



Entergy Nuclear Operations, Inc.  
Pilgrim Station  
600 Rocky Hill Road  
Plymouth, MA 02360

June 28, 2006

Stephen J. Bethay  
Director, Nuclear Assessment

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

SUBJECT: Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station  
Docket No. 50-293, License No. DPR-35

Request For Approval of ASME Code, Section XI, Third Ten-Year Pilgrim  
Relief Request, PRR-42, Examinations of Component Welds with Less  
Than Essentially 100% Examination Coverage

- REFERENCES
1. Entergy (BECO) Letter No. 2.95.091, ASME Section XI, Third Interval Inservice Inspection Plan, Pilgrim Nuclear Power Station, dated September 1, 1995
  2. ASME Section XI, Code Case N-460, "Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division 1"

LETTER NO. 2.06.054

Dear Sir or Madam:

By Reference 1, Entergy submitted Pilgrim Third Ten-Year Inservice Inspection Plan for the interval of July 1, 1995 to June 30, 2005, in accordance with the 1989 ASME Code, Section XI requirements pursuant to 10 CFR 50.55a.

During the Third Ten-Year interval, Pilgrim completed the required in-service examinations in accordance with the plan; except, certain components could not fully meet the volumetric examination requirements stipulated in the 1989 ASME Code, Section XI, including the clarifications provided in the ASME Code Case N-460 (Ref. 2). Entergy has determined that conformance with the code requirement of essentially 100% coverage of weld volume or area examined was impractical due to various constraints and limitations. Accordingly, pursuant to 10 CFR 50.55a (g)(5)(iii), Entergy submits the attached Pilgrim Relief Request No, PRR-42, for NRC review and approval.

PRR-42 proposes alternatives where the requirement of "essentially 100%" volumetric examination was not feasible due to construction limitations, obstructions, accessibility, and examination techniques. The alternatives and justifications are explained in the attached relief request providing a list of components which requires relief pursuant to 10 CFR 50.55a. The alternatives and justifications provide acceptable level of quality and safety and will not adversely impact the health and safety of the public.

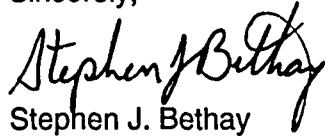
There are no commitments contained in this letter.

1047

A similar ISI Relief Request No. B-5 for Vermont Yankee Nuclear Power Station was approved by the NRC Letter dated September 19, 2005 (TAC. No. MC 0959).

If you have any questions on this transmittal, please contact Mr. Bryan Ford, Licensing Manager at 508-830-8403.

Sincerely,



Stephen J. Bethay

WGL/dm

Attachments: 1. Pilgrim Relief Request, PRR-42 (8 pages)  
2. Pilgrim 3<sup>rd</sup> Interval ISI Program Data Sheets for Examinations with less than "Essentially 100% coverage (240 pages)

cc: Mr. James Shea, Project Manager  
Office of Nuclear Reactor Regulation  
Mail Stop: 0-8B-1  
U.S. Nuclear Regulatory Commission  
1 White Flint North  
11555 Rockville Pike  
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Region 1  
475 Allendale Road  
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Senior Resident Inspector  
Pilgrim Nuclear Power Station

# **PILGRIM RELIEF REQUEST PRR-42**

## **Attachment 1 to Entergy Letter 2.06.054**

### **Entergy Nuclear Northeast Pilgrim Nuclear Power Station 3<sup>rd</sup> 10-Year ISI Interval Closeout**

#### **Proposed Alternative In Accordance with 10 CFR 50.55a(g)(5)(iii) (Inservice Inspection Impracticability - Alternative Provides Acceptable Level of Quality and Safety)**

#### **1. ASME Code Component(s) Affected**

Code Classes: 1, 2

References: Subarticle IWB-2500, Subarticle IWC-2500, GL 88-10, NUREG 0313,  
ASME Code Case N-460

Examination Categories: B-A, B-D, B-F, B-H, B-J, B-O, C-C, C-F-1 and C-F-2

Item Numbers: B1.12, B1.21, B1.30, B3.90, B5.10, B5.130, B8.10, B9.11, B9.21,  
B14.10, C3.20, C5.11, C5.51

Description: Volumetric and Surface Examination Coverage

Component Numbers: Various, see Table 3

#### **2. Applicable Code Edition and Addenda**

1989 Edition with no addenda

#### **3. Applicable Code Requirements**

Subarticle IWB-2500 states in part "Components shall be examined and tested as specified in Table IWB-2500-1". Table IWB-2500-1 requires a volumetric examination or a surface and volumetric examination be performed on the component based on Category and Item Number. The applicable examination area or volume and method required are as shown below from Table IWB-2500-1:

**TABLE 1**

<b>Examination Category</b>	<b>Item Number</b>	<b>Examination Requirements /Figure Number</b>	<b>Examination Method</b>
B-A	B1.12	IWB-2500-2	Volumetric
B-A	B1.21	IWB-2500-3	Volumetric
B-A	B1.30	IWB-2500-4	Volumetric
B-D	B3.90	IWB-2500-7	Volumetric
B-F	B5.10	IWB-2500-8	Volumetric and Surface
B-F	B5.130	IWB-2500-8	Volumetric and Surface
B-H	B8.10	IWB-2500-13	Surface
B-J	B9.11	IWB-2500-8	Volumetric and Surface
B-J	B9.21	IWB-2500-8	Surface
B-O	B14.10	IWB-2500-18	Volumetric or Surface

## PILGRIM RELIEF REQUEST PRR-42

Subarticle IWC-2500 states in part, "Components shall be examined and pressure tested as specified in Table IWC-2500-1." Table IWC-2500-1 requires a surface examination or a surface and volumetric examination to be performed on the component based on Category and Item Number. The applicable examination area or volume and method required are as shown below from Table IWC-2500-1:

**TABLE 2**

<b>Examination Category</b>	<b>Item Number</b>	<b>Examination Requirements / Figure Number</b>	<b>Examination Method</b>
C-C	C3.20	IWC-2500-5	Surface
C-F-1	C5.11	IWC-2500-7	Surface & Volumetric
C-F-2	C5.51	IWC-2500-7	Surface & Volumetric

The Code requires that the entire volume or area be examined.

#### **4. Impracticality of Compliance**

Entire volume or area required is defined by ASME Section XI Code Case N-460 titled "Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division 1". Code Case N-460 states in part, "...when the entire examination volume or area cannot be examined... a reduction in examination coverage... may be accepted provided the reduction in coverage for that weld is less than 10%".

The NRC through Information Notice 98-42 titled "Implementation of 10 CFR 50.55a(g) Inservice Inspection Requirements" termed the reduction in coverage of less than 10% to be "essentially 100 percent". Information Notice 98-42 states in part, "The NRC has adopted and further refined the definition of 'essentially 100 percent' to mean 'greater than 90 percent'... has been applied to all examinations of welds or other areas required by ASME Section XI."

Pilgrim's piping systems and associated components were designed and fabricated before the examination requirements of ASME Section XI were formalized and published. Since this plant was not specifically designed to meet the requirements of ASME Section XI, literal compliance is not feasible or practical within the limits of the current plant design.

Physical obstructions imposed by design, geometry and materials of construction are typical of vessel appurtenances, biological shield wall, insulation support rings, structural and component support members, adjacent component weldments in close proximity, unique component configurations (valves and pumps), and dissimilar metal weldments.

Therefore, examination of the entire volume or area for some of the components which are listed in Table 3 cannot be achieved. The specifics of the limitations and restrictions are also provided in Table 3. The Attachment 2 to this relief request provides the actual data sheets of examinations with less than essentially 100% coverage.

Accordingly, pursuant to 10 CFR 50.55a(g)(5)(iii), Entergy has determined that conformance with the code requirement of essentially 100% coverage of weld volume or area examined was impractical due to various constraints and limitations as stated above. Entergy requests NRC approval of the proposed alternative as stated below.



**5. Burden Caused by Compliance**

To increase the percentage coverage of the volume or area examined, the Reactor Pressure Vessel (RPV), Class 1 piping nozzles, portion of the Class 1 piping system, the CRD Housing, and a number of the Class 2 piping system support lugs would have to be re-designed, re-fabricated, or removed. These activities would also require extensive engineering and design effort, as well as the shutdown of the plant for modification installation. These activities are impractical for the plant to undertake.

**6. Proposed Alternative and Basis for Use**

- A). The components listed in Table 3 have already been examined by the available methods to the maximum extent practical. No additional volumetric or surface examinations will be performed on the components for the 3<sup>rd</sup> Inservice Inspection Interval.
- B). A visual inspection (VT-2) is performed by VT-2 qualified operators on the subject components during the system pressure tests (with no leakage detected) as required by code category B-P (each refueling outage) and category C-H (each period).

**Basis for Use**

As a minimum, all components received the required examination(s) to the extent practical with regard to the limited or lack of access available. The examinations conducted confirmed satisfactory results evidencing no unacceptable flaws present, even though "essentially 100%" coverage was not attained. PNPS has concluded that if any active degradation mechanisms were to exist in the subject welds, those degradations would have been identified in the examinations performed.

For surface examinations PNPS calculated the coverage percentage based on the area that was examined within the required coverage area divided by the required surface area to be inspected. For volumetric (ultrasonic) examinations there are many ways to calculate coverage. PNPS elected to use the following method. The required examination volume was calculated. The examination was performed in accordance with an approved ultrasonic procedure that met the governing Code requirements. The approved procedure requires a number of angles and a number of beam directions for each angle. For each angle/beam direction combination the volume interrogated by that beam was calculated (within the required coverage volume). Then that value was divided by the required examination volume to determine percentage coverage for each angle/beam-direction combination. Then those required angle/beam-direction coverage percentages were averaged to determine an overall composite coverage. For example, prior to invoking Appendix VIII, ASME Section V, Article 4 required 0°, 45°, and 60° search units for examining vessel welds from the OD of the vessel. The 45° and 60° search units are each required to be scanned in four orthogonal directions. Therefore, a total of nine angle/beam- directions are required and a coverage percentage is calculated for each of those nine angle/beam-direction combinations. Then those nine values are averaged to determine the overall composite coverage. (Note: Since Appendix VIII was invoked for vessel welds, the required number of angle/beam-direction combinations now depends on the qualified procedure, and thus the calculation would be different.)

For the most part, PNPS did not select alternative welds when coverage was limited on the scheduled weld. A sample plan implies a certain amount of random choice in the

## **PILGRIM RELIEF REQUEST PRR-42**

selection of welds for examination — unless there are more conservative ways to select the sample, such as selecting high stress points or welds where industry experience indicates that damage mechanisms are more likely. This is why for Category C-F-2, terminal end welds are singled out; they are more typically high stressed. The reason for interferences is usually independent of the flaw mechanism. However, there may be cases where this is not true. For example, valve-to-pipe welds and pump-to-pipe weld geometries may inhibit coverage. But, these welds may actually have higher stresses because of their configurations. In these cases, if alternative welds were selected, the sample of higher stressed welds in the population would be diluted. If alternative welds are chosen, the selection randomness decreases. Flaw mechanisms associated with test limitations may be missed and it may be better to accept the limited coverage than to select alternative welds.

There is Code precedent for allowing limited coverage due to inaccessibility. ASME Section XI exempts certain Class 1 and Class 2 welds from examination based on the criteria that they are inaccessible. Paragraphs IWB-1220(c) and IWC-1230 exempt welds that are inaccessible due to control rod drive penetrations or because they are encased in concrete. The Code recognizes that examination of these welds is not possible, and therefore, a Relief Request would not be necessary. The same logic applies to portions of welds that are inaccessible and where examination of those portions of welds is not possible.

To summarize, PNPS has examined all components in the 3<sup>rd</sup> Interval ISI Program and associated augmented programs to the maximum extent possible given the inspection limitations discussed above. The portion of the PNPS ISI Program surface and volumetric inspection sample that could not be examined (expressed in inches of weld metal) due to limitations/interferences during the 3<sup>rd</sup> ten year interval is approximately 4% when compared to the total weld length that could have been examined if no limitations had been present.

When the PNPS ISI Program is viewed in total, the overall degree of coverage obtained is still greater than 90%, i.e. essentially 100%. For this and the other reasons detailed in this request, Entergy believes that the limited coverage obtained on the components listed in Table 3 is not significant and will provide an adequate level of quality and safety for examination of the affected welds, and will not adversely impact the health and safety of the public.

### **7. Duration of Proposed Alternative**

Relief is requested for the third ten-year interval of the Inservice Inspection Program for Pilgrim, which began July 1, 1995 and concluded June 30, 2005.

### **8. Attachment**

Pilgrim 3<sup>rd</sup> Interval ISI program datasheets for examinations with less than "Essentially 100%" coverage are attached (Attachment 2).

**PILGRIM RELIEF REQUEST PRR-42**

**TABLE 3**

<b>COMPONENTS WITH LESS THAN "ESSENTIALLY 100%" COVERAGE</b>						
<b>CODE CATEGORY</b>	<b>CODE ITEM</b>	<b>COMPONENT ID</b>	<b>DESCRIPTION</b>	<b><u>COMBINED NDE COVERAGE</u></b>		<b>LIMITATION (CAUSE OF REDUCED COVERAGE)</b>
				<b>MT/PT</b>	<b>UT</b>	
B-A	B1.21	RPV-BH-C1	HEAD CIRCUMF. WELD	---	75	VESSEL SKIRT CONFIGURATION AND THERMOCOUPLES
B-A	B1.12	RPV-L-1- 338A	LOWER INTERMEDIATE SHELL VERTICAL WELD	---	89	JET PUMP RISER SUPPORT INTERFERENCE
B-A	B1.12	RPV-L-1- 338C	LOWER INTERMEDIATE SHELL VERTICAL WELD	---	25	JET PUMP RISER SUPPORT, SURV. SPECIMEN HOLDER & SUPPORT BRACKETS, SHROUD REPAIR TIE ROD INTERFERENCE
B-A	B1.12	RPV-L-2- 338A	LOWER SHELL VERTICAL WELD	---	73	BAFFLE PLATE AND BAFFLE GUSSET INTERFERENCE
B-A	B1.12	RPV-L-2- 338B	LOWER SHELL VERTICAL WELD	---	78	BAFFLE PLATE GUSSET INTERFERENCE
B-A	B1.12	RPV-L-2- 338C	LOWER SHELL VERTICAL WELD	---	25	BAFFLE PLATE, GUSSET, SHROUD REPAIR TIE ROD INTERFERENCE, N2K NOZZLE
B-A	B1.12	RPV-L-2- 339A	UPPER INTERMEDIATE SHELL VERTICAL WELD	---	81	FW AND CS SPARGER INTERFERENCE
B-A	B1.12	RPV-L-2- 339B	UPPER INTERMEDIATE SHELL VERTICAL WELD	---	75	FW AND CS SPARGER INTERFERENCE AND ID TAPER
B-A	B1.12	RPV-L-2- 339C	UPPER INTERMEDIATE SHELL VERTICAL WELD	---	83	FW AND CS SPARGER INTERFERENCE
B-A	B1.30	RPV-SF-0- 120	SHELL TO FLANGE	---	81	N3 NOZZLES, NOZZLE PLUGS, GUIDE RODS @ 0 & 180 deg, FLANGE CONFIGURATION

**PILGRIM RELIEF REQUEST PRR-42**

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				<b>MT/PT</b>	<b>UT</b>	
B-A	B1.30	RPV-SF-120-240	SHELL TO FLANGE	---	81	N3 NOZZLES, NOZZLE PLUGS, GUIDE RODS @ 0 & 180 deg, FLANGE CONFIGURATION
B-A	B1.30	RPV-SF-240-360	SHELL TO FLANGE	---	81	N3 NOZZLES, NOZZLE PLUGS, GUIDE RODS @ 0 & 180 deg, FLANGE CONFIG.
B-D	B3.90	RPV-N7A-NV	NOZZLE TO VESSEL	---	56.7	NOZZLE CONFIGURATION
B-D	B3.90	RPV-N7B-NV	NOZZLE TO VESSEL	---	56.7	NOZZLE CONFIGURATION
B-D	B3.90	RPV-N8-NV	NOZZLE TO VESSEL	---	70.6	NOZZLE CONFIGURATION
B-F	R1.20 (B5.130)	14-A-10A	VALVE TO PIPE	---	37.1	PIPE TO VALVE WELD PROFILE
B-F	R1.20 (B5.130)	14-B-10A	VALVE TO PIPE	---	22.1	PIPE TO VALVE WELD PROFILE
B-F	R1.20 (B5.10)	2R-N1B-1	NOZZLE TO SAFE END	---	75	REDUCED COVERAGE ON CIRC. SCANS DUE TO SURFACE CONTOUR AND MIN. WALL ISSUES
B-F	R1.20 (B5.10)	2R-N2E-1	SAFE END TO NOZZLE	---	81.2	REDUCED COVERAGE ON CIRC. SCANS DUE TO SURFACE CONTOUR AND MIN. WALL ISSUES
B-F	R1.20 (B5.10)	2R-N2G-1	SAFE END TO NOZZLE	---	75.3	REDUCED COVERAGE ON CIRC. SCANS DUE TO SURFACE CONTOUR AND MIN. WALL ISSUES
B-F	R1.20 (B5.10)	2R-N2J-1	SAFE END TO NOZZLE	---	75	REDUCED COVERAGE ON CIRC. SCANS DUE TO SURFACE CONTOUR AND MIN. WALL ISSUES
B-F	R1.11 (B5.10)	6-N4A-1	SAFE END TO NOZZLE	---	87.5	REDUCED COVERAGE DUE TO WELDED THERMOCOUPLE PADS
B-F	R1.11 (B5.10)	6-N4B-1	SAFE END TO NOZZLE	---	87.5	REDUCED COVERAGE DUE TO WELDED THERMOCOUPLE PADS
B-F	R1.11 (B5.10)	6-N4C-1	SAFE END TO NOZZLE	---	88.6	REDUCED COVERAGE DUE TO WELDED THERMOCOUPLE PADS

**PILGRIM RELIEF REQUEST PRR-42**

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				<b>MT/PT</b>	<b>UT</b>	
B-F	R1.11 (B5.10)	6-N4D-1	SAFE END TO NOZZLE	---	88.6	REDUCED COVERAGE DUE TO WELDED THERMOCOUPLE PADS
B-H	B8.10	RPV-SBW-0	RPV STABILIZER WELD	37	---	ONLY UPPER SURFACE ACCESSIBLE
B-J	R1.20 (B9.11)	10-IA-14	PIPE TO FLUED HEAD	---	50	PIPE TO PENETRATION FLUED HEAD CONFIGURATION
B-J	R1.20 (B9.11)	10-IA-15	PIPE TO VALVE	---	50	PIPE TO VALVE WELD PROFILE
B-J	R1.11 (B9.11)	10R-IA-6	PIPE TO VALVE	---	50	PIPE TO VALVE WELD PROFILE
B-J	R1.11 (B9.11)	10R-IA-7	VALVE TO PIPE	---	50	PIPE TO VALVE WELD PROFILE
B-J	R1.20 (B9.11)	12-O-24	PENETRATION TO PIPE	---	56.6	PENETRATION FLUED HEAD TO PIPE CONFIGURATION
B-J	R1.20 (B9.11)	14-A-19	PIPE TO VALVE	---	50	PIPE TO VALVE WELD PROFILE
B-J	R1.20 (B9.11)	14-B-17	PIPE TO PENETRATION	---	58.7	PIPE TO PENETRATION FLUED HEAD CONFIGURATION
B-J	R1.20 (B9.11)	14-B-20	PIPE TO PIPE	---	59.4	WALL OBSTRUCTION
B-J	R1.11 (B9.21)	1-SD-10R	PIPE TO VALVE	---	87.5	PIPE TO VALVE WELD PROFILE
B-J	R1.20 (B9.11)	2R-HB-1	HEADER TO BEND	---	75	REDUCER TO PIPE CONFIGURATION
B-J	R1.20 (B9.11)	2R-HB-4	HEADER TO BEND	---	75	REDUCER TO PIPE CONFIGURATION
B-O	B14.10	RPV-CRD- HSG-1	CRD HOUSING WELD	70	---	LIMITED EXAM DUE TO ADJACENT DRIVES; DRIVES CHOSEN TO MAXIMIZE COVERAGE; SHOOTOUT STEEL REMOVED FOR EXAM.
B-O	B14.10	RPV-CRD- HSG-2	CRD HOUSING WELD	50	---	LIMITED EXAM DUE TO ADJACENT DRIVES; DRIVES CHOSEN TO MAXIMIZE COVERAGE; SHOOTOUT STEEL REMOVED FOR EXAM.
B-O	B14.10	RPV-CRD- HSG-3	CRD HOUSING WELD	50	---	LIMITED EXAM DUE TO ADJACENT DRIVES; DRIVES CHOSEN TO

**PILGRIM RELIEF REQUEST PRR-42**

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				<b>MT/PT</b>	<b>UT</b>	
						MAXIMIZE COVERAGE; SHOOTOUT STEEL REMOVED FOR EXAM.
B-O	B14.10	RPV-CRD- HSG-4	CRD HOUSING WELD	65	---	LIMITED EXAM DUE TO ADJACENT DRIVES; DRIVES CHOSEN TO MAXIMIZE COVERAGE; SHOOTOUT STEEL REMOVED FOR EXAM.
C-C	C3.20	EB-23- 13HL1(4)	SUPPORT LUGS	87.5	---	HANGER CLAMP AGAINST 1 SIDE OF LUG
C-C	C3.20	EB-23- 59HL1(4)	SUPPORT LUGS	83.3	---	HANGER CLAMP AGAINST 1 SIDE OF LUG
C-C	C3.20	HL-10- 200HL1(4)	SUPPORT LUGS	90	---	HANGER CLAMP AGAINST 1 SIDE OF LUG
C-F-1	C5.11	GB-14-F34	PIPE TO VALVE	---	29.8	PIPE-TO VALVE WELD PROFILE
C-F-2	C5.51	GB-10-9-2E	WELDOLET	85	63.8	PIPE CLAMP OBSTRUCTION
C-F-2	C5.51	HE-26-F238	VALVE TO PIPE	---	68.8	ONE-SIDED EXAM DUE TO VALVE

**Attachment 2 to Entergy Letter 2.06.054**

**Entergy Nuclear Northeast  
Pilgrim Nuclear Power Station  
3<sup>rd</sup> Interval ISI Program Data Sheets  
for Examinations with less than  
“Essentially 100% coverage (240 pages)**



206054 Attach 2.pdf

**Pilgrim 3<sup>rd</sup> Interval ISI Program Data Sheets for  
Examinations with less than  
“Essentially 100% coverage  
(240 pages)**

**(Third Ten-Year ISI Interval:  
July 1, 1995 to June 30, 2005)**

**APRIL 2006**





GE ENERGY, NUCLEAR

## EXAMINATION SUMMARY SHEET

Report No.:  
PIL-R15-05-002

Site: Pilgrim Nuclear Power Station Component ID: RPV-BH-C1  
Outage: RF-015 HEAD CIRCUMF WELD  
System RPV ASME Cat.: B-A ASME Item B1.21 Aug Req N/A

Exams Performed	Data Sheet	Cal Sheet	Procedure	Calibration Block	Examination Personnel	Cert Level	Date
60° Long.	UT-086	N/A	TP04-01E (GE-UT-300)	PIL-5E	Scott Erickson	II	4/28/2005
60° Long.	UT-087	N/A	TP04-01E (GE-UT-300)	CAL-IIW2-033	Scott Erickson	II	4/28/2005
60° Long.	UT-088	N/A	TP04-01E (GE-UT-300)	CAL-IIW2-017	Steve Snyder	II	4/28/2005
60° Long.	UT-089	N/A	TP04-01E (GE-UT-300)	PIL-5B	Steve Snyder	II	4/28/2005
45° Shear	UT-090	N/A	TP04-01E (GE-UT-300)	PIL-5B	Steve Snyder	II	4/28/2005
45° Shear	UT-091	N/A	TP04-01E (GE-UT-300)	PIL-5B	Steve Snyder	II	4/28/2005

## Examination Results:

Ultrasonic examination results were acceptable to the requirements of ASME B&PV Code Section XI, 1989 Edition no Addenda, and Section XI, 1995 Edition with the 1996 Addenda as modified by the PDI program description and the Federal Register, Part II, Nuclear Regulatory Commission, 10 CFR Part 50 for Category B-A Reactor Pressure Vessel (RPV) Assembly Welds.

Manual transverse and parallel scans were performed in accordance with procedure GE-UT-300 V8 using 60° RL search units.

Scanning was restricted from one side of the weld due to the vessel skirt configuration and thermocouples.

Manual UT exams recorded (3) three indications, that were acceptable to the requirements of Section XI.

