920	0.916	0.928	0.934	0.939	0.929	0.942	0.926	0.934
0.707 0.720	0.732	0.745	0.727	0.737	0.744	0.761	0.749	0.745	0.727	0.713	0.709	0.687
0.712 0.725	0.735	0.753	0.740	0.772	0.740	0.761	0.741	0.754	0.728	0.714	0.702	0.683
0.724	0.742	0.759	0.765	0.749	0.743	0.762	0.759	0.754	0.730	0.711	0.693	0.671
0.726	0.740	0.752	0.745	0.747	0.756	0.776	0.754	0.756	0.739	0.704	902.0	969.0
0.726	0.738	0.755	0.747	0.746	0.753	0.777	0.759	0.762	0.740	0.722	0.713	0.681
0.727	0.764	0.753	0.745	0.748	0.757	0.776	0.750	0.760	0.767	0.721	0.708	0.682
0.721	0.736	0.743	0.732	0.746	0.752	0.780	0.747	0.760	0.744	0.720	0.721	0.673
0.714	0.731	0.744	0.751	0.744	0.752	0.773	0.747	0.752	0.760	0.715	902.0	0.661
0.719 0.712	0.728	0.774	0.719	0.731	0.743	0.761	0.743	0.753	0.740	0.717	0.704	0.665
0.695 0.713	0.724	0.732	0.706	0.725	0.741	0.756	0.736	0.744	0.735	0.727	0.714	0.672
0.708 0.711	0.718	0.730	0.702	0.711	0.727	0.756	0.722	0.765	0.735	0.711	0.718	0.674
0.732 0.713	0.718	0.726	0.702	0.704	0.709	0.743	0.726	0.773	0.725	0.729	0.708	0.672
0.721 0.709	0.719	0.713	0.695	0.697	969.0	0.732	0.716	0.741	0.771	0.715	0.716	0.683
0.713 0.736	0.720	0.733	0.698	0.697	0.695	0.711	0.706	0.733	0.720	0.716	0.716	0.700
0.712 0.708 0.709 0.709 0.719 0.719 0.732 0.732 0.732	0.726 0.726 0.726 0.727 0.712 0.712 0.713 0.736		0.735 0.742 0.740 0.738 0.736 0.736 0.728 0.728 0.718 0.719	0.735 0.753 0.742 0.759 0.740 0.755 0.738 0.755 0.764 0.753 0.731 0.744 0.728 0.774 0.728 0.774 0.728 0.774 0.729 0.713	0.735 0.753 0.740 0.742 0.759 0.765 0.740 0.752 0.745 0.738 0.755 0.747 0.764 0.753 0.745 0.736 0.743 0.732 0.731 0.744 0.751 0.728 0.774 0.719 0.728 0.774 0.719 0.729 0.730 0.706 0.718 0.730 0.702 0.719 0.713 0.695 0.720 0.733 0.695	0.735 0.753 0.740 0.772 0.735 0.742 0.755 0.745 0.745 0.745 0.749 0.752 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.745 0.744 0.736 0.774 0.719 0.714 0.718 0.732 0.706 0.725 0.714 0.718 0.726 0.702 0.704 0.718 0.718 0.726 0.702 0.704 0.719 0.713 0.695 0.697 0.720	0.735 0.753 0.740 0.772 0.740 0.742 0.759 0.765 0.749 0.743 0.740 0.752 0.745 0.747 0.756 0.738 0.755 0.747 0.746 0.753 0.736 0.743 0.732 0.746 0.757 0.736 0.744 0.751 0.744 0.752 0.728 0.774 0.719 0.731 0.743 0.724 0.732 0.706 0.725 0.741 0.718 0.730 0.702 0.704 0.709 0.719 0.713 0.695 0.697 0.696	0.735 0.753 0.740 0.772 0.740 0.761 0.742 0.759 0.765 0.747 0.756 0.776 0.740 0.752 0.745 0.747 0.756 0.776 0.738 0.755 0.745 0.748 0.757 0.776 0.736 0.743 0.746 0.757 0.776 0.737 0.744 0.751 0.744 0.752 0.778 0.728 0.774 0.751 0.744 0.752 0.773 0.728 0.774 0.719 0.731 0.743 0.761 0.729 0.774 