Coverage = 75%

Examination results were compared to data report 95-E-528,534,531 from 1995 outage with ☐ No Change

These examinations were performed under Work Order: N/A ☒ Change

This Summary and the following data sheets have been reviewed and accepted by the following personnel:

Prepared By: BMDLevel: IIIDate: 4-30-05Utility Review: [Signature]Date: 5-4-05ANII Review: [Signature]Date: 5/4/05

RWP: 0081

Dose: 110 mr.

Page 1 of 12



GE ENERGY, NUCLEAR

Ultrasonic Calibration and Examination Record  
RPV ComponentsSite/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-002 Linearity Sheet: L-002Outage: RF-015Data Sheet Number: UT-008Procedure: TP04-018 (GE-UT-300)Rev.: R0 (V2)DRR: N/ACalibration Block: PIL-5B

CS Flt 4.35"  
 Material Size Thickness  
 Initial Cal: 1254 Exam Start: 1330  
 Cal Check: N/A Exam End: 1540  
 Cal Check: N/A Ultracel II 01225  
 Final Cal: 1631 Couplant: Batch  
242027 68°F 68°F  
 Thermometer Initial Cal Temp. Final Cal Temp.

## DAC Construction

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
ID	<u>4.1"</u>	1X	<u>80%</u>	<u>7.2"</u>	<u>4.1"</u>	<u>7.2</u>
N/A	N/A	1X	N/A	N/A	N/A	N/A

DAC 1X= 63.0 dBSweep 0-10 6" DepthNote N/A dB difference between 3/8 and 5/8 VeeExam Data for Weld: RPV-BH-C1HEAD CIRCUMF. WELD

Configuration:

0072°F

Exam Surface:

Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>Plate</u>	<u>I</u>	<u>69.0</u>	<u>NRI</u>	<u>60°</u>
<u>Plate CW/CCW</u>	<u>E</u>	<u>69.0</u>	<u>NRI</u>	<u>60°</u>

## Search Unit Data

Sigma 22BC-03006 2/1.1"x.62" V Rect.  
 Manufacturer: Serial Number: Size / Shape:  
0.65" 60° 60°  
 Incident Point: Nominal Angle: Measured Angle:  
3.0 MHz SDC3 Long  
 Frequency: Model: Mode:

## Search Unit Cable

RG-174 12' 0  
 Cable Type: Length: Connectors:

## Instrument Settings

Parametrics / Epoch 4 031526704  
 Manufacturer/Model: Serial Number:  
9.59 us 0.236 in./usec 0.8 - 3.0 MHz  
 Delay/Zero: Velocity: Narrowband Filter:  
Auto Fullwave 12.0 in. Sa / Mod  
 Rep Rate: Rectification: Range: Pulsar:  
400 Ohms 0 3.03 MHz Dual  
 Damping: Reject: Frequency: Mode:  
Off Off Off Off  
 DAC: TVG: CSC: DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Calibration for full volume examination. Exams performed to maintain a 10 - 20% FSH clad roll.

Exam performed from meridinal weld RPV-BH-M1 to RPV-BH-M3 and from RPV-BH-M7 to RPV-BH-M1.

Single sided exam due to component configuration.

Exam limited from meridinal weld # M8 measuring "L" from 31.5" to 36.5" and a "W" of 5 - 6" due to a thermocoupler.

SRE Scott EricksonII4/28/2005

Initials: Examiner

Level Cal/Exam Date:

N/AN/A

Initials: Examiner

Level

BAMIII4-30-05

GE Reviewed By:

Level:

Date:

Utility Reviewed By:

Date:

ANII Reviewed By:

Date:

Page 2 of 12



GE ENERGY, NUCLEAR

Ultrasonic Calibration and Examination Record  
RPV ComponentsSite/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-002 Linearity Sheet: L-002Outage: RF-015Data Sheet Number: UT-067Procedure: TP04-018 (GE-UT-300)Rev.: R0 (V8)DRR: N/ACalibration Block: CAL-IIW2-033

CS N/A 4.0"  
Material Size Thickness  
Initial Cal: 1258 Exam Start: 1330  
Cal Check: N/A Exam End: 1540  
Cal Check: N/A Ultracal II 01225  
Final Cal: 1634 Couplant: Batch  
242027 68° F 68° F  
Thermometer Initial Cal Temp. Final Cal Temp.

## DAC Construction

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
1/4	0.6"	1X	80%	1.15"	582"	3.0
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A

DAC 1X= 60.8 dBSweep 0-10 2.0" DepthNote N/A dB difference between 3/8 and 5/8 Vee

## Search Unit Data

Siema 22BC-03006 2(1.1"x.62")/Rect.  
Manufacturer: Serial Number: Size / Shape:  
0.65" 60" 60"  
Incident Point: Nominal Angle: Measured Angle:  
3.0 MHz SDC3 Long.  
Frequency: Model: Mode:

## Search Unit Cable

RG-174 12' 0  
Cable Type: Length: Connectors:

## Instrument Settings

Panometrics / Epoch 4 031526704  
Manufacturer/Model: Serial Number:  
9.59 us 0.236 in./ussec 0.8 - 3.0 MHz  
Delay/Zero: Velocity: Narrowband Filter:  
Auto Fullwave 4.0 in. So / Med  
Rep Rate: Rectification: Range: Pulsar:  
400 Ohms 0 3.03 MHz Dual  
Damping: Reject: Frequency: Mode:  
Off Off Off Off  
DAC: TVG: CSC: DGS:

Exam Data for Weld: RPV-BH-C1

## HEAD CIRCUMF WELD

Configuration:

00 72° F  
Exam Surface: Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>Plate</u>	<u>I</u>	<u>74.8</u>	<u>NFI</u>	<u>60°</u>
<u>Plate CW/CCW</u>	<u>E</u>	<u>74.8</u>	<u>NFI</u>	<u>60°</u>

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Calibration for near surface examination. Exams performed a minimum of 14 dB above reference.

Exam performed from meridinal weld RPV-BH-M1 to RPV-BH-M3 and from RPV-BH-M7 thru RPV-BH-M1.

Single sided exam due to component configuration.

ERE Scott EricksonII 4/28/2005

Initials: Examiner

Level Cal/Exam Date:

N/AN/A

Initials: Examiner

Level

BIMIII

GE Reviewed By:

Level:

4-30-05

Date:

Utility Reviewed By:

Date:

ANII Reviewed By:

Date:

Page 3 of 12

Page 4/240



GE ENERGY, NUCLEAR

Ultrasonic Calibration and Examination Record  
RPV ComponentsSite/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-002 Linearity Sheet: L-004Outage: RF-015Data Sheet Number: UT-088Procedure: TP04-018 (GE-UT-300)Rev.: R0 (V8)DRR: N/ACalibration Block: CAL-IIW2-017

CS	N/A	4.0"
Material	Size	Thickness
Initial Cal: <u>1305</u>		Exam Start: <u>1330</u>
Cal Check: <u>N/A</u>		Exam End: <u>1540</u>
Cal Check: <u>N/A</u>	<u>Ultracel II</u>	<u>01225</u>
Final Cal: <u>1643</u>	Couplant:	Batch
<u>242027</u>	<u>68° F</u>	<u>68° F</u>
Thermometer	Initial Cal Temp.	Final Cal Temp.

## DAC Construction

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
1/4	0.6"	1X	80%	1.6"	.61"	3.0
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A

DAC 1X= 58.0 dBSweep 0-10 4.0" DepthNote N/A dB difference between 3/8 and 5/8 VeeExam Data for Weld: RPV-BH-C1HEAD CIRCUMF WELD

Configuration:

<u>00</u>	<u>72° F</u>
Exam Surface:	Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>Plate</u>	<u>I</u>	<u>72.0</u>	<u>NRI</u>	<u>60°</u>
<u>Plate CW/CCW</u>	<u>P</u>	<u>72.0</u>	<u>NRI</u>	<u>60°</u>

## Search Unit Data

Sigma	<u>22BC-03003</u>	<u>2(1.1"x.62")/Rect.</u>
Manufacturer:	Serial Number:	Size / Shape:
<u>0.65"</u>	<u>60°</u>	<u>60°</u>
Incident Point:	Nominal Angle:	Measured Angle:
<u>3.0 MHz</u>	<u>SDC-3</u>	<u>Long</u>
Frequency:	Model:	Mode:

## Search Unit Cable

<u>RG-174</u>	<u>12'</u>	<u>0</u>
Cable Type:	Length:	Connectors:

## Instrument Settings

<u>Panometrics / Epoch 4</u>	<u>031574111</u>
Manufacturer/Model:	Serial Number:
<u>9.33 us</u>	<u>0.233 in./usec.</u>
Delay/Zero:	Velocity:
<u>Auto</u>	<u>Fullwave</u>
Rep Rate:	Rectification:
<u>400 Ohms</u>	<u>0</u>
Damping:	Reject:
<u>Off</u>	<u>Off</u>
DAC:	TVG:
<u>4.0 in.</u>	<u>Sq. / Med</u>
Range:	Pulsar:
<u>3.03 MHz</u>	<u>Dual</u>
Frequency:	Mode:
<u>Off</u>	<u>Off</u>
CSC:	DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	N/A	N/A	N/A
Amplitude	N/A	N/A	N/A
Gain (dB)	N/A	N/A	N/A
Sweep (SD)	N/A	N/A	N/A

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Calibration for near surface examination. Exams performed to maintain a 14 dB above reference.

Exam performed from meridinal weld RPV-BH-M3 thru RPV-BH-M7.

Single sided exam due to component configuration.

AS Steve Snyder

II 4/28/2005

Initials: Examiner

Level Cal/Exam Date:

N/A

N/A

Initials: Examiner

Level

GE Reviewed By:

Level:

Date:

UT-088 4/15/05

5-4-05

Utility Reviewed By:

Date:

ANII Reviewed By:

Date:

Page 4 of 12



GE ENERGY, NUCLEAR

# Ultrasonic Calibration and Examination Record RPV Components

Site/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-002 Linearity Sheet: L-004Outage: RF-015Data Sheet Number: UT-009Procedure: TP04-018 (GE-UT-300)Rev.: R0 (V8)DRR: N/ACalibration Block: PIL-5B

CS      Flg:      4.35"  
Material      Size      Thickness

Initial Cal: 1307      Exam Start: 1330  
Cal Check: N/A      Exam End: 1540  
Cal Check: N/A      Ultracel II      01225  
Final Cal: 1642      Couplant:      Batch  
242027      68° F      68° F  
Thermometer      Initial Cal Temp.      Final Cal Temp.

## DAC Construction

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
ID	4.1"	1X	80%	7.5"	4.35"	7.3
N/A	N/A	1X	N/A	N/A	N/A	N/A

DAC 1X= 60.5 dBSweep 0-10 6" DepthNote N/A dB difference between 3/8 and 5/8 VeeExam Data for Weld: RPV-BH-C1

## HEAD CIRCUMF WELD

Configuration:

00      72° F  
Exam Surface:      Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>Plate</u>	<u>I</u>	<u>68.0</u>	<u>Yes</u>	<u>60°</u>
<u>Plate CW/CCW</u>	<u>P</u>	<u>68.0</u>	<u>NRI</u>	<u>60°</u>

## Search Unit Data

Sigma      22BC-03003      2(1.1"x.62")/Rect.  
Manufacturer:      Serial Number:      Size / Shape:  
0.65"      60°      60°  
Incident Point:      Nominal Angle:      Measured Angle:  
3.0 MHz      SDC-3      Long  
Frequency:      Model:      Mode:

## Search Unit Cable

RG-174      12'      0  
Cable Type:      Length:      Connectors:

## Instrument Settings

Panametrics / Epoch 4      031574111  
Manufacturer/Model:      Serial Number:  
9.33 us      0.233 in./usec.      0.8 - 3.0 MHz  
Delay/Zero:      Velocity:      Narrowband Filter:  
Auto      Fullwave      12.0 in.      Sq. / Mod  
Rep Rate:      Rectification:      Range:      Pulsar:  
400 Ohms      0      3.03 MHz      Dual  
Damping:      Reject:      Frequency:      Mode:  
Off      Off      Off      Off  
DAC:      TVG:      CSC:      DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Calibration for full volume examination. Exams performed to maintain a 10 - 20% FSH clad roll.

Exam performed from meridinal weld RPV-BH-M3 thru RPV-BH-M7

Single sided exam due to component configuration.

Exam limited at two places for an "L" of 5" and a "W" of 5 to 6" from weld centerline of M5 weld cw from 55" to 60" and M3 weld from 9" to 14".

Steve Snyder      II      4/28/2005  
Initials: Examiner      Level      Cal/Exam Date:

N/A      N/A  
Initials: Examiner      Level  
B/M Damm      III      4-30-05  
GE Reviewed By:      Level:      Date:

UT Lvl. III      5-4-05  
Utility Reviewed By:      Date:

Carl Hanson      5/4/05  
ANII Reviewed By:      Date:

**GE ENERGY, NUCLEAR****Ultrasonic Calibration and Examination Record  
RPV Components**Site/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-002 Linearity Sheet: L-002Outage: RF-015Data Sheet Number: UT-020Procedure: TP04-018 (GE-UT-300)Rev.: R0 (V8)DRR: NACalibration Block: PIL-5B

CS Flat 4.35"  
Material Size Thickness  
Initial Cal: 1303 Exam Star: 1336  
Cal Check: N/A Exam End: 1540  
Cal Check: N/A Ultracel II 01225  
Final Cal: 1646 Couplant: Batch  
242027 68°F 68°F  
Thermometer Initial Cal Temp. Final Cal Temp.

**DAC Construction**

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
1/4	<u>1.1"</u>	1X	<u>80%</u>	<u>1.1"</u>	<u>1.1"</u>	<u>1.5</u>
1/2	<u>2.2"</u>	1X	<u>55%</u>	<u>2.2"</u>	<u>2.2"</u>	<u>3.0</u>
3/4	<u>3.3"</u>	1X	<u>34%</u>	<u>3.3"</u>	<u>3.3"</u>	<u>4.5</u>
N/A	<u>N/A</u>	1X	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
N/A	<u>N/A</u>	1X	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

DAC 1X= 18.9 dBSweep 0-10 Z" DepthNote N/A dB difference between 3/8 and 5/8 Vee**Search Unit Data**

KBA 010HX1 0.5"x1.0"/Recl.  
Manufacturer: Serial Number: Size / Shape:  
0.65" 45° 45°  
Incident Point: Nominal Angle: Measured Angle:  
1.0 MHz 113-891-600 Shear  
Frequency: Model: Mode:

**Search Unit Cable**

RG-174 12' 0  
Cable Type: Length: Connectors:

**Instrument Settings**

Panometrics / Epoch 4 031526704  
Manufacturer/Model: Serial Number:  
13.91 us 0.1276 in./usec. 0.8 - 3.0 MHz  
Delay/Zero: Velocity: Narrowband Filter:  
Auto Fullwave 10.0 in. So / Mod  
Rep Rate: Rectification: Range: Pulsar:  
400 Ohms 0 1.0 MHz P/E  
Damping: Reject: Frequency: Mode:  
Off Off Off Off  
DAC: TVG: CSC: DGS:

Exam Data for Weld: RPV-BH-C1**HEAD CIRCUMF WELD**

Configuration:

00 72°F  
Exam Surface: Component Temperature

Weld Examination Area: Exam Access Scan dB Recordable Indications Exam Angle

Plate UPST 32.9 NRI 45°

**Calibration Verification**Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.  
Calibration for indication verification. Exams performed a minimum of 14 dB above reference.

SS Steve Snyder II 4/28/2005  
Initials: Examiner Level Cal/Exam Date:

N/A N/A  
Initials: Examiner Level  
B/M 4-30-05  
GE Reviewed By: Level: Date:

UT Lvl. III 5-11-05  
Utility Reviewed By: Date:

5/4/05  
ANII Reviewed By: Date:

Page 6 of 12

Page 6/240



GE ENERGY, NUCLEAR

Ultrasonic Calibration and Examination Record  
RPV ComponentsSite/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-002 Linearity Sheet: L-002Outage: RF-015Data Sheet Number: UT-091Procedure: TP04-018 (GE-UT-300)Rev.: R0 (V8)DRR: N/ACalibration Block: PIL-5B

CS      Fig:      4.35"  
Material      Size      Thickness  
Initial Cal: 1301      Exam Start: 1330  
Cal Check: N/A      Exam End: 1540  
Cal Check: N/A      Ultracel II      01225  
Final Cal: 1644      Couplant:      Batch  
242027      68° F      68° F  
Thermometer      Initial Cal Temp.      Final Cal Temp.

## DAC Construction

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
1/4	1.1"	1X	80%	1.1"	1.1"	1.5
1/2	2.2"	1X	50%	2.2"	2.2"	3.0
3/4	3.3"	1X	30%	3.3"	3.3"	4.5
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A

DAC 1X= 16.9 dBSweep 0-10 7" DepthNote N/A dB difference between 3/8 and 5/8 Vee

## Search Unit Data

KBA      E02110      .0.5"x1.0"/Rect  
Manufacturer:      Serial Number:      Size / Shape:  
0.65"      45°      45°  
Incident Point:      Nominal Angle:      Measured Angle:  
2.25 MHz      113-292-600      Shear  
Frequency:      Model:      Mode:

## Search Unit Cable

RG-174      12'      0  
Cable Type:      Length:      Connectors:

## Instrument Settings

Panametrics / Epoch 4      031526704  
Manufacturer/Model:      Serial Number:  
11.94 us      0.126 in./usec      0.8 - 3.0 MHz  
Delay/Zero:      Velocity:      Narrowband Filter:  
Auto      Fullwave      10.0 in.      So. / Med  
Rep Rate:      Rectification:      Range:      Pulsar:  
400 Ohms      0      2.0 MHz      P/E  
Damping:      Reject:      Frequency:      Mode:  
Off      Off      Off      Off  
DAC:      TVG:      CSC:      DGS:

Exam Data for Weld: RPV-BH-C1

## HEAD CIRCUMF WELD

Configuration:

00      72° F  
Exam Surface:      Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>Plate</u>	<u>UPST</u>	<u>30.9</u>	<u>Yes</u>	<u>45°</u>

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Calibration for indication verification. Exams performed a minimum of 14 dB above reference.

For recordable indication see RPV exam data sheet.

SS Steve Snyder

II

4/28/2005

Initials: Examiner

Level Cal/Exam Date:

N/AN/A

Initials: Examiner

Level

GE Reviewed By:

Level:

4-30-05

Date:

Utility Reviewed By:

Date:

ANII Reviewed By:

Date:

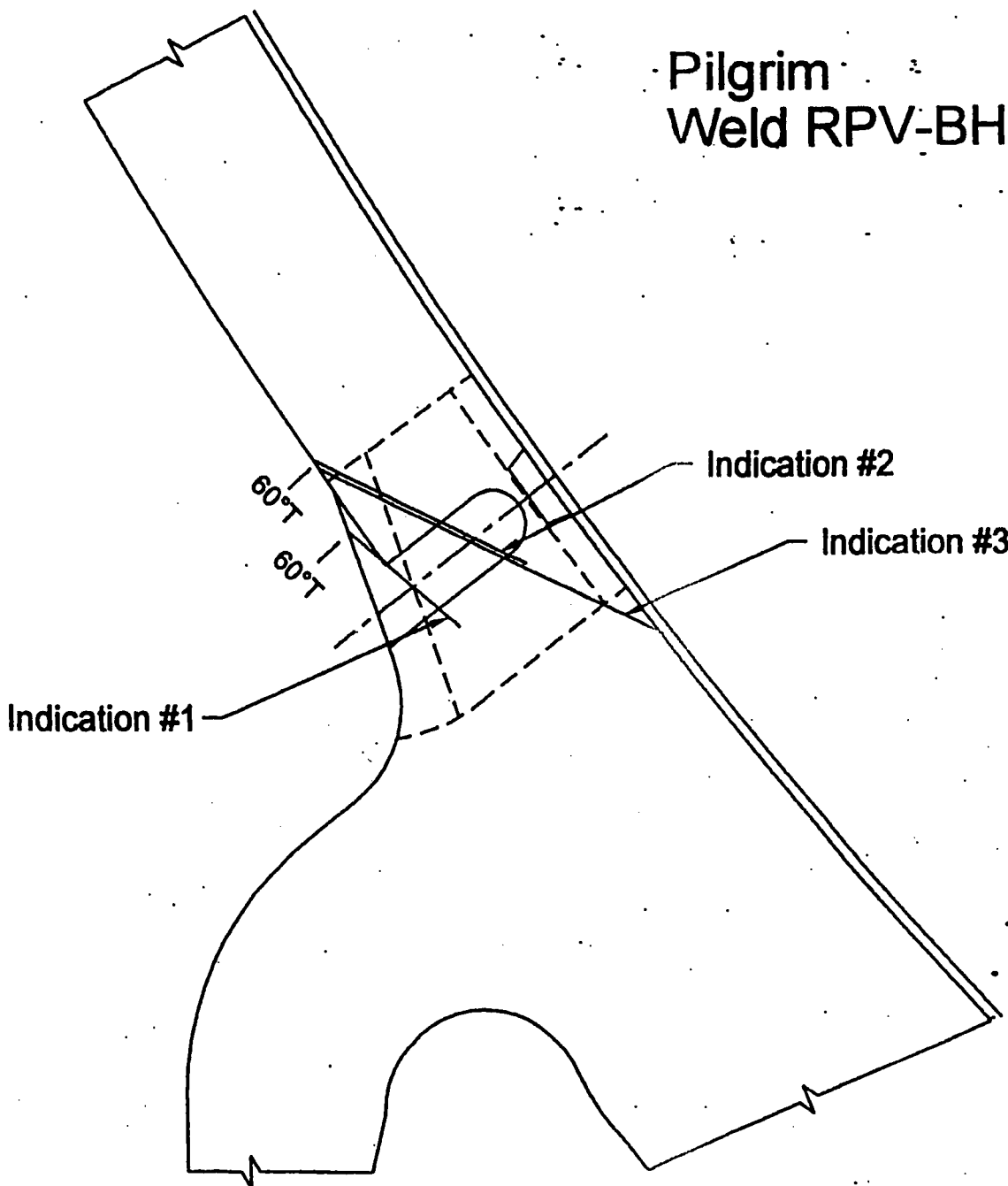
Page 7 of 12

Page 7/240





# Pilgrim Weld RPV-BH-C1



Pilgrim RF015, 2005

*Handwritten signature*  
CN L.I.III 5-4/05

Pilgrim - RFO15  
Weld RPV-BH-C1 Bottom Head Circumference  
Spring 2005

		CODE CROSS-SECTIONAL AREA		TOTAL CODE COVERAGE		
Weld Length = 593.8 Exam Volume = 24.5		Required Exam Area Sq. In.	Area Scanned Manual	Percent of Area Manual	Weld Length Manual	Percent Manual
60° NS T-Scan	A	5.3	3.9	15.9%	578.8	7.8%
60° S6 T-Scan	A	16.2	16.1	65.7%	578.8	32.0%
60° S4 T-Scan	A	3.0	3.0	12.2%	578.8	3.0%
60° NS P-Scan	A	5.3	3.2	13.1%	578.8	6.4%
60° S6 P-Scan	A	16.2	9.9	40.4%	578.8	19.7%
60° S4 P-Scan	A	3.0	2.0	8.2%	578.8	4.0%
60° NS T-Scan	B	5.3	3.9	15.9%	15	0.2%
60° S6 T-Scan	B	16.2	14.4	58.8%	15	0.7%
60° S4 T-Scan	B	3.0	2.5	10.2%	15	0.1%
60° NS P-Scan	B	5.3	3.2	13.1%	15	0.2%
60° S6 P-Scan	B	16.2	9.9	40.4%	15	0.5%
60° S4 P-Scan	B	3.0	2.0	8.2%	15	0.1%

% Total Composite Coverage = 75%

Comments: A - T-Scan and P-Scan restricted due to proximity of vessel skirt.  
B - T-Scan and P-Scan restricted due to proximity of vessel skirt and thermocouples.

Note - Rounding methods may affect calculated values.

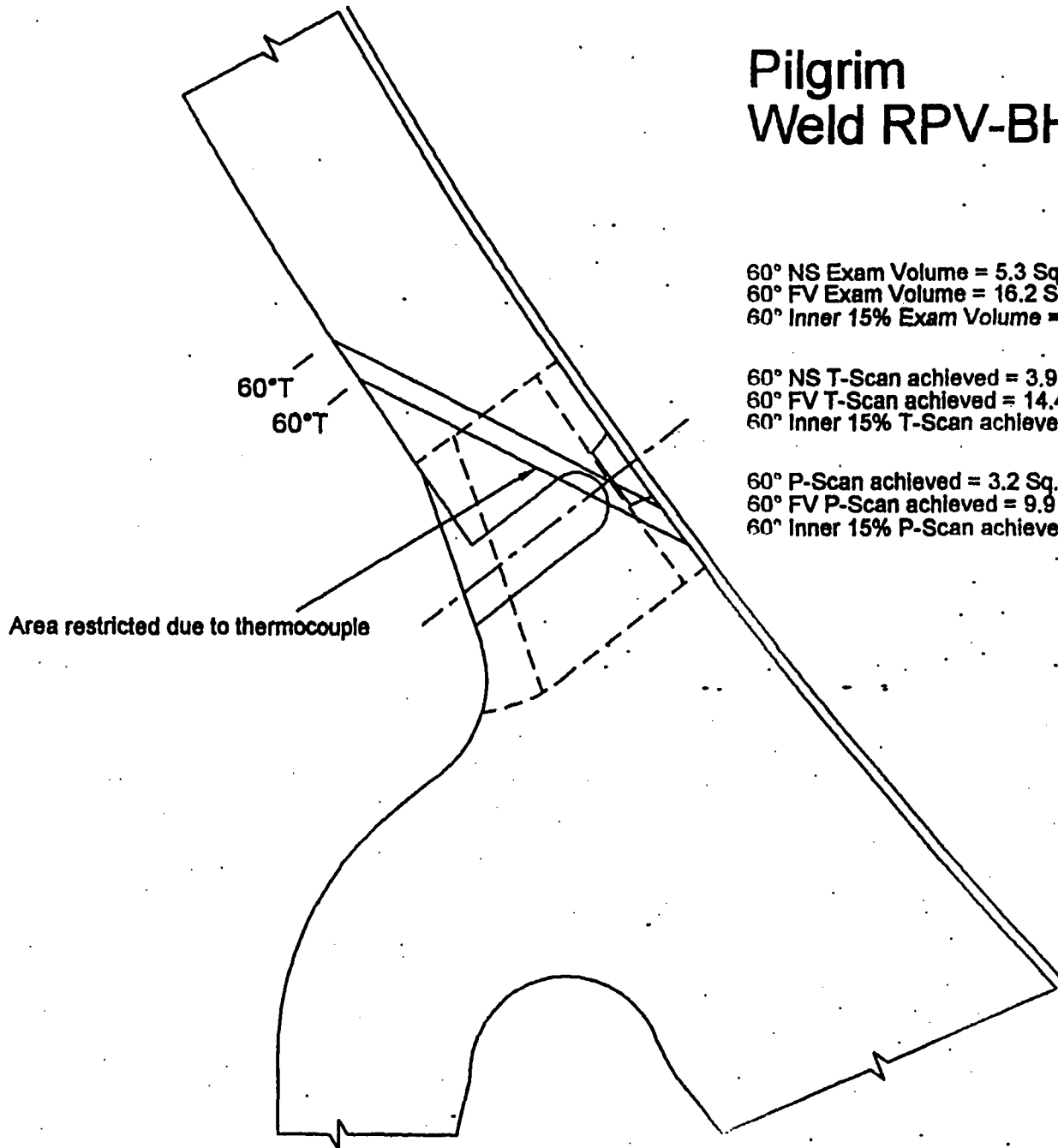
*13K 1176.1 III 5-4-05*

# Pilgrim Weld RPV-BH-C1

60° NS Exam Volume = 5.3 Sq. In.  
60° FV Exam Volume = 16.2 Sq. In.  
60° Inner 15% Exam Volume = 3.0 Sq. In.

60° NS T-Scan achieved = 3.9 Sq. In.  
60° FV T-Scan achieved = 14.4 Sq. In.  
60° Inner 15% T-Scan achieved = 2.5 Sq. In.

60° P-Scan achieved = 3.2 Sq. In.  
60° FV P-Scan achieved = 9.9 Sq. In.  
60° Inner 15% P-Scan achieved = 2.0 Sq. In.



Pilgrim RFO15, 2005

Page 11 of 12

*Handwritten:* 4/5/05 4:17 PM 5-4-05

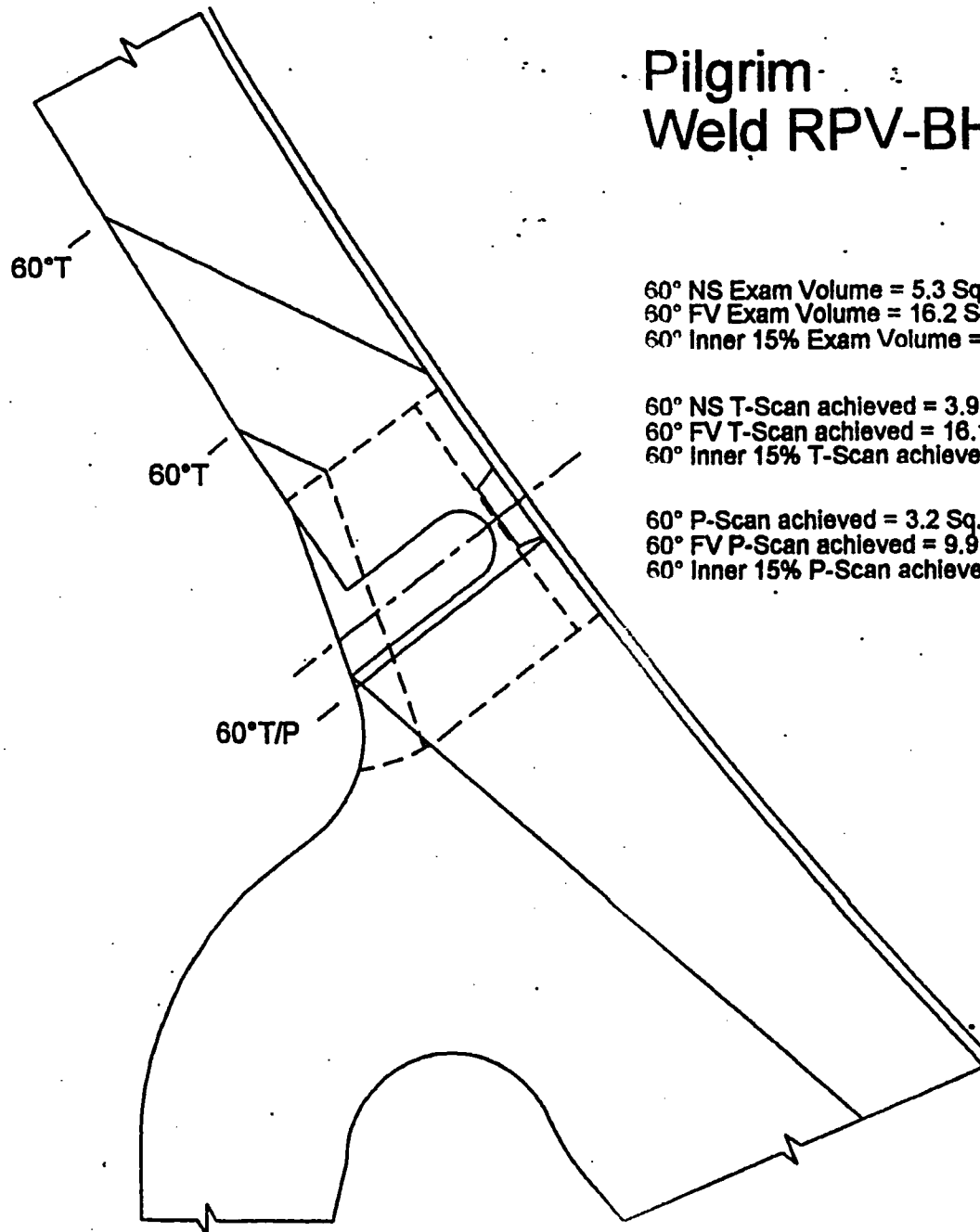
*Handwritten:* Page 11/240

# Pilgrim Weld RPV-BH-C1

60° NS Exam Volume = 5.3 Sq. In.  
60° FV Exam Volume = 16.2 Sq. In.  
60° Inner 15% Exam Volume = 3.0 Sq. In.

60° NS T-Scan achieved = 3.9 Sq. In.  
60° FV T-Scan achieved = 16.1 Sq. In.  
60° Inner 15% T-Scan achieved = 3.0 Sq. In.

60° P-Scan achieved = 3.2 Sq. In.  
60° FV P-Scan achieved = 9.9 Sq. In.  
60° Inner 15% P-Scan achieved = 2.0 Sq. In.



Pilgrim RF015, 2005

*3/15/05*  
at Lvl III 5-4-05



## EXAMINATION RESULTS

### 3.1 Examination Results

No recordable indications were detected during the RFO15 examinations, reference Table 1 below. The examination results from RFO14 are also provided in Table 2. The data records for each examination are located in Appendix F (tab 9). The actual RPV ultrasonic data which was recorded with the EDAS data acquisition system was archived onto 8mm data tapes. The EDAS data tapes are also provided as attachments to this report.

Table 1. Examination Results from RFO15

Weld No.	Weld Configuration Description	Examination Results	Examination Coverage
RPV-L-2-338A	Ring 1 Vertical Weld at 78°	No Recordable Indications	73%
RPV-L-2-338C	Ring 1 Vertical Weld at 318°	No Recordable Indications	25%
RPV-L-1-338A	Ring 2 Vertical Weld at 60°	No Recordable Indications	89%
RPV-L-1-338C	Ring 2 Vertical Weld at 300°	No Recordable Indications	25%

Table 2. Examination Results from RFO14

Weld No.	Weld Configuration Description	Examination Results	Examination Coverage
RPV-L-2-338B	Ring 1 Vertical Weld at 198°	No Recordable Indications	78%
RPV-L-1-338A	Ring 2 Vertical Weld at 60°	No Recordable Indications	Partial Exam
RPV-L-1-338B	Ring 2 Vertical Weld at 180°	No Recordable Indications	100%
RPV-L-2-339A	Ring 3 Vertical Weld at 356°	No Recordable Indications	81%
RPV-L-2-339B	Ring 3 Vertical Weld at 116°	No Recordable Indications	75%
RPV-L-2-339C	Ring 3 Vertical Weld at 236°	No Recordable Indications	83%
RPV-L-1-339A	Ring 4 Vertical Weld at 60°	No Recordable Indications	97%
RPV-L-1-339B	Ring 4 Vertical Weld at 180°	1 Acceptable Indication	100%
RPV-L-1-339C	Ring 4 Vertical Weld at 300°	1 Acceptable Indication	98%
RPV-C-4-339	Upper Shell-to-Flange Weld	1 Acceptable Indication	81%

### 3.2 Examination Limitations

The scanning accessibility of the full length and/or width of some areas from the inside surface of the RPV was limited due to physical obstructions. A description of the examination limitations is provided below in Tables 3 and 4. The actual scan areas (scan axis and increment axis) are recorded on the ISWT Examination Records (data records).



Table 3. Examination Limitations from RFO15

Weld No.	Weld Configuration Description	Examination Limitation
RPV-L-2-338A RPV-L-2-338C  RPV-L-1-338A RPV-L-1-338C	Ring 1 Vertical Weld at 78-deg Ring 1 Vertical Weld at 318-deg  Ring 2 Vertical Weld at 60-deg Ring 2 Vertical Weld at 300-deg	Proximity of Baffle Plate & Baffle Gusset Proximity of Baffle Plate, Baffle Gusset, Core Shroud Tie Rod, & N2K Nozzle Proximity of Jet Pump Riser Support Proximity of Jet Pump Riser Support, Surveillance Specimen Holder & Support Brackets, and Shroud Tie Rod

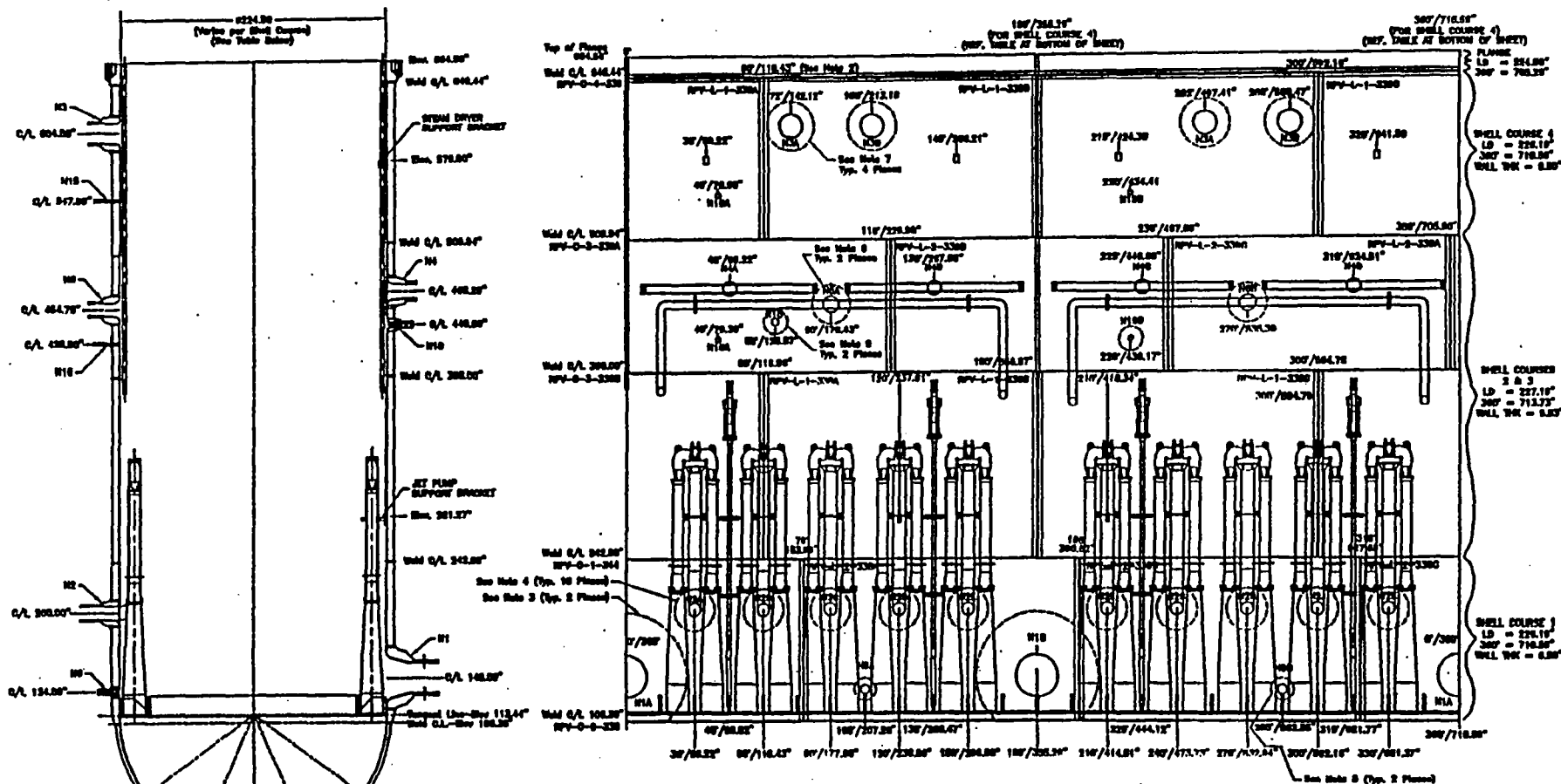
Table 4. Examination Limitations from RFO14

Weld No.	Weld Configuration Description	Examination Limitation
RPV-L-2-338B RPV-L-1-338A RPV-L-1-338B RPV-L-2-339A RPV-L-2-339B RPV-L-2-339C RPV-L-1-339A RPV-L-1-339B RPV-L-1-339C RPV-C-4-339	Ring 1 Vertical Weld at 198-deg Ring 2 Vertical Weld at 60-deg Ring 2 Vertical Weld at 180-deg Ring 3 Vertical Weld at 356-deg Ring 3 Vertical Weld at 116-deg Ring 3 Vertical Weld at 236-deg Ring 4 Vertical Weld at 60-deg Ring 4 Vertical Weld at 180-deg Ring 4 Vertical Weld at 300-deg Upper Shell-to-Flange Weld	Proximity of Baffle Plate Gusset Partial Examination None Proximity of FW and CS Spargers Proximity of FW and CS Spargers & ID Taper Proximity of FW and CS Spargers Proximity of N3A Nozzle & Nozzle Plug None Proximity of N3D Nozzle & Nozzle Plug Proximity of N3 Nozzles, Nozzle Plugs, Guide Rods @ 0 & 180, and Flange Configuration

### 3.3 Explanation of Field Data Records

In addition to the examinations being automatically recorded as described in the previous section of this report, results of the NDE activities and calibrations performed by ISwT personnel were recorded on standard ISwT forms. The field data records for each weld or area were assembled into a data package preceded by a Summary Sheet. The examination areas and Summary Sheet numbers correspond to those listed in the Summary Table and were completed while on site. Therefore, a general explanation of the individual field data forms is provided to further clarify the information contained on the summary sheet.

G-1



VESSEL INSIDE DIAMETER VARIES ACCORDING TO SHELL COURSE AS FOLLOWS:					
LOCATION	VESSEL ID	1 DEGREE = 360 DEGREES =	CRG. WELD NAME	LOCATION OF ID TRANSITION	
FLANGE	224.50"	1.9991"	708.25"	RPV-C-4-330	AT WELD CENTERLINE
SHELL COURSE 4	224.10"	1.9736"	716.55"	RPV-C-5-330A	ABOVE WELD CENTERLINE
SHELL COURSE 3	227.10"	1.9931"	713.75"	RPV-C-5-330B	NO TRANSITION (SAME DIA)
SHELL COURSE 2	227.10"	1.9931"	713.75"	RPV-C-1-331	BELOW WELD CENTERLINE
SHELL COURSE 1	224.10"	1.9736"	716.55"	RPV-C-6-330	NO TRANSITION
LOWER HEAD	R=113.44"	N/A	N/A		

Pilgrim Station  
ID Vessel Rollout  
November 2002  
RPVID

Page 15/240

# ISWT EXAMINATION SUMMARY RECORD

Project No.: 02-0285

PILGRIM NUCLEAR POWER STATION

Summary Sheet No.: 000400

**SITE:** PILGRIM STATION  
**SYSTEM:** REACTOR PRESSURE VESSEL  
**LINE/SUBASSEMBLY:** RING 2 VERTICAL WELD @ 60-DEGREES  
**IDENTIFICATION:** RPV-L-1-338A

NDE Method	Proc/Rev/Chg/ICN	NDE Examination	Calibration Sheet No.	Data Sheet No.	N O R T I H	Resolution Record	CNF Number	Remarks
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55T	80031,80032	exam 22-24	X -	N/A	N/A	Examination no's 22 - 24 were performed during RFO14.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40T	80033,80034	exam 22-24	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	80035	exam 22-24	X -	N/A	N/A	AUTO for thickness measurement only.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55T	0800301,0800302	exam 19-21	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40T	0800303,0800304	exam 19-21	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	0800305	exam 19-21	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55	0800301,0800302	exam 25-26	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40	0800303,0800304	exam 25-26	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	0800305	exam 25-26	X -	N/A	N/A	

**NOTES:**

1. Weld RPV-L-1-338A was examined from the inside surface using AIRIS-21 and EDAS-II examination equipment.
2. No recordable indications were detected during this examination.
3. Examinations 22 - 24 performed during RFO14.
4. Examinations 25 and 26 were divided into 2 segments, 25a & 25b; and 26a & 26b.
5. The examination was limited due to the proximity of the jet pump riser brace, 89% examination coverage was achieved.

\*\*\*\*UT CALIBRATION BLOCK(S)\*\*\*\*

\*\*D-70187-2/D70389-1\*\*

Prepared by: Steven J. Todd  
 Steven J. Todd - Project Engineer

Date: 4/30/05

Page 1 of 1

Summary Sheet No.: 000400

Page 16/1740





# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-19
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 60°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 24 Apr. 04	Surface Temperature °F
Data Acquisition Operator (s) / SNT Level: David Kleinjan / II Alan Schaefer / N/A		Start: 1741	End: 1746
		Start: 85	End: 85

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	11266	11282	Lower Limit	23188	23188	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	12526	12503	Upper Limit	27880	24464	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07B Cal 03						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	0800301	
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	0800302	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	0800303	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	0800304	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	0800305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1 - 15	11282	12503	23188	24464	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A & 1B	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:	Joel G. Godwin / III / 24 Apr. 05	<i>Joel G. Godwin</i>
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809 17/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-20
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 60°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH2&3DS	Exam Date	Examination Time
Data Acquisition Operator (s) / SNT Level: David Kleinjan / II Alan Schaefer / N/A		24 Apr. 04	Start End
		1646 1656	Start End
			85 85

## Data Acquisition

Scan Controller Parameters	Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters
Controller: ID Device	Lower Limit	11266	11266	Lower Limit	23188	24360	Beam Direction: Up/Dn
Scan: Y Axis	Upper Limit	12526	12538	Upper Limit	27880	26960	Transducer Size: 1.00
Increment: X Axis	Increment Interval	90		DCI	4		Code % of Overlap: 10
Mode: Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans: 15
Scan Motion: Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position: D (180)
Correction: Default	EDAS Radius In.	113.60					

Module Parameters:	A-07A	Cal 03				Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)	0800301	
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)	0800302	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)	0800303	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	0800304	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)	0800305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	Upper scan axis limited due to jet pump riser brace. Lower scan axis
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	limited due to welded lug.
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Scan No.(s)	Increment & Scan Positions Actual				Recordable Indications			Analyst Remarks	
	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1 - 15	11266	12538	24360	26960	Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Channel 5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Archive Tape/CD No.:
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A & 1B
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B

Analyst / SNT Level / Date:	Joel G. Godwin / III / 24 Apr. 05	<i>Joel G. Godwin</i>
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Page 18/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338A	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-21
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 60°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 24 Apr. 04	Examination Time: Start 1804 End 1809
Data Acquisition Operator (s) / SNT Level: David Kleinjan / II Alan Schaefer / N/A			Surface Temperature °F: Start 85 End 85

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	11266	11266	Lower Limit	27877	27877	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	12526	12526	Upper Limit	32101	32101	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07B Cal 03						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	0800301	
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	0800302	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	0800303	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	0800304	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	0800305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	Limited exam due to jet pump riser brace.
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop	Channel 1	Channel 2	Channel 3		
1 - 15	11260	12526	27877	32101	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 1A & 1B	
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis Tape/CD No.: A & B	
					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:

Joel G. Godwin / III / 24 Apr. 05

*Joel G. Godwin*

Page 19/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-25g
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 60°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 25 Apr. 05	Examination Time: Start 0112, End 0130
Data Acquisition Operator (s) / SNT Level: Richard Riddles / II			Surface Temperature °F: Start 85, End 85

## Data Acquisition

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	24138	24138	24138	Lower Limit	11146	11146	Beam Direction:	Cow/Cw
Scan:	X Axis	Upper Limit	27918	26298	26298	Upper Limit	12646	12646	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90			DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100			Conversion Counts	100		Number of Scans:	43
Scan Motion:	Bi-directional	Conversion Units In.	1.00			Conversion Units In.	1.00		Device Position:	A (0)
Correction:	Default	EDAS Radius In.	113.60							

Module Parameters: A-07-1D Cal 33						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset	PNS-33	
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	0803301	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	0803302	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	0803303	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	0803304	Examination Remarks:
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)	0803305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	Limited exam due to jet pump riser brace.
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1 - 25	24138	26298	11146	12646	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation Required:	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1A & 1B	
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Joel G. Godwin*

Eng 20/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-25b
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 60°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1C	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 25 Apr. 05	Surface Temperature °F
Data Acquisition Operator (s) / SNT Level: Richard Riddles / II		Start: 0319	End: 0324
			Start: 85
			End: 85

## Data Acquisition

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm		Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	24138	26298	26298	Lower Limit	11146	11146	11146	Beam Direction:	Cw/Ccw
Scan:	X Axis	Upper Limit	27918	27542	27542	Upper Limit	12646	12646	12646	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90			DCI	4			Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100			Conversion Counts	100			Number of Scans:	43
Scan Motion:	Bi-directional	Conversion Units In.	1.00			Conversion Units In.	1.00			Device Position:	A (180)
Correction:	Default	EDAS Radius In.	113.60								
Module Parameters: A-07-1C Cal 33						Calibration Records:		Examination Notes:			
Status	Angle	Direction	Scan Offset	Step Offset		PNS-33	Check for limitations due to the proximity of the jet pump diffuser				
Channel 1	On	55	(+)	- 7.00(in)	+ 0.00(in)	0803301	and the baffle plate.				
Channel 2	On	55	(-)	+ 7.00(in)	+ 0.00(in)	0803302					
Channel 3	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	0803303					
Channel 4	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	0803304	Examination Remarks:				
Channel 5	On	0T	(+)	- 4.40(in)	+ 1.00(in)	0803305	Entergy/Pilgrim Procedure TP04-020				
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	Limited exam due to jet pump riser brace.				
Channel 7	Off	N/A	N/A	N/A	N/A	N/A					
Channel 8	Off	N/A	N/A	N/A	N/A	N/A					