0.719 0.725 0.741 0.756 0.718 0.730 0.700 0.725 0.741 0.756 0.718 0.726 0.704 0.709 0.743 0.719 0.713 0.695 0.696 0.732 0.720 0.733 0.696 0.732 0.711	0.753 0.753 0.740 0.772 0.740 0.761 0.741 0.742 0.759 0.765 0.749 0.743 0.762 0.759 0.740 0.752 0.745 0.747 0.756 0.776 0.759 0.738 0.755 0.745 0.748 0.757 0.777 0.759 0.736 0.743 0.745 0.748 0.757 0.776 0.759 0.737 0.743 0.748 0.757 0.776 0.750 0.747 0.738 0.744 0.752 0.776 0.747 0.747 0.747 0.728 0.774 0.774 0.773 0.747 0.743 0.743 0.728 0.774 0.774 0.774 0.756 0.743 0.743 0.718 0.730 0.706 0.725 0.744 0.756 0.726 0.718 0.726 0.701 0.709 0.743 0.726 0.716 0.719 0.713 <	0.753 0.753 0.763 0.774 0.774 0.754 0.754 0.742 0.759 0.765 0.749 0.743 0.762 0.759 0.754 0.740 0.752 0.745 0.747 0.756 0.776 0.759 0.754 0.738 0.755 0.747 0.753 0.777 0.759 0.760 0.736 0.753 0.745 0.754 0.750 0.760 0.737 0.743 0.757 0.776 0.750 0.760 0.738 0.743 0.752 0.776 0.750 0.760 0.739 0.744 0.752 0.773 0.747 0.752 0.728 0.774 0.744 0.752 0.773 0.744 0.728 0.774 0.741 0.756 0.744 0.756 0.718 0.730 0.706 0.724 0.756 0.756 0.765 0.718 0.720 0.704 0.709 0.743 0.765 <	0.753 0.753 0.753 0.7740 0.7741 0.7541 0.754 0.753 0.742 0.759 0.765 0.749 0.743 0.762 0.759 0.754 0.753 0.740 0.755 0.745 0.745 0.746 0.756 0.754 0.759 0.759 0.739 0.754 0.755 0.747 0.756 0.777 0.759 0.760 0.739 0.754 0.753 0.748 0.757 0.776 0.759 0.760 0.767 0.736 0.743 0.748 0.757 0.776 0.769 0.760 0.767 0.737 0.744 0.752 0.776 0.776 0.760 0.764 0.760 0.728 0.744 0.752 0.773 0.747 0.760 0.760 0.728 0.774 0.743 0.743 0.743 0.744 0.760 0.729 0.770 0.720 0.741 0.756 0.743 0.746 0.736 <th>0.753 0.753 0.753 0.774 0.761 0.741 0.754 0.728 0.714 0.742 0.753 0.765 0.749 0.761 0.761 0.754 0.754 0.728 0.711 0.740 0.755 0.745 0.746 0.746 0.754 0.754 0.756 0.701 0.740 0.755 0.747 0.756 0.777 0.759 0.762 0.740 0.701 0.738 0.756 0.747 0.759 0.776 0.750 0.760 0.740 0.721 0.754 0.753 0.746 0.755 0.776 0.750 0.747 0.760 0.747 0.760 0.721 0.738 0.744 0.751 0.744 0.752 0.773 0.744 0.750 0.715 0.728 0.774 0.741 0.743 0.744 0.753 0.740 0.716 0.728 0.774 0.749 0.750 0.744 0.750 0.741</th>	0.753 0.753 0.753 0.774 0.761 0.741 0.754 0.728 0.714 0.742 0.753 0.765 0.749 0.761 0.761 0.754 0.754 0.728 0.711 0.740 0.755 0.745 0.746 0.746 0.754 0.754 0.756 0.701 0.740 0.755 0.747 0.756 0.777 0.759 0.762 0.740 0.701 0.738 0.756 0.747 0.759 0.776 0.750 0.760 0.740 0.721 0.754 0.753 0.746 0.755 0.776 0.750 0.747 0.760 0.747 0.760 0.721 0.738 0.744 0.751 0.744 0.752 0.773 0.744 0.750 0.715 0.728 0.774 0.741 0.743 0.744 0.753 0.740 0.716 0.728 0.774 0.749 0.750 0.744 0.750 0.741