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop					
25 - 39	26298	27542	11146	12646	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Archive Tape/CD No.:	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A & 1B	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B	

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Joel G. Godwin*



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-26a
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 60°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 25 Apr. 05	Examination Time: Start 0153 End 0210
Data Acquisition Operator (s) / SNT Level: Richard Riddles / II			Surface Temperature °F: Start 85 End 85

## Data Acquisition

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	27877		30307	Lower Limit	11146	11146	Beam Direction:	Cow/Cw
Scan:	X Axis	Upper Limit	33997		33997	Upper Limit	12646	12646	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90			DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100			Conversion Counts	100		Number of Scans:	69
Scan Motion:	Bi-directional	Conversion Units In.	1.00			Conversion Units In.	1.00		Device Position:	A (0)
Correction:	Default	EDAS Radius In.	113.60							

Module Parameters: A-07-1D Cal 33						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset		
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	PNS-33	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	0803301	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	0803302	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	0803303	
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)	0803304	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	0803305	Entergy/Pilgrim Procedure TP04-020
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	Limited exam due to jet pump riser brace.
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
28 - 69	30307	33997	11146	12646	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Joel G. Godwin*

0092 22/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-26b
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 60°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 25 Apr. 05	Examination Time: Start 0216 End 0237
Data Acquisition Operator (s) / SNT Level: Richard Riddles / II			Surface Temperature °F: Start 85 End 85

## Data Acquisition

Scan Controller Parameters	Increment Axis/Device	Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters
Controller: ID Device	Lower Limit	33907	33907	Lower Limit	11146	11146	Beam Direction: CCW/CW
Scan: X Axis	Upper Limit	40027	40027	Upper Limit	12646	12646	Transducer Size: 1.00
Increment: Y Axis	Increment Interval	90		DCI	4		Code % of Overlap: 10
Mode: Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans: 69
Scan Motion: Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position: A (0)
Correction: Default	EDAS Radius In.	113.60					

Module Parameters:	A-07-1D	Cal 33				Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-33	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	0803301	
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	0803302	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	0803303	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	0803304	Examination Remarks:
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)	0803305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1 - 69	33907	40027	11146	12646	Channel 1 <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Channel 2 <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Channel 3 <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Channel 4 <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Channel 5 <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
					Channel 6 <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Channel 7 <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Channel 8 <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
								Archive Tape/CD No.: 1A & 1B	
								Analysis Tape/CD No.: A & B	

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Joel A. Godwin*

Page 23/240

# ISWT EXAMINATION SUMMARY RECORD

Project No.: 02-0285

PILGRIM NUCLEAR POWER STATION

Summary Sheet No.: 000600

**SITE:** PILGRIM STATION  
**SYSTEM:** REACTOR PRESSURE VESSEL  
**LINE/SUBASSEMBLY:** RING 2 VERTICAL WELD @ 300-DEGREES  
**IDENTIFICATION:** RPV-L-1-338C

NDE Method	Proc/Rev/Chg/ICN	NDE Examination	Calibration Sheet No.	Data Sheet No.	N O R T I H	Resolution Record	CNF Number	Remarks
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT45	0803401	exam 37-38	X -	N/A	N/A	Examination no's 35-38.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55	0803402	exam 37-38	X -	N/A	N/A	AUTO for thickness measurement only.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40	0803403,0803404	exam 37-38	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40	0803403,0803404	exam 37-38	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55T	0802301,0802302	exam 35-36	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40T	0802303,0800304	exam 35-36	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	0802305	exam 35-36	X -	N/A	N/A	

- NOTES:
1. Weld RPV-L-1-338C was examined from the inside surface using AIRIS-21 and EDAS-II examination equipment.
  2. No recordable indications were detected during this examination.
  3. The examination was limited due to the proximity of the jet pump riser brace, specimen holder, and core shroud repair tie rod, 25% Examination coverage was achieved.

\*\*\*\*UT CALIBRATION BLOCK(s)\*\*\*\*  
 \*\*D-70187-2/D70389-1\*\*

Prepared by: Steven J. Todd  
 Steven J. Todd - Project Engineer

Date: 4/30/05

Page 1 of 1

Summary Sheet No.: 000600

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Page 24/340





# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338C	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-35a
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 300°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1B	Scan Path Drawing: SPLONGSH2SS	Exam Date: 25 Apr. 05	Examination Time: Start 0811, End 0835
Data Acquisition Operator (s) / SNT Level: D. Kleinjan / II, Alan Scheafer / N/A			Surface Temperature °F: Start 83, End 83

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	58938		58958	Lower Limit	23538	23538	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	60018		60018	Upper Limit	40550	24878	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90			DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100			Conversion Counts	100		Number of Scans:	13
Scan Motion:	Bi-directional	Conversion Units In.	1.00			Conversion Units In.	1.00		Device Position:	A (-90)
Correction:	Default	EDAS Radius In.	113.60							

Module Parameters: A-07-1B Cal 23						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset			
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	PNS-23	Check for limitations due to the proximity of the jet pump, the jet
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	0802301	pump riser bracket, the N2 nozzle, and the surveillance capsule
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	- 1.00(in)	0802302	holder.
Channel 4	On	SLIC-40	(+)	- 4.40(in)	+ 1.00(in)	0802303	
Channel 5	On	OT	(+)	+ 4.40(in)	+ 1.00(in)	0802304	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	0802305	Entergy/Pilgrim Procedure TP04-020
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	Exam continued on exam ID-35b.
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Start	Stop	Start	Stop					
1 - 13	58938	60018	23538	24878	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A & 1B	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date: Joel G. Godwin / III / 25 Apr. 05 *Paul S. Godwin*

Page 25/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338C	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-35b
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 300°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1B	Scan Path Drawing: SPLONGSH2SS	Exam Date: 25 Apr. 05	Examination Time: Start 0845, End 0903
Data Acquisition Operator (s) / SNT Level: D. Kleinjan / II, Alan Scheafer / N/A			Surface Temperature °F: Start 83, End 83

## Data Acquisition

Scan Controller Parameters		Increment Axis/Device	Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	58938	58943	Lower Limit	23538	24642	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	60018	60038	Upper Limit	40550	25342	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	13
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (-90)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07-1B Cal 23						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset		
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	PNS-23	Check for limitations due to the proximity of the jet pump, the jet
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	0802301	pump riser bracket, the N2 nozzle, and the surveillance capsule
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	- 1.00(in)	0802302	holder.
Channel 4	On	SLIC-40	(+)	- 4.40(in)	+ 1.00(in)	0802303	
Channel 5	On	0T	(+)	+ 4.40(in)	+ 1.00(in)	0802304	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	0802305	Entergy/Pilgrim Procedure TP04-020
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	Exam continued on exam ID-35c.
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop	Channel 1	Channel 2	Channel 3		
1 - 13	58943	60038	24642	25342	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 1A & 1B
					Channel 5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.: A & B
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Joel S. Godwin*

Page 26/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338C	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-35c	
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 300°	Device Configuration: D-PNPS-101		
Mod.Conf.: A-07-1B	Scan Path Drawing: SPLONGSH2SS	Exam Date	Examination Time	
Data Acquisition Operator (s) / SNT Level: D. Kleinjan / II Alan Scheafer / N/A		25 Apr. 05	Start	End
			0938	0940
			Start	End
			80	80

## Data Acquisition

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	58938		59935	Lower Limit	23538	30942	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	60018		59245	Upper Limit	40550	31526	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90			DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100			Conversion Counts	100		Number of Scans:	13
Scan Motion:	Bi-directional	Conversion Units In.	1.00			Conversion Units In.	1.00		Device Position:	A (-90)
Correction:	Default	EDAS Radius In.	113.60							

Module Parameters:						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-23	Check for limitations due to the proximity of the jet pump, the jet
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	0802301	pump riser bracket, the N2 nozzle, and the surveillance capsule
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	0802302	holder.
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	- 1.00(in)	0802303	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	+ 1.00(in)	0802304	Examination Remarks:
Channel 5	On	0T	(+)	+ 4.40(in)	+ 1.00(in)	0802305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	No exam from 25320 to 30942 due to specimen holder and
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	riser support brackets.
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	Further Evaluation Required:
	Start	Stop	Start	Stop					
1 - 5	58933	59245	30942	31526	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Archive Tape/CD No.:	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A & 1B	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B	

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Joel G. Godwin*



**IHI SOUTHWEST TECHNOLOGIES**  
**AUTOMATED ULTRASONIC EXAMINATION RECORD**

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338C	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-36
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 300°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1A	Scan Path Drawing: SPLONGSH2SS	Exam Date: 25 Apr. 05	Examination Time: Start: N/A, End: N/A
Data Acquisition Operator (s) / SNT Level: Alan Schaefer / N/A		Surface Temperature °F: Start: N/A, End: N/A	

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters		
Controller:	ID Device	Lower Limit	58938	N/A	Lower Limit	23538	N/A	Beam Direction:	Up/Dn	
Scan:	Y Axis	Upper Limit	60018	N/A	Upper Limit	40550	N/A	Transducer Size:	1.00	
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10	
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	13	
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (90)	
Correction:	Default	EDAS Radius In.	113.60							
Module Parameters: A-07-1A Cal 23					Calibration Records: Examination Notes:					
Status	Angle	Direction	Scan Offset	Step Offset	PNS-23	Check for limitations due to the proximity of the jet pump, the jet				
Channel 1	On	55	(+)	- 7.00(in)	+ 0.00(in)	0802301	pump riser bracket, the N2 nozzle, and the surveillance capsule			
Channel 2	On	55	(-)	+ 7.00(in)	+ 0.00(in)	0802302	holder.			
Channel 3	On	SLIC-40	(+)	- 4.40(in)	+ 1.00(in)	0802303				
Channel 4	On	SLIC-40	(-)	+ 4.40(in)	- 1.00(in)	0802304	Examination Remarks:			
Channel 5	On	0T	(+)	- 4.40(in)	- 1.00(in)	0802305	Entergy/Pilgrim Procedure TP04-020			
Channel 6	On	0T	(+)	+ 4.40(in)	+ 1.00(in)	0802306				
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	NO EXAMINATION DUE TO SHROUD			
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	TIE ROD REPAIR MECHANISM			

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
N/A	N/A	N/A	N/A	N/A	Channel 1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date: Joel G. Godwin / III / 25 Apr. 05

*Joel G. Godwin*



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338C	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-37a
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 300°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-08C	Scan Path Drawing: SPLONGSH2SS	Exam Date: 25 Apr. 05	Examination Time: Start 1340, End 1414
Data Acquisition Operator (s) / SNT Level: D. Kleinjan / II, Alan Schaefer / N/A			Surface Temperature °F: Start 88, End 88

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	24069	24068	Lower Limit	58396	58396	Beam Direction:	Cw
Scan:	X Axis	Upper Limit	40089	25766	Upper Limit	60020	60020	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	179
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (-90)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters:						Cal 34	Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset			PNS-34	Check for limitations due to the proximity of the jet pump, the jet
Channel 1	On	45	(+)	+ 1.40(in)	- 1.21(in)		0803401	pump riser bracket, the N2 nozzle, and the surveillance capsule
Channel 2	On	55	(+)	- 1.40(in)	- 1.21(in)		0803402	holder.
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)		0803403	
Channel 4	On	SLIC-40	(+)	- 1.97(in)	+ 1.69(in)		0803404	Examination Remarks:
Channel 5	On	SLIC-40	(-)	+ 0.00(in)	+ 1.69(in)		0803405	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A		N/A	Exam limited due to surveillance capsule holder.
Channel 7	Off	N/A	N/A	N/A	N/A		N/A	Continued on exam ID-37b.
Channel 8	Off	N/A	N/A	N/A	N/A		N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1 - 17	24068	25548	58396	60020	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation	
18 - 20	25638	25766	58396	59430	Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2A & 2B	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Joel G. Godwin*



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338C	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-37b
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 300°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-08C	Scan Path Drawing: SPLONGSH2SS	Exam Date: 25 Apr. 05	Examination Time: Start 1431, End 1619
Data Acquisition Operator (s) / SNT Level: D. Kleinjan / II, Alan Schaefer / N/A			Surface Temperature °F: Start 88, End 88

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	24069	31163	Lower Limit	58396	58396	Beam Direction:	Cw
Scan:	X Axis	Upper Limit	40089	40082	Upper Limit	60020	60020	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	179
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (-90)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-08C Cal 34						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset			
Channel 1	On	45	(+)	+ 1.40(in)	- 1.21(in)	PNS-34	Check for limitations due to the proximity of the jet pump, the jet
Channel 2	On	55	(+)	- 1.40(in)	- 1.21(in)	0803401	pump riser bracket, the N2 nozzle, and the surveillance capsule
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	0803402	holder.
Channel 4	On	SLIC-40	(+)	- 1.97(in)	+ 1.69(in)	0803403	
Channel 5	On	SLIC-40	(-)	+ 0.00(in)	+ 1.69(in)	0803404	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	0803405	Entergy/Pilgrim Procedure TP04-020
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	Exam limited due to surveillance capsule holder and
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	holder support bracket.

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop					
80 - 106	31163	33546	58396	59200	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
107 - 120	33636	34729	58396	58912	Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation
121 - 171	34819	39329	58396	59200	Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:
172 - 179	39419	40082	58396	60020	Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2A & 2B
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B

Analyst / SNT Level / Date: Joel G. Godwin / III / 25 Apr. 05

*Joel A. Godwin*



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338C	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-38
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 300°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-08D	Scan Path Drawing: SPLONGSH2SS	Exam Date: 25 Apr. 05	Examination Time: Start End
Data Acquisition Operator (s) / SNT Level: David Kleinjan / II			Surface Temperature °F: Start End
			N/A N/A N/A N/A

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	24069	N/A	Lower Limit	58936	N/A	Beam Direction:	Ccw
Scan:	X Axis	Upper Limit	40089	N/A	Upper Limit	60560	N/A	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	179
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (90)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters:						Calibration Records:	Examination Notes:
Status	A-08D Angle	Cal 34 Direction	Scan Offset	Step Offset			
Channel 1	On	45	(-)	- 1.40(in)	+ 1.21(in)	PNS-34	Check for limitations due to the proximity of the jet pump, the jet
Channel 2	On	55	(-)	+ 1.40(in)	+ 1.21(in)	0803401	pump riser bracket, the N2 nozzle, and the surveillance capsule
Channel 3	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	0803402	holder.
Channel 4	On	SLIC-40	(-)	+ 1.97(in)	- 1.69(in)	0803403	
Channel 5	On	SLIC-40	(+)	+ 0.00(in)	- 1.69(in)	0803404	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	0803405	Entergy/Pilgrim Procedure TP04-020
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	NO EXAMINATION DUE TO SHROUD TIE ROD REPAIR MECHANISM

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
N/A	N/A	N/A	N/A	N/A	Channel 1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Joel G. Godwin*



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Nuclear Station	Weld Identification: RPV-L-1-338C	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-38bDS
Project No.: 02-0285	Weld Description: Ring 2 Vert @ 300°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 25 Apr. 05	Examination Time: Start 0629, End 0637
Data Acquisition Operator (s) / SNT Level: Richard Riddles / II		Surface Temperature °F: Start 85, End 85	

## Data Acquisition

Scan Controller Parameters		Increment Axis/Device - Planned		Actual	Scan Axis/Arm		Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	33907	39397	Lower Limit	58728	58728		Beam Direction:	CCW/CW
Scan:	X Axis	Upper Limit	40027	40098	Upper Limit	60228	60228		Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4			Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100			Number of Scans:	69
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00			Device Position:	A (0)
Correction:	Default	EDAS Radius In.	113.60							

Module Parameters:						Cal 33		Calibration Records:		Examination Notes:	
	Status	Angle	Direction	Scan Offset	Step Offset						
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)		PNS-33		Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.		
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)		0803301				
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)		0803302				
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)		0803303				
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)		0803304		Examination Remarks:		
Channel 6	Off	N/A	N/A	N/A	N/A		0803305		Entergy/Pilgrim Procedure TP04-020		
Channel 7	Off	N/A	N/A	N/A	N/A		N/A		Limited exam due to specimen bracket.		
Channel 8	Off	N/A	N/A	N/A	N/A		N/A				

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks		
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	Further Evaluation Required:	Archive Tape/CD No.: IA & IB
	Start	Stop	Start	Stop						
62- 70	39397	40098	60228	60228	Channel 1 <input type="checkbox"/>	Channel 2 <input checked="" type="checkbox"/>	Channel 3 <input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
					Channel 4 <input type="checkbox"/>	Channel 5 <input type="checkbox"/>	Channel 6 <input type="checkbox"/>			
					Channel 7 <input type="checkbox"/>	Channel 8 <input type="checkbox"/>				

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Joel A. Godwin*

Page 32/140



# ISWT EXAMINATION SUMMARY RECORD

Project No.: 02-0285

PILGRIM STATION

Summary Sheet No.: 000100

**SITE:** PILGRIM STATION  
**SYSTEM:** REACTOR PRESSURE VESSEL  
**LINE/SUBASSEMBLY:** RING 1 VERTICAL WELD @ 78-DEGREES  
**IDENTIFICATION:** RPV-L-2-338A

NDE Method	Proc/Rev/Chg/ICN	NDE Examination	Calibration Sheet No.	Data Sheet No.	N O R T I H	Resolution Record	CNF Number	Remarks
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT0	0803305	exam 7-8	X -	N/A	N/A	Examination no's 1-8.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55	0803301,0803302	exam 7-8	X -	N/A	N/A	AUT0 for thickness measurement only.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40	0803303,0803304	exam 7-8	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55T	0800301,0800302	exam 1-6	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40T	0800303,0800304	exam 1-6	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT0	0800305	exam 1-6	X -	N/A	N/A	

- NOTES:
1. Weld RPV-L-2-338A was examined from the inside surface using AIRIS-21 and EDAS-II examination equipment.
  2. No recordable indications were detected during this examination.
  3. The examination was limited due to proximity of baffle plate and baffle plate gusset, 73% examination coverage was achieved.

\*\*\*\*UT CALIBRATION BLOCK(s)\*\*\*\*  
 \*\*D-70187-2/D70389-1\*\*

Prepared by:

Steven J. Todd - Project Engineer

Date:

4/30/05

Page 1 of 1

Summary Sheet No.: 000100

Page 33/740



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-1
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 78°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH1&4DS	Exam Date: 24 Apr. 04	Examination Time: Start: N/A, End: N/A
Data Acquisition Operator (s) / SNT Level: David Kleinjan / II Alan Schaefer / N/A			Surface Temperature °F: Start: N/A, End: N/A

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	14766	N/A	Lower Limit	9838	N/A	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	16026	N/A	Upper Limit	12466	N/A	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters: A-07B Cal 03						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	0800301	
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	0800302	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	0800303	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	0800304	Examination Remarks:
Channel 5	On	OT	(+)	+ 0.00(in)	+ 1.69(in)	0800305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	NO EXAM DUE TO VESSEL TO BAFFLE PLATE GUSSET
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Start	Stop	Start	Stop					
N/A	N/A	N/A	N/A	N/A	Channel 1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date:

Joel G. Godwin / III / 24 Apr. 05

*Joel G. Godwin*

Page 34/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-2
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 78°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH1&4DS	Exam Date	Examination Time
Data Acquisition Operator (s) / SNT Level: David Kleinjan / II Alan Schaefer / N/A		24 Apr. 04	Start End
		1453 . 1501	85 . 85

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	14766	14673	Lower Limit	12413	13781	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	16026	15948	Upper Limit	15041	15041	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters:						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset			
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	PNS-03	Check for limitations due to the proximity of the jet pump diffuser
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	0800301	and the baffle plate.
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	0800302	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	0800303	
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	0800304	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	0800305	Entergy/Pilgrim Procedure TP04-020
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	Limited examination due to vessel to baffle plate gusset.
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	Further Evaluation Required:
	Start	Stop	Start	Stop					
1 - 15	14673	15948	13781	15041	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Archive Tape/CD No.: 1A & 1B	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.: A & B	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:

Joel G. Godwin / III / 24 Apr. 05

*Joel G. Godwin*

Page 35/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-3
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 78°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH1&4DS	Exam Date: 24 Apr. 04	Examination Time: 1505 - 1518
Data Acquisition Operator (s) / SNT Level: David Kleinjan / II Alan Schaefer / N/A		Start: 1505	End: 1518
		Start: 85	End: 85

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit:	14766	14746	Lower Limit	14988	14988	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit:	16026	16021	Upper Limit	17616	17616	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters: A-07B Cal 03						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	0800301	
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	0800302	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	0800303	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	0800304	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	0800305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1 - 15	14747	16021	14988	17616	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A & 1B	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:

Joel G. Godwin / III / 24 Apr. 05

*Joel G. Godwin*

Page 36/140



**IHI SOUTHWEST TECHNOLOGIES  
AUTOMATED ULTRASONIC EXAMINATION RECORD**

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-4
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 78°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSHI&4DS	Exam Date	Examination Time
Data Acquisition Operator (s) / SNT Level: Alan Schaefer / N/A		24 Apr. 04	Start End
		1528 1536	Start End
		85 85	

**Data Acquisition**

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	14766	14749	Lower Limit	17563	17563	Beam Direction:	Up/Dn
Scan:	Y Axis	Upper Limit	16026	16021	Upper Limit	20191	20191	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (180)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters:						Calibration Records:	Examination Notes:
Status	A-07A	Cal 03	Direction	Scan Offset	Step Offset		
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)	PNS-03	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)	0800301	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)	0800302	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	0800303	
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)	0800304	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	0800305	Entergy/Pilgrim Procedure TP04-020
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

**Data Analysis**

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop					
1 - 15	14749	16021	17563	20191	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Archive Tape/CD No.:	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A & 1B	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B	

Analyst / SNT Level / Date:

Joel G. Godwin / III / 24 Apr. 05

*Joel A. Godwin*

Page 37/140



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-5
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 78°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH1&4DS	Exam Date	Examination Time
Data Acquisition Operator (s) / SNT Level: Alan Schaefer / N/A		24 Apr. 04	Start End
		1547	1552
		Start	End
		85	85

## Data Acquisition

Scan Controller Parameters	Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters
Controller: ID Device	Lower Limit	14766	14748	Lower Limit	20138	20138	Beam Direction: Up/Dn
Scan: Y Axis	Upper Limit	16026	16013	Upper Limit	22766	22766	Transducer Size: 1.00
Increment: X Axis	Increment Interval	90		DCI	4		Code % of Overlap: 10
Mode: Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans: 15
Scan Motion: Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position: D (180)
Correction: Default	EDAS Radius In.	113.10					

Module Parameters:	A-07A	Cal 03				Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	Check for limitations due to the proximity of the jet pump diffuser
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)	0800301	and the baffle plate.
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)	0800302	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)	0800303	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	0800304	Examination Remarks:
Channel 5	On	OT	(+)	+ 0.00(in)	- 1.69(in)	0800305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1 - 15	14748	16012	20138	22766	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:
					Channel 5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A & 1B
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date: Joel G. Godwin / III / 24 Apr. 05



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338A	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-6
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 78°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH1&4DS	Exam Date: 24 Apr. 04	Examination Time: Start 1557, End 1604
Data Acquisition Operator (s) / SNT Level: Alan Schaefer / N/A			Surface Temperature °F: Start 85, End 85

## Data Acquisition

Scan Controller Parameters	Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters
Controller: ID Device	Lower Limit	14766	14750	Lower Limit	22713	22713	Beam Direction: Up/Dn
Scan: Y Axis	Upper Limit	16026	16033	Upper Limit	25341	25341	Transducer Size: 1.00
Increment: X Axis	Increment Interval	90		DCI	4		Code % of Overlap: 10
Mode: Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans: 15
Scan Motion: Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position: D (180)
Correction: Default	EDAS Radius In.	113.10					

Module Parameters:	A-07A	Cal 03				Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)	0800301	
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)	0800302	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)	0800303	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	0800304	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)	0800305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 15	14750	16034	22713	25341	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date: Joel G. Godwin / III / 24 Apr. 05 *Joel G. Godwin*

809 39/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-7
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 78°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH1&4DS	Exam Date: 24 Apr. 05	Surface Temperature °F
Data Acquisition Operator (s) / SNT Level: Richard Riddles / II		Examination Time	
		Start: 2228	End: 2240
		Start: 80	End: 80

## Data Acquisition

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm		Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	10488		14718	Lower Limit	14646		14646	Beam Direction:	Ccw/Cw
Scan:	X Axis	Upper Limit	17508		17508	Upper Limit	16146		16146	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90			DCI	4			Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100			Conversion Counts	100			Number of Scans:	79
Scan Motion:	Bi-directional	Conversion Units In.	1.00			Conversion Units In.	1.00			Device Position:	A (0)
Correction:	Default	EDAS Radius In.	113.10								

Module Parameters: A-07-1D Cal 33						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-33	
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	0803301	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	0803302	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	0803303	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	0803304	Examination Remarks:
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)	0803305	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	Limited exam due to vessel baffle plate gusset.
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
48 - 80	14707	17508	14646	16146	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Joel G. Godwin*





# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-8
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 78°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSHI&4DS	Exam Date: 24 Apr. 05	Examination Time: Start 2345, End 0011
Data Acquisition Operator (s) / SNT Level: Richard Riddles / II			Surface Temperature °F: Start 80, End 80

## Data Acquisition

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	17418		17418	Lower Limit	14646	14646	Beam Direction:	CCW/CW
Scan:	X Axis	Upper Limit	24438		24438	Upper Limit	16146	16146	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90			DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100			Conversion Counts	100		Number of Scans:	79
Scan Motion:	Bi-directional	Conversion Units In.	1.00			Conversion Units In.	1.00		Device Position:	A (0)
Correction:	Default	EDAS Radius In.	113.10							

Module Parameters:						Calibration Records:	Examination Notes:
	Status	A-07-1D Angle	Cal 33 Direction	Scan Offset	Step Offset		
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	PNS-33	Check for limitations due to the proximity of the jet pump diffuser and the baffle plate.
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	0803301	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	0803302	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	0803303	
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)	0803304	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	0803305	Enter/Pilgrim Procedure TP04-020
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Start	Stop	Start	Stop					
1 - 79	17418	24438	14646	16146	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 1A & 1B	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis Tape/CD No.: A & B	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:

Joel G. Godwin / III / 25 Apr. 05

*Paul A. Godwin*

# ISWT EXAMINATION SUMMARY RECORD

Project No.: 02-0285

PILGRIM STATION

Summary Sheet No.: 000300

**SITE:** PILGRIM STATION  
**SYSTEM:** REACTOR PRESSURE VESSEL  
**LINE/SUBASSEMBLY:** RING 1 VERTICAL WELD @ 318-DEGREES  
**IDENTIFICATION:** RPV-L-2-338C

NDE Method	Proc/Rev/Chg/ICN	NDE Examination	Calibration Sheet No.	Data Sheet No.	N O R T I H	Resolution Record	CNF Number	Remarks
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT45	0803401	exam 18	X -	N/A	N/A	Examination no's 17 - 18.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55	0803402	exam 18	X -	N/A	N/A	AUTO for thickness measurement only.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40	0803403,0803404	exam 18	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40	0803405	exam 18	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55T	0802305,0802302	exam 17	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40T	0802303,0802304	exam 17	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	0802305	exam 17	X -	N/A	N/A	

- NOTES:
1. Weld RPV-L-2-338C was examined from the inside surface using AIRIS-21 and EDAS-II examination equipment.
  2. No recordable indications were detected during this examination.
  3. The examination was limited due to proximity of baffle plate, baffle plate gusset, jet pump diffusers, core shroud tie rod, and the N2K nozzle, 25% examination coverage was achieved.
  4. Examination 18 was divided into 3 segments 18a, 18b, and 18c.

\*\*\*UT CALIBRATION BLOCK(s)\*\*\*  
 \*\*D-70187-2/D70389-1\*\*

Prepared by: Steven J. Todd  
 Steven J. Todd - Project Engineer

Date: 4/30/05

Page 1 of 1

Summary Sheet No.: 000300

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*8092 42/140*



## IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338C	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-17a
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 318°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1A	Scan Path Drawing: SPLONGSH1&4SS	Exam Date: 26 Apr. 05	Examination Time: Start 0255, End 0309
Data Acquisition Operator (s) / SNT Level: Richard Riddles / II			Surface Temperature °F: Start 88, End 88

### Data Acquisitions

Scan Controller Parameters	Increment Axis/Device	Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters
Controller: ID Device	Lower Limit	62139	62139	Lower Limit	9888	14050	Beam Direction: Up/Dn
Scan: Y Axis	Upper Limit	63399	62693	Upper Limit	25040	15550	Transducer Size: 1.00
Increment: X Axis	Increment Interval	90		DCI	4		Code % of Overlap: 10
Mode: Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans: 15
Scan Motion: Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position: A (90)
Correction: Default	EDAS Radius In.	113.10					

Module Parameters: A-07-1A Cal 23						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset		
Channel 1	On	55	(+)	- 7.00(in)	+ 0.00(in)	PNS-23	Check for limitations due to the proximity of the jet pump diffusers, the tie rod, the N2 nozzle, and the baffle plate.
Channel 2	On	55	(-)	+ 7.00(in)	+ 0.00(in)	0802301	
Channel 3	On	SLIC-40	(+)	- 4.40(in)	+ 1.00(in)	0802302	
Channel 4	On	SLIC-40	(-)	+ 4.40(in)	- 1.00(in)	0802303	
Channel 5	On	0T	(+)	- 4.40(in)	- 1.00(in)	0802304	
Channel 6	Off	N/A	N/A	N/A	N/A	0802305	Examination Remarks:
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	Entergy/Pilgrim Procedure TP04-020
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	Limited exam due to the proximity of the baffle plate.

### Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 8	62139	62693	14050	15550	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 2A & 2B Analysis Tape/CD No.: A & B	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:	Joel G. Godwin / III / 26 Apr. 05	<i>Joel G. Godwin</i>
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809 43/140



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338C	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-18a
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 318°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-08D	Scan Path Drawing: SPLONGSH1&4SS	Exam Date: 25 Apr. 05	Examination Time: 1719 - 1810
Data Acquisition Operator (s) / SNT Level: D. Kleinjan / II			Surface Temperature °F: 88 - 88

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	10419	13898	Lower Limit	62178	62178	Beam Direction:	Ccw
Scan:	X Axis	Upper Limit	24549	15657	Upper Limit	63986	63986	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	158
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (90)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters: A-08D Cal 34						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-34	
Channel 1	On	45	(-)	- 1.40(in)	+ 1.21(in)	0803401	Check for limitations due to the proximity of the jet pump diffusers, the tie rod, the N2 nozzle, and the baffle plate.
Channel 2	On	55	(-)	+ 1.40(in)	+ 1.21(in)	0803402	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	0803403	
Channel 4	On	SLIC-40	(-)	+ 1.97(in)	- 1.69(in)	0803404	Examination Remarks:
Channel 5	On	SLIC-40	(+)	+ 0.00(in)	- 1.69(in)	0803405	Entergy/Pilgrim Procedure TP04-020
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	Limited exam due to the jet pump diffusers.
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
41 - 59	13898	15657	62178	63986	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:

Joel G. Godwin / III / 26 Apr. 05

*Joel G. Godwin*

Page 44/440



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338C	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-186	
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 318°	Device Configuration: D-PNPS-102		
Mod.Conf.: A-08D	Scan Path Drawing: SPLONGSH1&4SS	Exam Date	Examination Time	Surface Temperature °F
Data Acquisition Operator (s) / SNT Level: D. Kleinjan / II		25 Apr. 05	Start 1819	End 1855
			Start 88	End 88

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	10419	15728	Lower Limit	62178	62178	Beam Direction:	Ccw
Scan:	X Axis	Upper Limit	24549	19382	Upper Limit	63986	63986	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	158
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (90)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters:						Calibration Records:	Examination Notes:
	Status	A-08D Angle	Cal 34 Direction	Scan Offset	Step Offset		
Channel 1	On	45	(-)	- 1.40(in)	+ 1.21(in)	PNS-34	Check for limitations due to the proximity of the jet pump diffusers,
Channel 2	On	55	(-)	+ 1.40(in)	+ 1.21(in)	0803401	the tie rod, the N2 nozzle, and the baffle plate.
Channel 3	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	0803402	
Channel 4	On	SLIC-40	(-)	+ 1.97(in)	- 1.69(in)	0803403	
Channel 5	On	SLIC-40	(+)	+ 0.00(in)	- 1.69(in)	0803404	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	0803405	Entergy/Pilgrim Procedure TP04-020
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	Limited exam due to the N2K nozzle.
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop					
60 - 100	15728	19382	62178	63986	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2A & 2B	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B	

Analyst / SNT Level / Date:

Joel G. Godwin / III / 26 Apr. 05

*Joel A. Godwin*

Boyle 45/140



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Nuclear Station	Weld Identification: RPV-L-2-338C	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-18c
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 318°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-08D	Scan Path Drawing: SPLONGSH1&4SS	Exam Date: 25 Apr. 05	Examination Time: Start 2051, End 2145
Data Acquisition Operator (s) / SNT Level: Richard Riddles / II			Surface Temperature °F: Start 88, End 88

## Data Acquisition

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters
Controller:	ID Device	Lower Limit	10419	22029	Lower Limit	62178	62178	Beam Direction: Ccw
Scan:	X Axis	Upper Limit	24549	23019	Upper Limit	63986	63986	Transducer Size: 1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap: 10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans: 158
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position: D (90)
Correction:	Default	EDAS Radius In.	113.10					

Module Parameters:						Calibration Records:	Examination Notes:
	Status	A-08D Angle	Cal 34 Direction	Scan Offset	Step Offset		
Channel 1	On	45	(-)	- 1.40(in)	+ 1.21(in)	PNS-34	Check for limitations due to the proximity of the jet pump diffusers, the tie rod, the N2 nozzle, and the baffle plate.
Channel 2	On	55	(-)	+ 1.40(in)	+ 1.21(in)	0803401	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	0803402	
Channel 4	On	SLIC-40	(-)	+ 1.97(in)	- 1.69(in)	0803403	
Channel 5	On	SLIC-40	(+)	+ 0.00(in)	- 1.69(in)	0803404	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	0803405	Entergy/Pilgrim Procedure TP04-020
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	Limited exam due to the N2K nozzle.
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

## Data Analysis

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Start	Stop	Start	Stop					
130 - 141	21924	23019	62178	63986	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2A & 2B	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A & B	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date: Joel G. Godwin / III / 26 Apr. 05 *Paul S. Godwin*



Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	38452		Lower Limit	9838		Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	39712		Upper Limit	12466		Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.10						

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Start	Stop	Start	Stop					
					Channel 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1-May-03



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-338B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-10
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 198°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSHI&4DS	Exam Date: 1-May-03	Examination Time: Start 1235, End 1250
Data Acquisition Operator (s) / SNT Level: Harper Jacoby	N/A		Surface Temperature °F: Start 87, End 87

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	38452	38451	Lower Limit	12413	13700	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	39712	39712	Upper Limit	15041	15041	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters: A-07B Cal 03						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	80031	Check for limitations due to the proximity of the jet pump diffuser, the N1 nozzle, and the baffle plate.
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	80032	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	80033	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	80034	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	80035	Limited exam due to proximity of baffle plate gusset.
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 5	38471	39552	13621	15041	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
6 - 15	38909	39728	13700	15041	Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date: Hector Diaz	III	1-May-03
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Page 48/140





# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-338B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-11
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 198°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH1&4DS	Exam Date: 1-May-03	Surface Temperature 9F
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A		Start: 1256	End: 1314

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	38452	38452	Lower Limit	14988	14988	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	39712	39712	Upper Limit	17616	17616	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters: A-07B Cal 03						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	Check for limitations due to the proximity of the jet pump diffuser, the N1 nozzle, and the baffle plate.
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	80031	
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	80032	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	80033	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	80034	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	80035	
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 15	38451	39712	14988	17616	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 5A	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis Tape/CD No.: 1A	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:  
Hector Diaz

*Hector Diaz*

III

1-May-03



Module Parameters:						Calibration Records:	Examination Notes:
Status	A-07A Angle	Cal 03 Direction	Scan Offset	Step Offset	PNS-03		
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)	80031	Check for limitations due to the proximity of the jet pump diffuser, the N1 nozzle, and the baffle plate.
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)	80032	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)	80033	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	80034	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)	80035	
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Analyst / SNT Level / Date:  
Hector Diaz *Hector Diaz* III 1-May-03

Boog 50/140



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-338B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-13
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 198°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH1&4DS	Exam Date: 1-May-03	Surface Temperature °F
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A		Examination Time	
		Start: 1414	End: 1425
		Start: 87	End: 87

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	38452	38452	Lower Limit	20138	20138	Beam Direction:	Up/Dn
Scan:	Y Axis	Upper Limit	39712	39712	Upper Limit	22766	22766	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (180)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters: A-07A Cal 03						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset		
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)	PNS-03	Check for limitations due to the proximity of the jet pump diffuser, the N1 nozzle, and the baffle plate.
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)	80031	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)	80032	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	80033	
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)	80034	
Channel 6	Off	N/A	N/A	N/A	N/A	80035	Examination Remarks:
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Start	Stop	Start	Stop					
1 - 15	38451	39714	20138	22766	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Archive Tape/CD No.: 5A Analysis Tape/CD No.: 1A
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date:  
Hector Diaz

*Hector Diaz*

III

1-May-03



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-338B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-14
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 198°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH1&4DS	Exam Date: 1-May-03	Surface Temperature °F: 87
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A		Examination Time: Start 1433, End 1443	Start 87, End 87

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	38452	38452	Lower Limit	22713	22241	Beam Direction:	Up/Dn
Scan:	Y Axis	Upper Limit	39712	39712	Upper Limit	25341	25341	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (180)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters: A-07A Cal 03						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)	80031	Check for limitations due to the proximity of the jet pump diffuser, the NI nozzle, and the baffle plate.
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)	80032	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)	80033	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	80034	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)	80035	
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop	Channel 1	Channel 2	Channel 3		
1 - 15	38451	39694	22713	25341	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					Channel 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					Channel 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Analyst / SNT Level / Date: Hector Diaz	III	1-May-03
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# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-338B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT.1/0/0/1,2	Examination No.: ID-15
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 198°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-ID	Scan Path Drawing: SPLONGSH1&4DS	Exam Date: 1-May-03	Examination Time: Start 0543, End 0600
Data Acquisition Operator(s) / SNT Level: R.A. Riddles / II			Surface Temperature °F: Start 87, End 87

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm		Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	10488		13635	Lower Limit	38332		38332	Beam Direction:	Ccw/Cw
Scan:	X Axis	Upper Limit	17508		17508	Upper Limit	39832		39832	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90			DCI	4			Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100			Conversion Counts	100			Number of Scans:	79
Scan Motion:	Bi-directional	Conversion Units In.	1.00			Conversion Units In.	1.00			Device Position:	Λ (0)
Correction:	Default	EDAS Radius In.	113.10								

Module Parameters: A-07-ID Cal 33						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-33	Check for limitations due to the proximity of the jet pump diffuser, the N1 nozzle, and the baffle plate.
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80331	
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80333	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80334	Examination Remarks:
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80335	Limited exam due to proximity of baffle plate gusset.
Channel 6	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	Channel 6 inactive.
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
36 - 79	13631	17569	38332	39832	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation Required:
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 5A
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis Tape/CD No.: 1A
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date: Hector Diaz	III	1-May-03
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# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-338B	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-16
Project No.: 02-0285	Weld Description: Ring 1 Vert @ 198°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1C	Scan Path Drawing: SPLONGSH1&4DS	Exam Date: 1-May-03	Examination Time: Start 0603, End 0648
Data Acquisition Operator (s) / SNT Level: R.A. Riddles / II			Surface Temperature: Start 87, End 87

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	17418	17431	Lower Limit	38332	38332	Beam Direction:	Cw/Ccw
Scan:	X Axis	Upper Limit	24438	24432	Upper Limit	39832	39832	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	79
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (180)
Correction:	Default	EDAS Radius In.	113.10						

Module Parameters: A-07-1C Cal 33						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset		
Channel 1	On	55	(+)	- 7.00(in)	+ 0.00(in)	PNS-33	Check for limitations due to the proximity of the jet pump diffuser, the N1 nozzle, and the baffle plate.
Channel 2	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80331	
Channel 3	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80332	
Channel 4	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80333	
Channel 5	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80334	
Channel 6	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80335	
Channel 7	Off	N/A	N/A	N/A	N/A	80336	Examination Remarks: Limited exam due to proximity of the N2F nozzle.
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 20	17431	19155	38332	39832	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Channel 6 inactive.
21 - 34	19237	20410	38332	39050	Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
35 - 43	20499	21175	38332	39090	Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
44 - 50	21284	21804	38332	38950	Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
51 - 73	21897	23886	38332	39560	Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
74 - 79	23978	24427	38332	39832	Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date: Hector Diaz	III	1-May-03
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# ISwT EXAMINATION SUMMARY RECORD

Project No.: 02-0285

PILGRIM NUCLEAR POWER STATION

Summary Sheet No.: 000700

**SITE:** PILGRIM STATION  
**SYSTEM:** REACTOR PRESSURE VESSEL  
**LINE/SUBASSEMBLY:** RING 3 VERTICAL WELD @ 356-DEGREES  
**IDENTIFICATION:** RPV-L-2-339A

NDE Method	Proc/Rev/Chg/ICN	NDE Examination	Calibration Sheet No.	Data Sheet No.	N O R T I H	Resolution Record	CNF Number	Remarks
AUT	ISwT-PDI-AUT1/0/0/1,2	AUTO	80335,80336	exam 43-46	X -	N/A	N/A	Examination no's 39-46.
AUT	ISwT-PDI-AUT1/0/0/1,2	AUT55	80331,80332	exam 43-46	X -	N/A	N/A	AUTO for thickness measurement only.
AUT	ISwT-PDI-AUT1/0/0/1,2	AUTSLIC40	80333,80334	exam 43-46	X -	N/A	N/A	
AUT	ISwT-PDI-AUT1/0/0/1,2	AUT55T	80031,80032	exam 39-42	X -	N/A	N/A	
AUT	ISwT-PDI-AUT1/0/0/1,2	AUTSLIC40T	80033,80034	exam 39-42	X -	N/A	N/A	
AUT	ISwT-PDI-AUT1/0/0/1,2	AUTO	80035	exam 39-42	X -	N/A	N/A	

- NOTES:
1. Weld RPV-L-2-339A was examined from the inside surface using AIRIS-21 and EDAS-II examination equipment.
  2. No recordable indications were detected during this examination.
  3. The examination was limited due to proximity of feedwater and core spray spargers, 81% examination coverage was achieved.

\*\*\*\*UT CALIBRATION BLOCK(s)\*\*\*\*  
 \*\*D-70187-2/D70380 1\*\*

Prepared by: Steven J. Todd  
 Steven J. Todd - Project Engineer

Date: 04-May-03

Page 1 of 1

Summary Sheet No.: 000700

Page 55/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339A	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-39
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 356°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH2&3DS	Exam Date	Examination Time
Data Acquisition Operator (s) / SNT Level:		28-Apr-03	Start End
Harper Jacoby	N/A	1154	1206
		Start End	Start End
		96	96

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	69950	69950	Lower Limit	38750	38750	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	71210	71210	Upper Limit	42814	42814	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07B Cal 03						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	80031	Check for limitations due to the proximity of the feedwater and core spray spargers and the guide rod.
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	80032	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	80033	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	80034	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	80035	
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop					
1 - 15	69950	71210	38750	42806	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3A
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A

Analyst / SNT Level / Date:  
Hector Diaz

*Hector Diaz*

III

29-Apr-03

Page 56/240





# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-40
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 356°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 28-Apr-03	Surface Temperature °F
Data Acquisition Operator(s) / SNT Level: Harper Jacoby / N/A		Start: 1129	End: 1144
		Start: 96	End: 96

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	69950	69950	Lower Limit	42763	42763	Beam Direction:	Up/Dn
Scan:	Y Axis	Upper Limit	71210	71210	Upper Limit	46827	46827	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (180)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters:						Cal 03	Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset			
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)		PMS-03	Check for limitations due to the proximity of the feedwater and core spray spargers and the guide rod.
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)		80031	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)		80032	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)		80033	
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)		80034	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A		80035	Limited exam due to proximity of core spray sparger.
Channel 7	Off	N/A	N/A	N/A	N/A		N/A	
Channel 8	Off	N/A	N/A	N/A	N/A		N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop					
1 - 7	69950	70339	42763	46115	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
6 - 15	70351	71210	42763	46827	Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation Required:	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3A	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:  
Hector Diaz  
*Hector Diaz*



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339A	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-41
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 356°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 28-Apr-03	Examination Time: Start 0936, End 0956
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A			Surface Temperature °F: Start 96, End 96

Scan Controller Parameters	Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters
Controller: ID Device	Lower Limit	69950	69950	Lower Limit	46776	46760	Beam Direction: Dn/Up
Scan: Y Axis	Upper Limit	71210	71210	Upper Limit	52096	50400	Transducer Size: 1.00
Increment: X Axis	Increment Interval	90		DCI	4		Code % of Overlap: 10
Mode: Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans: 15
Scan Motion: Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position: D (0)
Correction: Default	EDAS Radius In.	113.60					

Module Parameters:	A-07B	Cal 03	Calibration Records:	Examination Notes:			
Status	Angle	Direction	Scan Offset	Step Offset	PNS-03	Check for limitations due to the proximity of the feedwater and core spray spargers and the guide rod.	
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	80031	
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	80032	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	80033	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	80034	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	80035	Limited exam due to proximity of core spray sparger.
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1 - 15	69950	71210	46760	50400	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Further Evaluation Required:	
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Archive Tape/CD No.:	
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3A	
					Channel 6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A	
					Channel 8	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:  
Hector Diaz

*Hector Diaz*

III

29-Apr-03

Page 58/140



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-42
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 356°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 28-Apr-03	Surface Temperature °F: Start 96, End 96
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A		Examination Time: Start 1004, End 1010	

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	69950	69950	Lower Limit	46776	50300	Beam Direction:	Up/Dn
Scan:	Y Axis	Upper Limit	71210	71210	Upper Limit	51744	51744	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (180)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters:						Cal 03	Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)		80031	Check for limitations due to the proximity of the feedwater and core spray spngers and the guide rod.
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)		80032	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)		80033	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)		80034	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)		80035	Limited exam due to proximity of core spray sparger.
Channel 6	Off	N/A	N/A	N/A	N/A		N/A	
Channel 7	Off	N/A	N/A	N/A	N/A		N/A	
Channel 8	Off	N/A	N/A	N/A	N/A		N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1 - 15	69950	71210	50300	51700	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3A	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date: Hector Diaz  
III  
29-Apr-03

Page 59/140



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-43
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 356°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 29-Apr-03	Examination Time: Start 0150, End 0202
Data Acquisition Operator(s) / SNT Level: R.A. Riddles / II			Surface Temperature °F: Start 87, End 78

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	39650	39638	Lower Limit	69830	69830	Beam Direction:	Ccw/Cw
Scan:	X Axis	Upper Limit	43340	43330	Upper Limit	71330	71330	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	42
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (0)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07-1D Cal 33						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-33	
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80331	Check for limitations due to the proximity of the feedwater and core spray spargers and the guide rail.
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80333	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80334	Examination Remarks:
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80335	
Channel 6	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Channel 6 inactive.
	Start	Stop	Start	Stop					
1 - 42	39646	43340	69830	71330	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 4A	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis Tape/CD No.: 1A	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date: Hector Diaz	III	29-Apr-03
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# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-44
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 356°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1C	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 29-Apr-03	Examination Time: Start 0213, End 222
Data Acquisition Operator (s) / SNT Level: R.A. Riddles / II			Surface Temperature °F: Start 87, End 78

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	43213	43215	Lower Limit	69830	69830	Beam Direction:	Cw/Ccw
Scan:	X Axis	Upper Limit	46903	45114	Upper Limit	71330	71330	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	42
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (180)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07-1C Cal 33						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset	PNS-33	
Channel 1	On	55	(+)	- 7.00(in)	+ 0.00(in)	80331	Check for limitations due to the proximity of the feedwater and core spray spargers and the guide rod.
Channel 2	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80333	
Channel 4	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80334	Examination Remarks:
Channel 5	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80335	Limited exam due to proximity of core spray sparger.
Channel 6	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 22	43213	45108	69830	71330	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Channel 6 inactive.
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Analyst / SNT Level / Date: Hector Diaz	III	29-Apr-03
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# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-45
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 356°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 29-Apr-03	Surface Temperature °F:
Data Acquisition Operator (s) / SNT Level: R.A. Riddles / II		Examination Time: Start: 0213 End: 0222	Start: 87 End: 78

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	46776	47745	Lower Limit	69830	69830	Beam Direction:	Ccw/Cw
Scan:	X Axis	Upper Limit	51186	50620	Upper Limit	71330	71330	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	50
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (0)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07-1D Cal 33						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset		
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	PNS-33	Check for limitations due to the proximity of the feedwater and core spray spargers and the guide rod.
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	80331	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80332	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80333	
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80334	Examination Remarks:
Channel 6	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80335	Limited exam due to proximity of core spray sparger.
Channel 7	Off	N/A	N/A	N/A	N/A	80336	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
12 - 44	47738	50620	69830	71330	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Channel 6 inactive.
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Analyst / SNT Level / Date: Hector Diaz	III	29-Apr-03
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Page 62/740



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339A	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-46
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 356°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1C	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 29-Apr-03	Examination Time: Start 0116, End 0121
Data Acquisition Operator(s) / SNT Level: R.A. Riddles			Surface Temperature °F: Start 87, End 78

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm		Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	46776	50533	Lower Limit	69830	69830	Beam Direction:	Ccw/Cw	Transducer Size:	1.00
Scan:	X Axis	Upper Limit	51276	51296	Upper Limit	71330	71330	Code % of Overlap:	10	Number of Scans:	51
Increment:	Y Axis	Increment Interval	90		DCI	4		Device Position:	A (180)		
Mode:	Manual Scan	Conversion Counts	100		Conversion Counts	100					
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00					
Correction:	Default	EDAS Radius In.	113.60								

Module Parameters: A-07-1C Cal 33						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-33	Check for limitations due to the proximity of the feedwater and core spray spargers and the guide rod.
Channel 1	On	55	(+)	- 7.00(in)	+ 0.00(in)	80331	
Channel 2	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80333	
Channel 4	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80334	Examination Remarks:
Channel 5	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80335	Limited exam due to proximity of core spray sparger.
Channel 6	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	Channel 6 inactive.
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
43 - 51	50617	51281	69830	71330	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation Required:	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4A	
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:  
Hector Diaz

*Hector Diaz*

III

29-Apr-03







# ISWT EXAMINATION SUMMARY RECORD

Project No.: 02-0285

PILGRIM NUCLEAR POWER STATION

Summary Sheet No.: 000800

**SITE:** PILGRIM STATION  
**SYSTEM:** REACTOR PRESSURE VESSEL  
**LINE/SUBASSEMBLY:** RING 3 VERTICAL WELD @ 116-DEGREES  
**IDENTIFICATION:** RPV-L-2-339B

NDE Method	Proc/Rev/Chg/ICN	NDE Examination	Calibration Sheet No.	Data Sheet No.	N O R T I H	Resolution Record	CNF Number	Remarks
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	80335,80336	exam 51-54	X -	N/A	N/A	Examination no's 47-54.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55	80331,80332	exam 51-54	X -	N/A	N/A	AUTO for thickness measurement only.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40	80333,80334	exam 51-54	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55T	80031,80032	exam 47-50	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40T	80033,80034	exam 47-50	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	80035	exam 47-50	X -	N/A	N/A	

**NOTES:**

1. Weld RPV-L-2-339B was examined from the inside surface using AIRIS-21 and EDAS-II examination equipment.
2. No recordable indications were detected during this examination.
3. The examination was limited due to proximity of feedwater and core spray spargers and ID taper at circ weld C-3-339A, 75% examination coverage was achieved. ID taper configuration in this area was greater (more severe) than experienced for welds RPV-L-2-339A and RPV-L-2-339C, resulting in slightly less examination coverage on this weld.