Page 1

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San HAS 03/13/1

		File	Header		
P.C. File Name :				FWO	31B09P.utm
Gauge File Name :					FW031B09P
Description :					
Memo Comment :					
Creation Date :					3/18/2005
Date Last Saved:					3/19/2005
Probe :		011790	Cal. Stnd. :		
Temperature :					
Inspector :			Company :		
Instrument Type :		DMS2	Instrument S.N.:		0116LM
Min. Alarm Val.	:	0.000	Max. Alarm Val.	:	0.000
% Loss Alarm Val.	:	0.00	% Growth Alarm Val.	:	0.00
Abs. Loss Alarm Va	il. :	0.000	Abs. Growth Alarm Val	. :	0.000
Units	:	INCH	Velocity (in/us)	:	0.2336
:			:		
:			:		
		Color	Ranges		
#	## 0.00	0 - 0.001	### 0.751 - 9.000		
#	## 0.00	2 - 0.525	### 9.001 - 9.002		
	## 0.52	6 - 0.656	### 9.003 - 9.004		
#	## 0.65	67 - 0.750	### 9.005 - 9.006		

25 UT 054
25 What 25/15/05

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·	0.892	0.886	0.884	0.882	0.881	0.891	0.901	0.904	0.907	0.933	0.907	0.905	0.900	0.894	0.892
2	0.890	0.898	0.894	0.891	0.886	0.896	0.901	0.905	0.903	0.910	0.908	0.893	606.0	0.899	0.895
က	0.898	0.903	0.896	0.885	0.886	0.893	0.902	906.0	0.907	0.912	0.910	0.897	0.915	0.895	0.898
4	0.888	0.887	0.883	0.879	0.887	0.901	0.914	0.910	0.918	0.915	0.914	0.894	0.912	0.895	0.892
2	0.878	0.900	0.910	0.885	0.891	0.901	0.932	0.944	0.926	0.923	0.917	0.877	0.908	0.887	0.876
9	0.880	0.880	0.888	0.890	0.900	0.910	0.925	0.938	0.921	0.919	0.914	0.876	0.912	0.892	0.882
7	0.892	0.900	0.895	0.899	0.914	0.921	0.909	0.916	0.912	0.915	0.901	0.893	0.907	0.891	0.888
80	0.901	0.906	0.903	0.909	0.909	0.915	0.938	0.927	0.902	0.924	0.894	0.891	0.901	0.890	0.893
O	0.909	0.906	0.907	0.902	0.903	0.907	0.900	0.895	906.0	0.904	0.901	0.907	0.894	0.911	0.907
10	0.911	0.927	0.897	0.893	0.889	0.909	0.896	0.890	0.910	0.927	0.907	0.918	968.0	906.0	0.914

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Page 1

TRAVELER PACKAGE CHECKLIST

			Component	FW-03-1	<u>8-08E</u>
			Work Order	IP3-04-1	3363
1.	Proinen	ection briefing given by Erosio	n/Corrosion Engineer	Then State	3/18/05
1.	1 Tellisp	ection briefing given by Erosio	1//Oorrosion Engineer	E/CÆng.	Date
	0			J	N N N N N N N N N N N N N N N N N N N
•	M				
	UT Tec	h UT Tech	O UT Tech	UT Tech	
2.	Travele	r package contents	<u> </u>		
		,	UT Tech	E/C Eng.	
	a.	Copy of procedure ENN-NDE	-9.05		
	b.	Calibration sheet	1		
	c. d.	Drawing with point highlighted Data sheet	•		
	e.	E/C Engineers phone number	736-8 3 56. Pager 445-02	53	
0	1	and the second s	- W		
3.	Locatio	n verified against drawing:	UT Tech	E/C Epg.	
			01 1000	<u> </u>	
4.		ection point setup per procedu		<u> </u>	
		Engineer direction (If gridding	is used)	UT Tech	
	a. b.	Correct grid size used Grid correctly laid out			
	C.	Grid lettered and numbered co	orrectly		
	d.	Area up/downstream of comp			
5.	Doto L	oggor	und		
5.	Data Lo	ogger	UT Tech		
	a.	Inspection point used as file n			
	b.	Operators ID correct			
	C.	Instrument ID correct	\cap		
6.	Data SI	neet	444		
٥.	- 414 0		UT Tech		
	a.	Flow direction correct			
	b.	Sketch drawn correctly			
	C.	Component number verified			
7.	Calibra	tion Sheet correct	<u> </u>		
			UT Tech	\sim	
8.	Daily ro	eview complete	03/18/05	UTT	
J.	Daily 16	viow complete	Date	E/C Eng.	

NOTE:

- UT Technician sign-off is required prior to start of inspection activity.
 Engineering sign-off is required after verification of activity.