\*\*\*\*UT CALIBRATION BLOCK(s)\*\*\*\*

\*\*D-70187-2/D70399.1\*\*

Prepared by:

*Steven J. Todd*  
 Steven J. Todd - Project Engineer

Date: 2 July 2003

Page 1 of 1

Summary Sheet No.: 000800

Page 65/140



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Station	Weld Identification: RPV-L-2-339B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-47
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 116°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH2&3DS	Exam Date	Examination Time
Data Acquisition Operator (s) / SNT Level: R.A. Riddles / II		28-Apr-03	Start End 2006 2019
			Surface Temperature °F Start End 87 87

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	22368	22348	Lower Limit	38750	38750	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	23628	23615	Upper Limit	42814	42402	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07B Cal 03						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset	PNS-03	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	80031	
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	80032	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	80033	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	80034	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	80035	Limited exam due to proximity of core spray sparge.
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop	Channel 1	Channel 2	Channel 3		
1 - 11	22376	23144	38750	42402	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
12	23317	-	39434	42402	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
13 - 15	23481	33628	39674	42402	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date: Hector Diaz	III	29-Apr-03
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# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant : Pilgrim Station	Weld Identification: RPV-L-2-339B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-48
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 116°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH2&3DS	Exam Date	Examination Time
Data Acquisition Operator (s) / SNT Level:		28-Apr-03	Start End
R.A. Riddles / II		2028 2036	87 87

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	22368	22348	Lower Limit	42763	42400	Beam Direction:	Up/Dn
Scan:	Y Axis	Upper Limit	23628	23628	Upper Limit	46827	44800	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (180)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters:						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset		
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)	PNS-03	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)	80031	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)	80032	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	80033	
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)	80034	
Channel 6	Off	N/A	N/A	N/A	N/A	80035	Examination Remarks: Limited exam due to proximity of core spray sparge.
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop					
1 - 15	22368	23628	42390	44815	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4AA	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A	

Analyst / SNT Level / Date:  
Hector Diaz

III

29-Apr-03

Page 67/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-49
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 116°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 28-Apr-03	Examination Time: Start 1810, End 1919
Data Acquisition Operator (s) / SNT Level: Steven J. Todd / III			Surface Temperature °F: Start 96, End 96

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	22368	22368	Lower Limit	46776	47550	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	23628	23628	Upper Limit	52096	48350	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07B Cal 03						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-03	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	80031	
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	80032	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	80033	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	80034	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	80035	Limited exam due to proximity of core spray, feedwater spargers
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	and ID taper on weld RPV-C-3-339A.
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 15	22343	23549	47550	48350	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date: Hector Diaz	III	29-Apr-03
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# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-50
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 116°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 28-Apr-03	Examination Time: Start 1730, End 1810
Data Acquisition Operator(s) / SNT Level: R.A. Riddles / II			Surface Temperature °F: Start 96, End 96

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	22368	22345	Lower Limit	46776	50300	Beam Direction:	Up/Dn
Scan:	Y Axis	Upper Limit	23628	23591	Upper Limit	52096	52092	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (180)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07A Cal 03						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset		
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)	FNS-03	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)	80031	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)	80032	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	80033	
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)	80034	Examination Remarks:
Channel 6	Off	N/A	N/A	N/A	N/A	80035	Limited exam due to proximity of core spray and feedwater spargers.
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Start	Stop	Start	Stop					
1 - 15	22368	23628	50300	52096	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date:  
Hector Diaz

*Hector Diaz*

III

29-Apr-03

Page 69/740



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339B	Pro/Rev/Chg/ICN: ISWT-EDI-AUT1/0/0/1,2	Examination No.: ID-51
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 116°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 27-Apr-03	Examination Time: Start 2027, End 2102
Data Acquisition Operator(s) / SNT Level: R.A. Riddles	I II		Surface Temperature °F: Start 96, End 96

Scan Controller Parameters	Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters
Controller: ID Device	Lower Limit	39650	39637	Lower Limit	22248	22248	Beam Direction: Ccw/Cw
Scan: X Axis	Upper Limit	43340	40783	Upper Limit	23748	23748	Transducer Size: 1.00
Increment: Y Axis	Increment Interval	90		DCI	4		Code % of Overlap: 10
Mode: Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans: 42
Scan Motion: Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position: A (0)
Correction: Default	EDAS Radius In.	113.60					

Module Parameters:	A-07-1D	Cal 33				Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-33	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80331	
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80333	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80334	Examination Remarks:
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80335	Limited exam due to proximity of the Core Spray Sparger.
Channel 6	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 14	39666	40807	22248	23748	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Channel 6 inactive.
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date:	Hector Diaz	III	29-Apr-03
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Page 70/240



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-52
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 116°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1C	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 27-Apr-03	Examination Time: Start 2118, End 2251
Data Acquisition Operator(s) / SNT Level: R.A. Riddles / II			Surface Temperature °F: Start 96, End 96

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	43213	40820	Lower Limit	22248	22248	Beam Direction:	Cw/Ccw
Scan:	X Axis	Upper Limit	46903	45017	Upper Limit	23748	23748	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	42
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (180)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07-1C Cal 33						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset	PNS-33	
Channel 1	On	55	(+)	- 7.00(in)	+ 0.00(in)	80331	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 2	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80333	
Channel 4	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80334	Examination Remarks:
Channel 5	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80335	Limited exam due to proximity of the Core Spray Sparger.
Channel 6	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 50	40795	45017	22248	23748	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Channel 6 inactive.
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date: Hector Diaz	III	29-Apr-03
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# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-53
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 116°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 27-Apr-03	Examination Time: Start 1844, End 1905
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A			Surface Temperature °F: Start 96, End 96

Scan Controller Parameters		Increment Axis/Device	Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	46776	47465	Lower Limit	22248	22248	Beam Direction:	Ccw/Cw
Scan:	X Axis	Upper Limit	51186	50037	Upper Limit	23748	23748	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	50
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (0)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07-1D Cal 33						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-33	
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80331	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80333	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80334	Examination Remarks:
Channel 5	On	OT	(+)	+ 4.40(in)	- 1.00(in)	80335	Limited exam due to proximity of the Core Spray Sparger.
Channel 6	On	OT	(+)	- 4.40(in)	+ 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
9 - 37	47468	50016	22248	23725	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 3A	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis Tape/CD No.: 1A	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:  
Hector Diaz

III

29-Apr-03

Page 72/140





# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339B	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-54
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 116°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1C	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 27-Apr-03	Examination Time: Start 1820, End 1825
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A			Surface Temperature °F: Start 96, End 96

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm		Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	46776		49824	Lower Limit	22248		22248	Beam Direction:	Cw/Ccw
Scan:	X Axis	Upper Limit	51186		51194	Upper Limit	23748		23748	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90			DCI	4			Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100			Conversion Counts	100			Number of Scans:	50
Scan Motion:	Bi-directional	Conversion Units In.	1.00			Conversion Units In.	1.00			Device Position:	A (180)
Correction:	Default	EDAS Radius In.	113.60								

Module Parameters: A-07-1C Cal 33						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset	PNS-33	
Channel 1	On	55	(+)	- 7.00(in)	+ 0.00(in)	80331	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 2	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80333	
Channel 4	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80334	Examination Remarks:
Channel 5	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80335	Limited exam due to proximity of the Core Spray Sparger.
Channel 6	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
35 - 50	49828	51186	22248	23748	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation Required:	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:	
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3A	
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis Tape/CD No.:	
					Channel 6 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1A	
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

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Hector Diaz

*Hector Diaz*

III

29-Apr-03

Page 73/140

Page 74/240

# ISWT EXAMINATION SUMMARY RECORD

Project No.: 02-0285

PILGRIM NUCLEAR POWER STATION

Summary Sheet No.: 000900

**SITE:** PILGRIM STATION  
**SYSTEM:** REACTOR PRESSURE VESSEL  
**LINE/SUBASSEMBLY:** RING 3 VERTICAL WELD @ 236-DEGREES  
**IDENTIFICATION:** RPV-L-2-339C

NDE Method	Proc/Rev/Chg/ICN	NDE Examination	Calibration Sheet No.	Data Sheet No.	N O R T I H	Resolution Record	CNF Number	Remarks
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	80335,80336	exam 59-62	X -	N/A	N/A	Examination no's 55-62.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55	80331,80332	exam 59-62	X -	N/A	N/A	AUTO for thickness measurement only.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40	80333,80334	exam 59-62	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55T	80031,80032	exam 55-58	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40T	80033,80034	exam 55-58	X -	N/A	N/A	
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	80035	exam 55-58	X -	N/A	N/A	

- NOTES:
1. Weld RPV-L-2-339C was examined from the inside surface using AIRIS-21 and EDAS-II examination equipment.
  2. No recordable indications were detected during this examination.
  3. The examination was limited due to proximity of feedwater and core spray spargers. 83% examination coverage was achieved.

\*\*\*\*UT CALIBRATION BLOCK(s)\*\*\*\*  
 \*\*D-70187-2/D70389-1\*\*

Prepared by:

*Steven J. Todd*  
 Steven J. Todd - Project Engineer

Date: 04-May-03

Page 1 of 1

Summary Sheet No.: 000900

Page 75/140



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339C	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-55
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 236°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 28-Apr-03	Examination Time: Start 1425, End 1432
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A			Surface Temperature °F: Start 96, End 96

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	46159	46160	Lower Limit	38750	38750	Beam Direction:	Dn/Up
Scan:	Y Axis	Upper Limit	47419	47380	Upper Limit	42814	40862	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (0)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07B Cal 03						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset	PNS-03	Check for limitations due to the proximity of the feedwater and core spray spargers.  Examination Remarks:
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	80031	
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	80032	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	80033	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	80034	
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	80035	
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 15	46146	47392	38750	40862	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 3A Analysis Tape/CD No.: 1A	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date: Hector Diaz *Hector Diaz* III 29-Apr-03

Page 76/140



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339C	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-56
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 236°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 28-Apr-03	Examination Time: Start 1324, End 1420
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A			Surface Temperature °F: Start 96, End 96

Scan Controller Parameters				Increment Axis/Arm		Planned		Actual		Scan Axis/Device		Planned		Actual		Positional Parameters	
Controller:	ID Device			Lower Limit	46159			46160		Lower Limit	42763			40763		Beam Direction: Up/Dn	
Scan:	Y Axis			Upper Limit	47419			47420		Upper Limit	46827			44795		Transducer Size: 1.00	
Increment:	X Axis			Increment Interval	90					DCI	4					Code % of Overlap: 10	
Mode:	Automatic Scan			Conversion Counts	100					Conversion Counts	100					Number of Scans: 15	
Scan Motion:	Bi-directional			Conversion Units In.	1.00					Conversion Units In.	1.00					Device Position: D (180)	
Correction:	Default			EDAS Radius In.	113.60												

Module Parameters:						Cal 03		Calibration Records:		Examination Notes:	
	Status	Angle	Direction	Scan Offset	Step Offset			PNS-03	Check for limitations due to the proximity of the feedwater and core spray spargers.		
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)			80031			
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)			80032			
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)			80033			
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)			80034	Examination Remarks:		
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)			80035	Limited exam due to proximity of the core spray line.		
Channel 6	Off	N/A	N/A	N/A	N/A			N/A			
Channel 7	Off	N/A	N/A	N/A	N/A			N/A			
Channel 8	Off	N/A	N/A	N/A	N/A			N/A			

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks		
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	Further Evaluation	Required:
	Start	Stop	Start	Stop						
1 - 15	46159	47318	40763	44840	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
					<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Analyst / SNT Level / Date: Hector Diaz	III	29-Apr-03
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Page 77/270



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339C	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/1,2	Examination No.: ID-57
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 236°	Device Configuration: D-PNPS-102	
Mod.Conf.: A-07B	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 28-Apr-03	Examination Time: Start 1552, End 1611
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A			Surface Temperature °F: Start 96, End 96

Scan Controller Parameters	Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters
Controller: ID Device	Lower Limit	46159	46146	Lower Limit	46776	47550	Beam Direction: Dn/Up
Scan: Y Axis	Upper Limit	47419	47420	Upper Limit	52096	50402	Transducer Size: 1.00
Increment: X Axis	Increment Interval	90		DCI	4		Code % of Overlap: 10
Mode: Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans: 15
Scan Motion: Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position: D (0)
Correction: Default	EDAS Radius In.	113.60					

Module Parameters:	A-07B	Cal 03	Calibration Records:	Examination Notes:			
Status	Angle	Direction	Scan Offset	Step Offset	PNS-03	Check for limitations due to the proximity of the feedwater and core spray spargers.	
Channel 1	On	55	(-)	- 1.40(in)	- 1.21(in)	80031	
Channel 2	On	55	(+)	+ 1.40(in)	- 1.21(in)	80032	
Channel 3	On	SLIC-40	(-)	- 1.97(in)	+ 1.69(in)	80033	
Channel 4	On	SLIC-40	(+)	+ 1.97(in)	+ 1.69(in)	80034	Examination Remarks:
Channel 5	On	0T	(+)	+ 0.00(in)	+ 1.69(in)	80035	Limited exam due to proximity of core spray sparger.
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1 - 15	46159	47414	47550	50402	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3A
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A

Analyst / SNT Level / Date: Hector Diaz	III	29-Apr-03
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# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339C	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-58
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 236°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07A	Scan Path Drawing: SPLONGSH3TOPDS	Exam Date: 28-Apr-03	Surface Temperature °F:
Data Acquisition Operator (s) / SNT Level: Harper Jacoby / N/A		Start: 1617	End: 1621
		Start: 96	End: 96

Scan Controller Parameters		Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	46159	46160	Lower Limit	46776	50300	Beam Direction:	Up/Dn
Scan:	Y Axis	Upper Limit	47419	47460	Upper Limit	51744	51744	Transducer Size:	1.00
Increment:	X Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	15
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	D (180)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters:						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset	PNS-03	Check for limitations due to the proximity of the feedwater and core spray spargers.  Examination Remarks:
Channel 1	On	55	(+)	+ 1.40(in)	+ 1.21(in)	80031	
Channel 2	On	55	(-)	- 1.40(in)	+ 1.21(in)	80032	
Channel 3	On	SLIC-40	(+)	+ 1.97(in)	- 1.69(in)	80033	
Channel 4	On	SLIC-40	(-)	- 1.97(in)	- 1.69(in)	80034	
Channel 5	On	0T	(+)	+ 0.00(in)	- 1.69(in)	80035	
Channel 6	Off	N/A	N/A	N/A	N/A	N/A	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Start	Stop	Start	Stop					
1 - 15	46159	47451	50300	51700	Channel 1 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 3A	
					Channel 2 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis Tape/CD No.: 1A	
					Channel 3 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 4 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 5 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					Channel 6 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 7 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
					Channel 8 <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Analyst / SNT Level / Date:  
Hector Diaz

*Hector Diaz*

III

29-Apr-03

Page 79/240





# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339C	Pro/Rev/Chg/ICN: ISWT-PDI-AUT1/0/0/1,2	Examination No.: ID-59	
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 236°	Device Configuration: D-PNPS-101		
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 29-Apr-03	Examination Time: Start 0430 End 0457	Surface Temperature °F: Start 99 End 99
Data Acquisition Operator (s) / SNT Level: R.A. Riddles / II				

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	39650	39657	Lower Limit	46039	36050	Beam Direction:	Ccw/Cw	
Scan:	X Axis	Upper Limit	43340	42890	Upper Limit	47539	47529	Transducer Size:	1.00	
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10	
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	42	
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (0)	
Correction:	Default	EDAS Radius In.	113.60							

Module Parameters: A-07-1D Cal 33						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset	PNS-33	
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80331	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80333	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80334	Examination Remarks:
Channel 5	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80335	Limited exam due to proximity of the core spray sparger.
Channel 6	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Start	Stop	Start	Stop					
1 - 37	39650	42867	46050	47630	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date: Hector Diaz	III	29-Apr-03
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# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339C	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-60
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 236°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1C	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 29-Apr-03	Examination Time: Start 0512, End 0522
Data Acquisition Operator (s) / SNT Level: R.A. Riddles / II		Surface Temperature °F: Start 99, End 99	

Scan Controller Parameters		Increment Axis/Device	Planned	Actual	Scan Axis/Arm	Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	43213	42943	Lower Limit	46039	46030	Beam Direction:	Cw/Ccw
Scan:	X Axis	Upper Limit	46903	45020	Upper Limit	47539	47515	Transducer Size:	1.00
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10
Mode:	Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	42
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (180)
Correction:	Default	EDAS Radius In.	113.60						

Module Parameters: A-07-1C Cal 33						Calibration Records:	Examination Notes:
	Status	Angle	Direction	Scan Offset	Step Offset	PNS-33	
Channel 1	On	55	(+)	- 7.00(in)	+ 0.00(in)	80331	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 2	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80333	
Channel 4	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80334	Examination Remarks:
Channel 5	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80335	Limited exam due to proximity of the core spray sparger.
Channel 6	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Channel 6 inactive.
	Start	Stop	Start	Stop					
1 - 24	42943	45015	46039	47539	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.: 4A	
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Analysis Tape/CD No.: 1A	
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Analyst / SNT Level / Date:  
Hector Diaz

*Hector Diaz*

III

29-Apr-03

Page 81/140



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339C	Pro/Rew/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-61
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 236°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1D	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 29-Apr-03	Examination Time: Start 2046, End 2109
Data Acquisition Operator (s) / SNT Level:			Surface Temperature °F: Start 82, End 82

Scan Controller Parameters	Increment Axis/Arm	Planned	Actual	Scan Axis/Device	Planned	Actual	Positional Parameters
Controller: ID Device	Lower Limit	46776	47496	Lower Limit	46039	46063	Beam Direction: Ccw/Cw
Scan: X Axis	Upper Limit	51186	51186	Upper Limit	47539	47523	Transducer Size: 1.00
Increment: Y Axis	Increment Interval	90		DCI	4		Code % of Overlap: 10
Mode: Automatic Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans: 50
Scan Motion: Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position: A (0)
Correction: Default	EDAS Radius In.	113.60					

Module Parameters:	A-07-1D	Cal 33				Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset			
Channel 1	On	55	(-)	+ 7.00(in)	+ 0.00(in)	PNS-33	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 2	On	55	(+)	- 7.00(in)	+ 0.00(in)	80331	
Channel 3	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80332	
Channel 4	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80333	
Channel 5	On	OT	(+)	+ 4.40(in)	- 1.00(in)	80334	Examination Remarks:
Channel 6	On	OT	(+)	- 4.40(in)	+ 1.00(in)	80335	Limited exam due to the proximity of the core spray sparger.
Channel 7	Off	N/A	N/A	N/A	N/A	80336	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	Channel 6 inactive.
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
9 - 30	47476	51154	46039	47539	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Further Evaluation
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Required:
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Archive Tape/CD No.:
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4A
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Analysis Tape/CD No.:
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1A
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date:  
Hector Diaz

III

30-Apr-03

log 5/14/03



# IHI SOUTHWEST TECHNOLOGIES AUTOMATED ULTRASONIC EXAMINATION RECORD

Site/Plant: Pilgrim Station	Weld Identification: RPV-L-2-339C	Pro/Rev/Chg/ICN: ISwT-PDI-AUT1/0/0/1,2	Examination No.: ID-62
Project No.: 02-0285	Weld Description: Ring 3 Vert @ 236°	Device Configuration: D-PNPS-101	
Mod.Conf.: A-07-1C	Scan Path Drawing: SPLONGSH2&3DS	Exam Date: 29-Apr-03	Examination Time: Start 0608, End 0615
Data Acquisition Operator (s) / SNT Level: R.A. Riddles / II			Surface Temperature: Start 99, End 99

Scan Controller Parameters		Increment Axis/Device		Planned	Actual	Scan Axis/Arm		Planned	Actual	Positional Parameters	
Controller:	ID Device	Lower Limit	46776	49783	Lower Limit	46039	46039	Beam Direction:	Ccw/Cw		
Scan:	X Axis	Upper Limit	51186	51289	Upper Limit	47539	47539	Transducer Size:	1.00		
Increment:	Y Axis	Increment Interval	90		DCI	4		Code % of Overlap:	10		
Mode:	Manual Scan	Conversion Counts	100		Conversion Counts	100		Number of Scans:	50		
Scan Motion:	Bi-directional	Conversion Units In.	1.00		Conversion Units In.	1.00		Device Position:	A (180)		
Correction:	Default	EDAS Radius In.	113.60								

Module Parameters: A-07-1C Cal 33						Calibration Records:	Examination Notes:
Status	Angle	Direction	Scan Offset	Step Offset		PNS-33	
Channel 1	On	55	(+)	- 7.00(in)	+ 0.00(in)	80331	Check for limitations due to the proximity of the feedwater and core spray spargers.
Channel 2	On	55	(-)	+ 7.00(in)	+ 0.00(in)	80332	
Channel 3	On	SLIC-40	(+)	- 4.40(in)	- 1.00(in)	80333	
Channel 4	On	SLIC-40	(-)	+ 4.40(in)	+ 1.00(in)	80334	Examination Remarks:
Channel 5	On	0T	(+)	- 4.40(in)	+ 1.00(in)	80335	Limited exam due to proximity of the core spray sparger.
Channel 6	On	0T	(+)	+ 4.40(in)	- 1.00(in)	80336	
Channel 7	Off	N/A	N/A	N/A	N/A	N/A	
Channel 8	Off	N/A	N/A	N/A	N/A	N/A	

Increment & Scan Positions Actual					Recordable Indications			Analyst Remarks	
Scan No.(s)	Increment Position		Scan Position		Yes	No	N/A	Attachment:	Channel 6 inactive.
	Start	Stop	Start	Stop				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
34 - 52	49718	51287	46039	47539	Channel 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
					Channel 6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
					Channel 8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Analyst / SNT Level / Date: Hector Diaz	III	29-Apr-03
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Page 83/140

# ISWT EXAMINATION SUMMARY RECORD

Project No.: 02-0285

PILGRIM NUCLEAR POWER STATION

Summary Sheet No.: 001300

**SITE:** PILGRIM STATION  
**SYSTEM:** REACTOR PRESSURE VESSEL  
**LINE/SUBASSEMBLY:** UPPER SHELL-TO-FLANGE  
**IDENTIFICATION:** RPV-C-4-339

*PNPS ISI Program  
 Designation  
 is RPV-SF-...  
 RAB*

NDE Method	Proc/Rev/Chg/CN	NDE Examination	Calibration Sheet No.	Data Sheet No.	N O R T I H	Resolution Record	CNF Number	Remarks
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	80335,80336	exam 83	X -	N/A	N/A	Examination no's 83 - 84.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT45	80041	exam 83	X -	N/A	N/A	AUTO for thickness measurement only.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55	80042	exam 83	X -	N/A	N/A	Indication detected with AUTSLIC40 was
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40	80043,80044	exam 83	- X	020001	285001	sized with AUTSLIC35 and found to be allowable
AUT	ISWT-PDI-AUT1/0/0/1,2	AUT55T	80331,80332	exam 84	X -	N/A	N/A	In accordance with the 1989 Edition of ASME
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTSLIC40T	80333,80334	exam 84	X -	N/A	N/A	Section XI Code.
AUT	ISWT-PDI-AUT1/0/0/1,2	AUTO	80335,80336	exam 84	X -	N/A	N/A	
AUT	ISWT-PDI-AUT2/0/0/1,2,3	AUTSLIC35	809033	exam 83A-RLA	- X	020001	285001	

- NOTES:
1. Weld RPV-C-4-339 was examined from the inside surface using AIRIS-21 and EDAS-II examination equipment.
  2. The examination was limited due to proximity of the main steam nozzles, nozzle plugs, guide rods at 0 and 180-degrees, and the configuration of the vessel flange. 81% examination coverage was achieved.
  3. One (1) acceptable flaw indication was recorded and sized.
  4. Detection examination patches included #83A - 83F (6 patches) and 84A - 84AB (53 patches).
  5. Sizing examination patches included #83A-RLA (1 patch).

\*\*\*UT CALIBRATION BLOCK(s)\*\*\*  
 \*\*D-70187-2/D70389-1\*\*

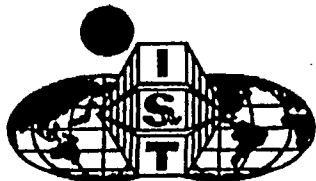
Prepared by: Steven J. Todd  
 Steven J. Todd Project Engineer

Date: 3 July 2003

Page 1 of 1

Summary Sheet No.: 001300

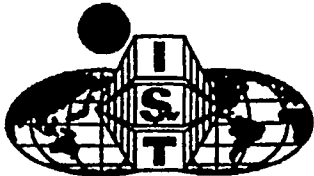
*Page 84/140*



# **PILGRAIM NUCLEAR POWER STATION** **COVERAGE REPORT** **RFO 14**

Weld No.	Exam Type	Exam No.	X		Y		Sq. Inches Scanned / Exam	Total Sq. Inches Scanned	Sq. Inches Required	Percent	Total Coverage	Remarks
			Start	Stop	Start	Stop						
RPV-L-1-339A Ring 4 Vert @ 60°	Transverse	63	112.12	124.65	499.44	524.36	312.2				97%	Limitations due to the proximity of N3A nozzle.
		64	112.12	124.65	524.36	548.78	306.0					
		65	112.12	124.73	548.87	573.20	306.8					
		66	112.12	124.73	573.20	597.62	307.9					
		67	112.12	124.73	597.62	622.04	307.9					
		68	112.12	124.73	622.04	646.46	307.9	1849	1620	100%		
	Parallel	69	110.93	125.93	508.44	578.66	1053.3					
		70-1	110.93	125.93	578.66	592.96	214.5					
		70-2	110.93	120.00	592.96	618.95	235.7					
		70-3	110.93	125.93	618.95	647.60	429.8	1933	2068	93%		
RPV-L-1-339B Ring 4 Vert @ 180°	Transverse	71A	348.99	361.59	499.44	524.36	314.0				100%	
		71B	348.99	361.59	524.36	548.78	307.7					
		71C	348.99	361.59	548.78	573.20	307.7					
		72A	348.99	361.59	573.20	597.62	307.7					
		72B	348.99	361.59	597.62	622.04	307.7					
		72C	348.99	361.59	622.04	646.46	307.7	1852	1620	100%		
	Parallel	73	347.79	362.79	508.29	578.82	1058.0					
		74	347.74	362.79	578.82	647.94	1040.3	2098	2068	100%		
RPV-L-1-339C Ring 4 Vert @ 300°	Transverse	75	585.86	598.46	499.44	524.36	314.0				98%	Limitations due to the proximity of N3D nozzle.
		76	585.86	598.46	524.36	548.78	307.7					
		77	585.86	598.46	548.78	573.20	307.7					
		78	585.86	598.46	573.20	597.62	307.7					
		79	585.86	598.46	597.62	622.04	307.7					
		80	585.86	598.46	622.04	646.46	307.7	1852	1620	100%		
	Parallel	81	584.66	599.66	508.31	578.41	1051.5					
		82-1	584.66	599.66	578.41	592.12	205.7					
		82-2	589.42	599.66	592.12	614.96	233.9					
		82-3	584.66	599.66	614.96	647.91	494.2	1985	2068	96%		

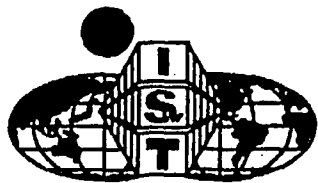
Page 85/240



# **PILGRIM NUCLEAR POWER STATION** **COVERAGE REPORT** **RFO 14**

Weld No.	Exam Type	Exam No.	X		Y		Sq. Inches Scanned / Exam	Total Sq. Inches Scanned	Sq. Inches Required	Percent	Total Coverage	Remarks
			Start	Stop	Start	Stop						
RPV-L-2-339A Ring 3 Vert @ 356°	Transverse	39	699.50	712.10	387.50	428.06	511.1				81%	Limitations due to the proximity of the feedwater and core spray spargers.
		40-1	699.50	703.39	428.06	461.15	128.7					
		40-2	703.39	712.10	461.15	468.27	62.0					
		41	699.50	712.10	476.60	504.00	345.2					
	42	699.50	712.10	504.00	517.00	163.8	1211	1481	82%			
	Parallel	43	698.30	713.30	396.50	433.30	552.0					
		44	698.30	713.30	433.30	451.08	266.7					
		45	698.30	713.30	477.38	506.20	432.3					
46		698.30	713.30	506.20	512.81	99.1	1350	1701	79%			
RPV-L-2-339B Ring 3 Vert @ 116°	Transverse	47-1	223.76	231.41	387.50	424.02	279.4				75%	Limitations due to the proximity of the feedwater and core spray spargers and ID taper at circ weld C-3-339A.
		47-2	231.41	234.81	394.34	424.02	100.9					
		47-3	234.81	236.28	396.74	424.02	40.1					
		48	223.68	236.28	424.02	448.15	304.0					
		49	223.68	235.49	475.50	483.50	94.5					
		50	223.68	236.28	503.00	520.96	226.3	1045	1481	71%		
	Parallel	51	222.48	237.48	396.66	408.07	171.2					
		52	222.48	237.48	408.07	450.17	631.5					
		53	222.48	237.48	474.68	500.16	382.2					
		54	222.48	237.48	500.16	511.86	175.5	1360	1701	80%		
RPV-L-2-339C Ring 3 Vert @ 236°	Transverse	55	461.59	473.92	387.50	408.62	260.4				83%	Limitations due to the proximity of the feedwater and core spray spargers.
		56	461.59	473.18	408.62	448.40	461.1					
		57	461.59	474.19	475.50	504.02	359.4					
		58	461.59	474.19	504.02	517.00	163.5	1244	1481	84%		
	Parallel	59	460.50	476.30	396.50	428.67	508.3					
		60	460.39	475.39	429.43	450.15	310.8					
		61	460.39	475.39	474.76	511.54	551.7					
		62	460.39	475.39	511.54	512.87	19.9	1391	1701	82%		

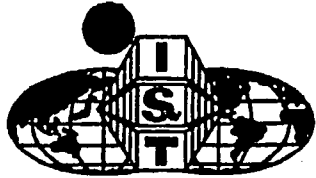
Page 86/140



# **PILGRIM NUCLEAR POWER STATION** **COVERAGE REPORT** **RFO 14**

Weld No.	Exam Type	Exam No.	X		Y		Sq. Inches Scanned / Exam	Total Sq. Inches Scanned	Sq. Inches Required	Percent	Total Coverage	Remarks
			Start	Stop	Start	Stop						
RPV-L-1-338A Ring 2 Vert @ 60°	Transverse	19					0.0				28%	Partial exam.
		20					0.0					
		21					0.0					
		22	112.66	125.26	319.93	349.81	376.5					
		23	112.66	125.26	349.81	379.16	369.8					
		24	112.66	125.26	379.16	408.51	369.8	1116	2026	55%		
	Parallel	25					0.0					
		26					0.0	0	2347	0%		
RPV-L-1-338C Ring 2 Vert @ 180°	Transverse	27	350.57	362.02	231.88	261.76	342.1				100%	
		28	350.57	362.73	261.76	291.11	356.9					
		29	350.57	363.10	291.11	320.46	367.8					
		30	350.57	363.17	320.46	349.91	371.1					
		31	350.57	363.17	349.91	379.16	368.6					
		32	350.57	363.17	379.16	408.51	369.8	2176	2026	100%		
	Parallel	33	349.37	364.37	241.33	321.48	1202.3					
		34	349.37	364.37	321.48	400.68	1188.0	2390	2347	100%		

Page 87/240

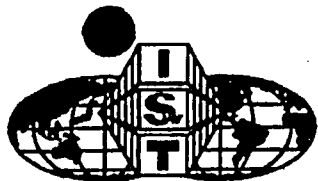


**PILGRAIM NUCLEAR POWER STATION  
COVERAGE REPORT  
RFO 14**

Weld No.	Exam Type	Exam No.	X		Y		Sq. Inches Scanned / Exam	Total Sq. Inches Scanned	Sq. Inches Required	Percent	Total Coverage	Remarks
			Start	Stop	Start	Stop						
RPV-L-2-338B Ring 1 Vert @ 198°	Transverse	9					0.0				78%	Limitations due to the proximity of the baffel plate gusset.
		10-1	384.71	395.52	136.21	150.41	153.5					
		10-2	395.52	397.28	137.00	150.41	23.6					
		11	384.51	397.12	150.41	176.16	324.7					
		12	384.51	397.12	176.16	201.91	324.7					
		13	384.51	397.12	201.91	227.66	324.7					
		14	384.51	396.94	227.66	253.41	320.1	1471	1620	91%		
	Parallel	15	383.32	398.32	136.31	175.69	590.7					
		16-1	383.32	398.32	175.69	191.55	237.9					
		16-2	383.32	390.50	191.55	204.10	90.1					
		16-3	383.32	390.90	204.10	211.75	58.0					
		16-4	383.32	389.50	211.75	218.04	38.9					
		16-5	383.32	395.60	218.04	238.86	255.7					
		16-6	383.32	398.32	238.86	244.27	81.1	1352	2068	65%		

Boqr 88/240

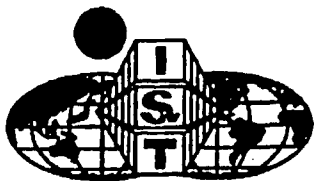




# **PILGRIM NUCLEAR POWER STATION** **COVERAGE REPORT** **RFO 14**

Weld No.	Exam Type	Exam No.	X		Y		Sq. Inches Scanned / Exam	Total Sq. Inches Scanned	Sq. Inches Required	Percent	Total Coverage	Remarks
			Start	Stop	Start	Stop						
RPV-C-4-339 Flange	Transverse	84A	1.00	14.40	640.14	652.74	168.8				81%	Limitations due to the N3 nozzles, Plugs, the flange configuration, and the guide rods:
		84B	14.40	27.80	640.14	652.74	168.8					
		84C	27.80	40.80	640.14	652.74	163.8					
		84D	40.80	54.60	640.14	652.74	173.9					
		84E	54.60	68.00	640.14	652.74	168.8					
		84F	68.00	81.40	640.14	652.74	168.8					
		84G	81.40	94.80	640.14	652.74	168.8					
		84H	94.80	108.20	640.14	652.74	168.8					
		84I	108.20	121.60	640.14	652.74	168.8					
		84J					0.0					
		84K					0.0					
		84L					0.0					
		84M	160.90	175.20	640.14	652.74	180.2					
		84N	174.20	188.60	640.14	652.74	181.4					
		84O	188.60	202.00	640.14	652.74	168.8					
		84P	202.00	215.40	640.14	652.74	168.8					
		84Q					0.0					
		84R	227.80	242.20	640.14	652.74	181.4					
		84S	242.20	255.60	640.14	652.74	168.8					
		84T	255.60	269.00	640.14	652.74	168.8					
		84U	269.00	282.40	640.14	652.74	168.8					
		84V	282.40	295.80	640.14	652.74	168.8					
		84W	295.80	309.20	640.14	652.74	168.8					
		84X	309.20	322.60	640.14	652.74	168.8					

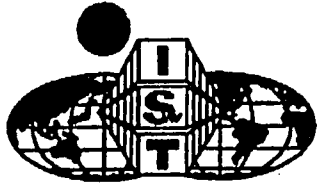
Page 89/140



# **PILGRAIM NUCLEAR POWER STATION** **COVERAGE REPORT** **RFO 14**

Weld No.	Exam Type	Exam No.	X		Y		Sq. Inches Scanned / Exam	Total Sq. Inches Scanned	Sq. Inches Required	Percent	Total Coverage	Remarks
			Start	Stop	Start	Stop						
RPV-C-4-339 Flange	Transverse	84Y	322.60	336.00	640.14	652.74	168.8					Limitations due to the N3 nozzles, Plugs, the flange configuration, and the guide rods.
		84Z	336.00	349.40	640.14	652.74	168.8					
		84AA	348.40	362.80	640.14	652.74	181.4					
		84BB	362.80	376.00	640.14	652.74	166.3					
		84CC	376.00	389.60	640.14	652.74	171.4					
		84DD	389.60	403.00	640.14	652.74	168.8					
		84EE	403.00	416.40	640.14	652.74	168.8					
		84FF	416.40	429.50	640.14	652.74	165.1					
		84GG	429.50	442.92	640.14	652.74	169.1					
		84HH	442.92	456.60	640.14	652.74	172.4					
		84II	456.60	470.00	640.14	652.74	168.8					
		84JJ	470.00	483.20	640.14	652.74	166.3					
		84KK	483.20	496.20	640.14	652.74	163.8					
		84LL					0.0					
		84MM					0.0					
		84NN					0.0					
		84OO	536.00	550.40	640.14	652.74	181.4					
		84PP	550.40	563.80	640.14	652.74	168.8					
		84QQ					0.0					
		84RR					0.0					
		84SS	589.60	603.55	640.14	652.74	175.8					
		84TT	603.55	617.00	640.14	652.74	169.5					
		84UU	617.00	630.00	640.14	652.74	163.8					
		84VV	630.00	644.20	640.14	652.74	178.9					

Boq 90/140



# **PILGRIM NUCLEAR POWER STATION** **COVERAGE REPORT** **RFO 14**

Weld No.	Exam Type	Exam No.	X		Y		Sq. Inches Scanned / Exam	Total Sq. Inches Scanned	Sq. Inches Required	Percent	Total Coverage	Remarks
			Start	Stop	Start	Stop						
RPV-C-4-339 Flange	Transverse	84WW	644.20	657.60	640.14	652.74	168.8					Limitations due to the N3 nozzles, Plugs, the flange configuration, and the guide rods.
		84XX	657.60	670.80	640.14	652.74	166.3					
		84YY	670.80	684.40	640.14	652.74	171.4					
		84ZZ	684.40	697.80	640.14	652.74	168.8					
		84AB	697.80	705.29	640.14	652.74	94.4					
	Parallel	83A	0.00	123.23	633.42	652.38	2336.4					
		83B	161.10	194.31	633.42	652.38	629.7					
		83C	232.20	355.77	633.42	652.38	2342.9					
		83D	356.49	478.80	633.42	652.38	2319.0					
		83E	516.43	549.90	633.42	652.38	634.6					
		83F-1	586.80	701.36	633.42	652.38	2172.1					
		83F-2	701.36	705.29	633.42	650.94	68.9					

X is the dimension in the circumferential direction measure in inches from vessel 0°.

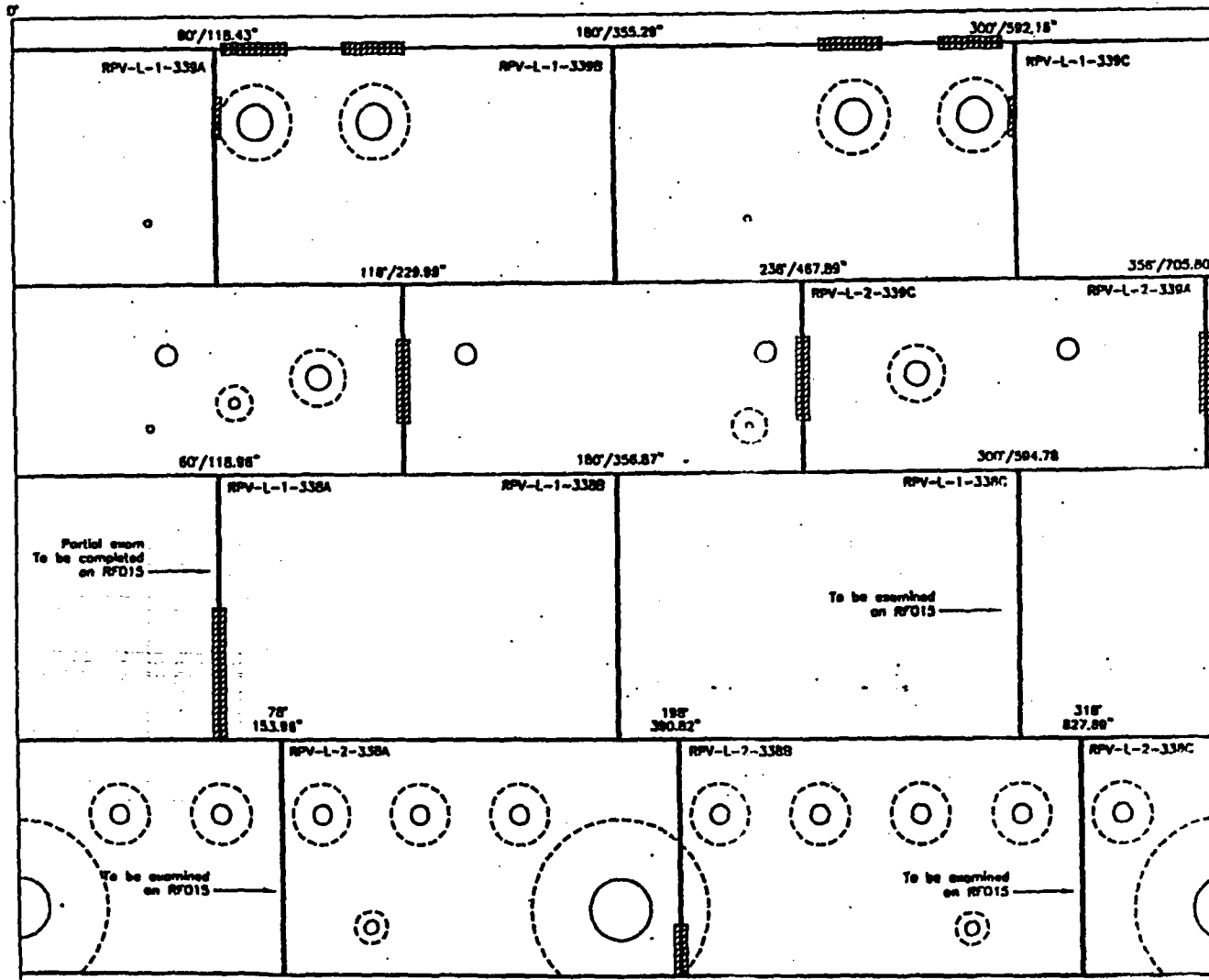
Y is the dimension in elevation measured in inches from vessel 0°.

For the Transverse examinations, X is the increment axis, and the Y is the scan axis.

For the Parallel examinations, X is in the scan axis, and Y is the increment axis.

Page 9/240

Page 12/14



Pilgrim RPV
OD Vessel Rollout (Limitations)
May 2003
Limit RPV.dwg



GE ENERGY, NUCLEAR

## EXAMINATION SUMMARY SHEET

Report No.:  
PIL-R15-05-028

Site: **Pilgrim Nuclear Power Station** Component ID: **RPV-N7A-NV**  
Outage: **RF-015** **NOZZLE TO VESSEL**  
System **RPV** ASME Cat.: **B-D** ASME Item **B3.90** Aug Req **N/A**

Exams Performed	Data Sheet	Cal Sheet	Procedure	Calibration Block	Examination Personnel	Cert Level	Date
45° Shear	UT-029	N/A	TP04-029 (GE-UT-311)	PIL-5B	J. Kent Montgomery	II	4/22/2005
60° Shear	UT-028	N/A	TP04-029 (GE-UT-311)	PIL-5B	J. Kent Montgomery	II	4/22/2005
60° Long.	UT-003	N/A	TP04-018 (GE-UT-300)	PIL-5B	Brad Dummer	III	4/22/2005
60° Long.	UT-004	N/A	TP04-018 (GE-UT-300)	CAL-IIW2-017	Brad Dummer	III	4/22/2005

## Examination Results:

Ultrasonic examination results were acceptable to the requirements of ASME B&PV Code Section XI, 1989 Edition no Addenda, and Section XI, 1995 Edition with the 1996 Addenda as modified by the PDI program description and the Federal Register, Part II, Nuclear Regulatory Commission, 10 CFR Part 50 for Category B-D Reactor Pressure Vessel (RPV) Assembly Welds.

Manual scans from the outside surface were performed in accordance with procedure TP04-018 Rev. 0 (GE-UT-300 V8) and TP04-029 Rev. 0 (GE-UT-311 V10).

No indications were recorded.

Scanning was restricted due to nozzle configuration.

Manual coverage = 56.7%

Examination results were compared to data report 95-E-437,439,441 from 1995 outage with ☒ No Change

These examinations were performed under Work Order: N/A ☐ Change

This Summary and the following data sheets have been reviewed and accepted by the following personnel:

Prepared By: R/M/D Level: III Date: 4-24-05 Utility Review: Scott R. [Signature] Date: 4/27/05  
ANII Review: [Signature] Date: 4/27/05

RWP: 0065  
Dose: 1 mr.

Page 1 of 8

Page 93/140



**GE ENERGY, NUCLEAR**

# **Ultrasonic Calibration and Examination Record RPV Components**

Site/Unit: Pilgrim Nuclear Power Station / 1

Data Report Number: PIL-R15-05-026 Linearity Sheet: L-006

Outage: RF-015

Data Sheet Number: UT-003

Procedure: TP04-018 (GE-UT-300)

Rev.: R0 (V8)

DRR: N/A

Calibration Block: PIL-5B

CS      Flt:      4.35"  
Material      Size      Thickness  
Initial Cal: 0945      Exam Start: 1400  
Cal Check: N/A      Exam End: 1440  
Cal Check: N/A      Ultracel II      01225  
Final Cal: 1445      Couplant:      Batch  
241890      68° F      68° F  
Thermometer      Initial Cal Temp.      Final Cal Temp.

## **DAC Construction**

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
ID	<u>4.1"</u>	1X	<u>80%</u>	<u>7.8"</u>	<u>8.2"</u>	<u>4.1</u>
N/A	N/A	1X	N/A	N/A	N/A	N/A

DAC 1X= 62 dB

Sweep 0-10 10.0" Depth

Note N/A dB difference between 3/8 and 5/8 Vee

Exam Data for Weld: RPV-N7A-NV

NOZZLE TO VESSEL

Configuration:

00      72° F  
Exam Surface:      Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>TP</u>	<u>00</u>	<u>68</u>	<u>NRI</u>	<u>60°</u>

## **Search Unit Data**

Sigma      22BC-02005      2(1.1"x.62")/Rect.  
Manufacturer:      Serial Number:      Size / Shape:  
0.65"      60°      59°  
Incident Point:      Nominal Angle:      Measured Angle:  
3.0 MHz      SDC-3      Long  
Frequency:      Model:      Mode:

## **Search Unit Cable**

RG-174      12'      0  
Cable Type:      Length:      Connectors:

## **Instrument Settings**

Penametrics / Epoch 4      031540506  
Manufacturer/Model:      Serial Number:  
9.615 us      0.234 in./usec.      0.8 - 3.0 MHz  
Delay/Zero:      Velocity:      Narrowband Filter:  
Auto      Fullwave      20.0 in.      Sa / Med  
Rep Rate:      Rectification:      Range:      Pulsar:  
400 Ohms      0      3.03 MHz      Dual  
Damping:      Reject:      Frequency:      Mode:  
Off      Off      Off      Off  
DAC:      TVG:      CSC:      DGS:

## **Calibration Verification**

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Exams performed to maintain a 10% - 20% FSH clad roll.

\* Initial cal date: 4/22/05

\* Final date: 4/23/05

Numerous spot indications seen but not recordable per procedure.

RA Bred Dummer      II      4/22/2005

Initials: Examiner      Level      Cal/Exam Date:

N/A      N/A

Initials: Examiner      Level

N/A      II      4-24-05  
GE Reviewed By:      Level:      Date:

Scott L. III      4/27/05

Utility Reviewed By:      Date:

Chris Hamm      4/27/05

ANII Reviewed By:      Date:



GE ENERGY, NUCLEAR

Ultrasonic Calibration and Examination Record  
RPV ComponentsSite/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-026 Linearity Sheet: L-006Outage: RF-015Data Sheet Number: UT-004Procedure: TP04-018 (GE-UT-300)Rev.: R0 (Y8)DRR: N/ACalibration Block: CAL-IIW2-017

CS N/A 4.0"  
Material Size Thickness  
Initial Cal: 0945 Exam Star: 1400  
Cal Check: N/A Exam End: 1440  
Cal Check: N/A Ultracel II 01225  
Final Cal: 1445 Couplant: Batch  
241890 68°F 68°F  
Thermometer Initial Cal Temp. Final Cal Temp.

## DAC Construction

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
1/4	<u>0.6"</u>	1X	<u>80%</u>	<u>1.0"</u>	<u>.58"</u>	<u>2.8</u>
N/A	<u>N/A</u>	1X	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
N/A	<u>N/A</u>	1X	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
N/A	<u>N/A</u>	1X	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
N/A	<u>N/A</u>	1X	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

DAC 1X= 58 dBSweep 0-10 2.0" DepthNote N/A dB difference between 3/8 and 5/8 VeeExam Data for Weld: RPV-N7A-NVNOZZLE TO VESSEL

Configuration:

QD 72°F  
Exam Surface: Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>1/2</u>	<u>QD</u>	<u>72</u>	<u>NRI</u>	<u>60°</u>

## Search Unit Data

Sigma 22BC-02001 2(1.1"x.62")/Rect.  
Manufacturer: Serial Number: Size / Shape:  
0.65" 60° 59°  
Incident Point: Nominal Angle: Measured Angle:  
3.0 MHz SDC-3 Long  
Frequency: Model: Mode:

## Search Unit Cable

RG-174 12' 0  
Cable Type: Length: Connectors:

## Instrument Settings

Panametrics / Epoch 4 031540506  
Manufacturer/Model: Serial Number:  
9.615 us 0.234 in./usec. 0.5 - 3.0 MHz  
Delay/Zero: Velocity: Narrowband Filter:  
Auto Fullwave 4.0 in. Sa / Med  
Rep Rate: Rectification: Range: Pulsar:  
100 Ohms 0 3.03 MHz Dual  
Damping: Reject: Frequency: Mode:  
Off Off Off Off  
DAC: TVG: CSC: DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Calibration for near surface examination.

\* Initial cal date: 4/22/05\* Final date: 4/23/05

Numerous spot indications seen but not recordable per procedure.

BD Brad Dummer III 4/22/2005  
Initials: Examiner Level Cal/Exam Date:

N/A N/A  
Initials: Examiner Level  
[Signature] III 4-24-05  
GE Reviewed By: Level: Date:

[Signature] 4/27/05  
Utility Reviewed By: Date:  
[Signature] 4/28/05  
ANII Reviewed By: Date:

Page 3 of 8

Page 95/240



GE ENERGY, NUCLEAR

# Ultrasonic Calibration and Examination Record Inner Radius Examinations

Site/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-026 Linearity Sheet: L-004Outage: RF-015Data Sheet Number: UT-028Procedure: TP04-029 (GE-UT-311)Rev: R0 (V10)DRR: N/ACalibration Data for Block: PIL-5B

CS      Flat      4.35"  
 Material      Size      Thickness  
 Initial Cal: 1030°      Exam Start: 14:00  
 Cal Check: N/A      Exam End: 14:45  
 Cal Check: N/A      Ultracel II      01225  
 Final Cal: 1405°      Couplant:      Batch  
241820      68°F      68°F  
 Thermometer      Initial Cal Temp.      Final Cal Temp.

## DAC Construction

Side	Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
ID	<u>4.1"</u>	1X	<u>80%</u>	<u>7.8"</u>	<u>9.18"</u>	<u>4.6</u>
<u>N/A</u>	<u>N/A</u>	1X	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

DAC @ 1X 41 dBSweep 0-10 20 Metal PathAcceptable Linearity performed: 4/15/2005

## Search Unit Data

KEA      010HXM      0.5"x1.0"/Recl  
 Manufacturer:      Serial No.:      Size/Shape:  
0.75 in.      60°      61°  
 Incident Point:      Nominal Angle:      Measured Angle:  
2.25 MHz      113-892-600      Shear  
 Frequency:      Model:      Mode:

## Search Unit Cable

RG-174      12'      0  
 Cable Type:      Length:      Connectors:

## Instrument Settings

Panametrics / Epoch 4      031574111  
 Manufacturer/Model:      Serial No.:

14.27 us      0.128 in/us      0.8 - 3.0 MHz  
 Zero:      Velocity:      Narrowband Filter:  
Auto      Fullwave      20.0 in.      Sa / Med  
 Rep Rate:      Rectification:      Range:      Pulsar/Energy  
400 Ohms      0      2.0 MHz      P/E  
 Damping:      Reject:      Frequency:      Mode:  
Off:      Off:      Off:      Off:  
 DAC:      TVG:      CSC:      DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Exam Data for Component: RPV-N7A-NVNOZZLE TO VESSEL

Configuration:

02      70°F  
 Exam Surface:      Component Temp.  
 Examination Area      Exam Angle      Rotation Angle      Wedge S/N      Scan dB      Recordable Indications  
0-5°      60°      15° - 85°      N/A      55      NRI

Comments: Cal/Exam Date is the date of initial calibration. See coverage sheet for limitations.

Exams performed to maintain a 5% FSH ID roll.

Scanned CW and CCW.

Calibration sweep is 20 metal path, examination range setting is 10.

Calibration for nozzle to vessel weld.

\* Initial Cal: 4/22/2005

\* Final Cal: 4/23/2005

JKM J. Kent Montgomery

#

4/22/2005

Initials: Examiner:

Level

Cal/Exam Date:

Utility Reviewed By:

Date:

B/M

III

4-24-05Curt4/24/05

GE Reviewed By:

Level:

Date:

ANII Reviewed By:

Date:

Page 4 of 8

Page 96/140





GE ENERGY, NUCLEAR

# Ultrasonic Calibration and Examination Record Inner Radius Examinations

Site/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-026 Linearity Sheet: L-004Outage: RF-015Data Sheet Number: UT-029Procedure: TP04-029 (GE-UT-311)Rev: R0 (V10) DRR: N/A

## Calibration Data for Block: PIL-5B

**CS**      **Flat**      **4.35"**  
 Material:      " Size      Thickness  
 Initial Cal: 1020°      Exam Start      14:00  
 Cal Check: N/A      Exam End      14:45  
 Cal Check: N/A      Ultracel II      01225  
 Final Cal: 1400°      Couplant:      Batch  
241890      68° F      68° F  
 Thermometer      Initial Cal Temp.      Final Cal Temp.

## DAC Construction

Side	Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
ID	<u>4.1"</u>	<u>1X</u>	<u>80%</u>	<u>4.1"</u>	<u>6.19"</u>	<u>3.1</u>
<u>N/A</u>	<u>N/A</u>	<u>1X</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

DAC @ 1X 35.5 dBSweep 0-10 20" Metal PathAcceptable Linearity performed: 4/15/2005

## Exam Data for Component: RPV-N7A-NV

### NOZZLE TO VESSEL

Configuration:

**00**      **70° F**  
 Exam Surface:      Component Temp.  
 Examination Area      Exam Angle      Rotation Angle      Wedge S/N      Scan dB      Recordable Indications  
0-8"      45°      15° - 85°      N/A      49.5      NRI

## Search Unit Data

**KEA**      **010HXC**      **0.5"x1.0"/Rect**  
 Manufacturer:      Serial No.:      Size/Shape:  
0.7 in.      45°      44°  
 Incident Point:      Nominal Angle:      Measured Angle:  
2.25 MHz      113-892-600      Shear  
 Frequency:      Model:      Mode:

## Search Unit Cable

**RG-174**      **12'**      **0**  
 Cable Type:      Length:      Connectors:

## Instrument Settings

**Panametrics / Epoch 4**      **031574111**  
 Manufacturer/Model:      Serial No.:

12.35 us      0.128 in / ussec      0.8 - 3.0 MHz  
 Zero:      Velocity:      Narrowband Filter:  
**Auto**      **Fullwave**      **20.0 in.**      **Sq. / Mod**  
 Rep Rate:      Rectification:      Range:      Pulsar/Energy  
400 Ohms      0      2.0 MHz      P/E  
 Damping:      Reject:      Frequency:      Mode:  
Off:      Off:      Off:      Off:  
 DAC:      TVG:      CSC:      DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Comments: Cal/Exam Date is the date of initial calibration. See coverage sheet for limitations.

Exams performed to maintain a 5% FSH ID roll.

Scanned CW and CCW.

Calibration sweep is 20 metal path, examination range setting is 10.

Calibration for nozzle to vessel weld.

\* Initial Cal: 4/22/2005

\* Final Cal: 4/23/2005

J. Kent Montgomery

II

4/22/2005

Initials: Examiner:

Level

Cal/Exam Date:

Utility Reviewed By:

Date:

RLM

II

4-24-05

GE Reviewed By:

Level:

Date:

ANII Reviewed By:

Date:

Page 5 of 8

Page 97/240

MANUAL DETECTION NOZZLE INNER RADIUS AND BORE INSPECTION REQUIREMENTS							
PLANT		Pilgrim					
PREPARED BY		S.C. MORTENSON			DATE		
					01/10/05		
NOZZLE EXAM ZONE	SCAN SURFACE	SCAN AREA	BEAM ANGLE	ROTATION ANGLE	WEDGE RADIUS	MAX MP	FREQ
RECIRC OUTLET							
N/V Weld (M)	PLATE	0 - 3.0"	45.0°	± 70° - 85°	FLAT	10.0"	1 MHz
N/V Weld/Zone 1 (M)	ODBR	50° - 90°	43.0°	83.0°	6.6"	15.9"	1 MHz
Zone 1 (M)	ODBR	35° - 90°	32.9°	82.2°	6.6"	12.9"	1 MHz
Zone 2a (M)	ODBR	35° - 90°	41.2°	48.9°	6.6"	13.4"	1 MHz
RECIRC INLET							
N/V Weld (M)	PLATE	0 - 6.0"	60.0°	± 35° - 65°	FLAT	15.6"	1 MHz
Zone 1 (M)	PLATE	0 - 6.0"	70.0°	± 30°	FLAT	28.0"	1 MHz
Zone 2a (M)	ODBR	55° - 90°	64.8°	20.3°	6.1"	12.2"	1 MHz
TOP HEAD VENT							
N/V (M)	PLATE	0 - 5.0"	60.0°	32° - 56°	FLAT	6.8"	2.25 MHz
ZONE 1-2A (M)	PLATE	0 - 7.0"	70.0°	± 25°	FLAT	9.7"	2.25 MHz
ZONE 2A (M)	PLATE	0 - 8.0"	80.0°	± 25°	FLAT	12.9"	2.25 MHz
TOP HEAD SPARE							
N/V (M)	PLATE	0 - 8.0"	45.0°	15° - 85°	FLAT	4.6"	2.25 MHz
N/V (M)	PLATE	0 - 5.0"	60.0°	15° - 85°	FLAT	6.8"	2.25 MHz
ZONE 1 (M)	PLATE	0 - 4.0"	80.0°	± 50°	FLAT	6.8"	2.25 MHz
ZONE 1-2A (M)	PLATE	0 - 7.0"	70.0°	± 30°	FLAT	9.7"	2.25 MHz
ZONE 2A (M)	PLATE	0 - 9.0"	80.0°	± 25°	FLAT	17.9"	2.25 MHz

NOTES:	•	DESIGN / (FIXTURE) ROTATION FOR 3.0" PKG OFFSET
	#	DESIGN / (FIXTURE) ROTATION FOR 1.45" PKG OFFSET
	**	WEDGE / (FIXTURE) ROTATION ANGLE FOR 2.5" OFFSET
	***	DESIGN / (FIXTURE) ROTATION FOR 1.5" PKG OFFSET
	(M)	MANUAL

Questions on this NIR requirements sheet shall be directed to S.C. Mortenson @ 704 948-0253

*Signature* 4/27/05 1/9/2005

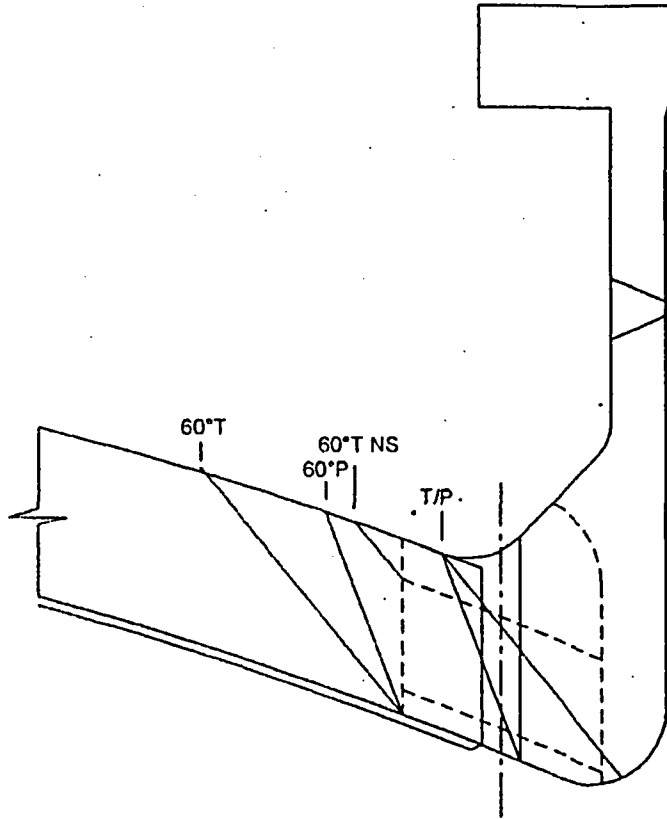
Pilgrim - RFO15  
Weld RPV-N7A-NV Top Head Spray  
Spring 2005

Weld Length = 360. Exam Volume = 28.		CODE CROSS-SECTIONAL AREA		TOTAL CODE COVERAGE		
		Required Exam Area Sq. In.	Area Scanned Manual	Percent of Area Manual	Weld Length Manual	Percent Manual
60° NS T-Scan	A	10.2	1.7	5.1%	180	1.5%
60° S6 T-Scan	A	14.7	11.3	40.4%	180	16.1%
60° S4 / IRS Scan	A	3.1	3.1	11.1%	180	2.8%
60° NS P-Scan	A	10.2	1.3	4.6%	180	1.2%
60° S6 P-Scan	A	25.6	5.9	21.1%	180	5.3%
60° IRS P-Scan	A	3.1	3.1	11.1%	180	2.8%
60° NS T-Scan	B	9.1	2.8	10.0%	180	2.5%
60° S6 T-Scan	B	14.9	14.5	51.8%	180	12.9%
60° S4 / IRS Scan	B	2.9	2.9	10.4%	180	2.6%
60° NS P-Scan	B	10.2	2.2	7.9%	180	2.0%
60° S6 P-Scan	B	25.6	11.8	42.1%	180	10.5%
60° IRS P-Scan	B	3.1	2.9	10.4%	180	2.6%

% Total Composite Coverage = 56.7%

Comments: A - Examined from the top side of the nozzle 180°. Scanning limited due to nozzle configuration.  
B - Examined from the bottom side of the nozzle 180°. Scanning limited due to nozzle configuration.

Note - Rounding methods may affect calculated values.



### Nozzle Top Side

60° NS Exam Volume = 10.2 Sq. In.  
 60° FV Exam Volume = 14.7 Sq. In.  
 Inner 15%T Exam Volume = 3.1 Sq. In.

60° NS T-Scan achieved = 1.7 Sq. In.  
 60° FV T-Scan achieved = 11.3 Sq. In.  
 60° Inner 15% T-Scan achieved = 3.1 Sq. In.

#### Scan Plan Coverage T and P scans

60° NS P-Scan achieved = 1.3 Sq. In.  
 60° FV P-Scan achieved = 5.9 Sq. In.  
 60° Inner 15% P-Scan achieved = 3.1 Sq. In.

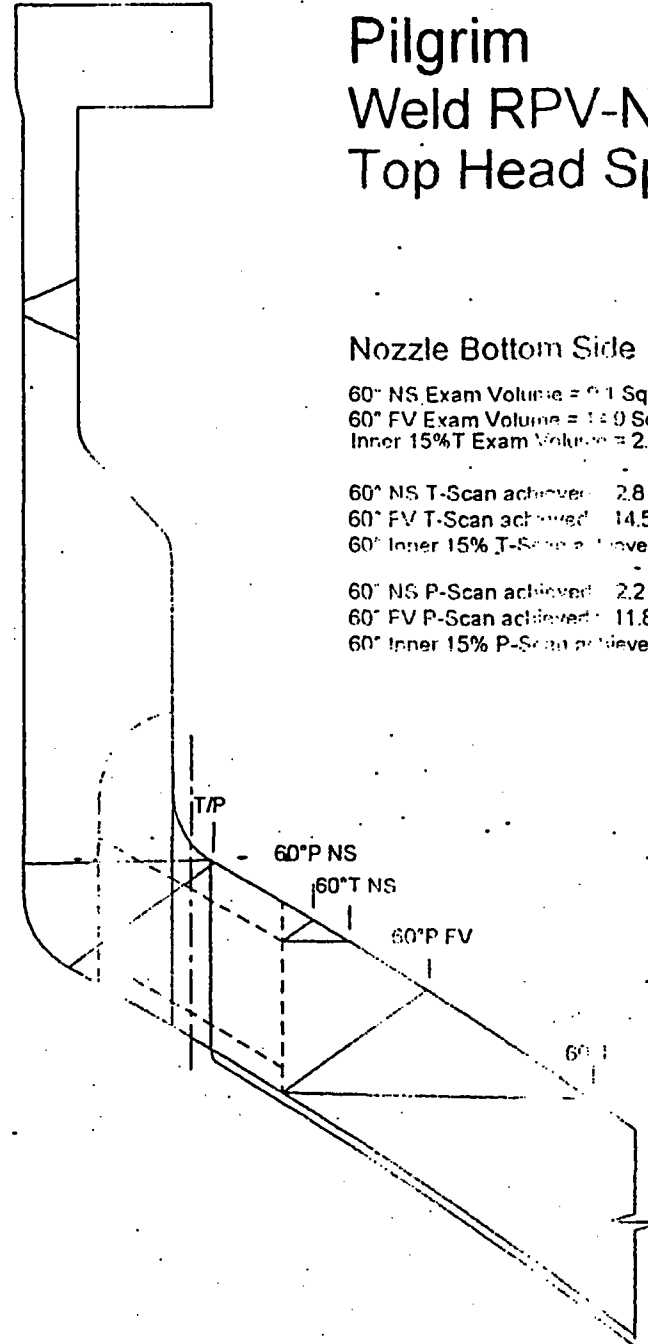
## Pilgrim Weld RPV-N7A-NV Top Head Spray

### Nozzle Bottom Side

60° NS Exam Volume = 9.1 Sq. In.  
 60° FV Exam Volume = 14.0 Sq. In.  
 Inner 15%T Exam Volume = 2.9 Sq. In.

60° NS T-Scan achieved = 2.8 Sq. In.  
 60° FV T-Scan achieved = 14.5 Sq. In.  
 60° Inner 15% T-Scan achieved = 2.9 Sq. In.

60° NS P-Scan achieved = 2.2 Sq. In.  
 60° FV P-Scan achieved = 11.8 Sq. In.  
 60° Inner 15% P-Scan achieved = 2.9 Sq. In.





GE ENERGY, NUCLEAR

## EXAMINATION SUMMARY SHEET

Report No.:  
PIL-R15-05-028

Site: **Pilgrim Nuclear Power Station** Component ID: **RPV-N7B-NV**  
Outage: **RF-015** **NOZZLE TO VESSEL**  
System **RPV** ASME Cat.: **B-D** ASME Item **B3.90** Aug Req **N/A**

Exams Performed	Data Sheet	Cal Sheet	Procedure	Calibration Block	Examination Personnel	Cert Level	Date
45° Shear	UT-033	N/A	TP04-029 (GE-UT-311)	PIL-5E	J. Kent Montgomery	I	4/22/2005
60° Shear	UT-034	N/A	TP04-029 (GE-UT-311)	PIL-5B	J. Kent Montgomery	II	4/22/2005
60° Long.	UT-005	N/A	TP04-018 (GE-UT-300)	PIL-5B	Brad Dummer	III	4/21/2005
60° Long.	UT-006	N/A	TP04-018 (GE-UT-300)	CAL-IIW2-017	Brad Dummer	III	4/22/2005

## Examination Results:

Ultrasonic examination results were acceptable to the requirements of ASME B&PV Code Section XI, 1989 Edition no Addenda, and Section XI, 1995 Edition with the 1996 Addenda as modified by the PDI program description and the Federal Register, Part II, Nuclear Regulatory Commission, 10 CFR Part 50 for Category B-D Reactor Pressure Vessel (RPV) Assembly Welds.

Manual scans from the outside surface were performed in accordance with procedures TP04-018 Rev. 0 (GE-UT-300 V8) and TP04-029 Rev. 0 (GE-UT-311 V10).

No indications were recorded.

Scanning was restricted due to nozzle configuration.

Manual coverage = 56.7%.

Examination results were compared to data report 95-E-375,377,379 from 1995 outage with ☒ No Change

These examinations were performed under Work Order: N/A ☐ Change

This Summary and the following data sheets have been reviewed and accepted by the following personnel:

Prepared By: [Signature] Level: III Date: 4-24-05 Utility Review: [Signature] Date: 4/28/05  
ANII Review: [Signature] Date: 4/28/05

RWP: 0065

Dose: 1 mr.

Page 1 of 8

Page 100/240



GE ENERGY, NUCLEAR

Ultrasonic Calibration and Examination Record  
RPV ComponentsSite/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-028 Linearity Sheet: L-006Outage: RF-015Data Sheet Number: UT-006Procedure: TP04-018 (GE-UT-300)Rev.: R0 (VB)DRR: N/ACalibration Block: CAL-IIW2-017

CS      N/A      4.0"  
Material      Size      Thickness  
Initial Cal: 0945      Exam Start: 1445  
Cal Check: N/A      Exam End: 1535  
Cal Check: N/A      Ultracal II      01225  
Final Cal: 1445      Couplant:      Batch  
241690      68° F      68° F  
Thermometer      Initial Cal Temp.      Final Cal Temp.

## DAC Construction

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
1/4	0.6"	1X	80%	1.0"	58"	2.8
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A

DAC 1X= 58 dBSweep 0-10 2.0" DepthNote N/A dB difference between 3/8 and 5/8 VeeExam Data for Weld: RPV-N7B-NVNOZZLE TO VESSEL

Configuration:

00      72° F  
Exam Surface:      Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>Plate</u>	<u>I</u>	<u>72</u>	<u>NRI</u>	<u>60°</u>
<u>Plate CW/CCW</u>	<u>P</u>	<u>72</u>	<u>NRI</u>	<u>60°</u>

## Search Unit Data

Sigma: 22BC-02005      2(1.1"x.62")/Rect.  
Manufacturer:      Serial Number:      Size / Shape:  
0.65"      60°      59°  
Incident Point: Nominal Angle: Measured Angle:  
3.0 MHz      SDC-3      Long  
Frequency:      Model:      Mode:

## Search Unit Cable

RG-174      12'      0  
Cable Type:      Length:      Connectors:

## Instrument Settings

Panametrics / Epoch 4      031540506  
Manufacturer/Model:      Serial Number:  
9.615 us      0.234 in./usec.      0.8 - 3.0 MHz  
Delay/Zero:      Velocity:      Narrowband Filter:  
Auto      Fullwave      4.0 in.      Sa / Med  
Rep Rate: Rectification:      Range:      Pulsar:  
400 Ohms      0      3.03 MHz      Dual  
Damping:      Reject:      Frequency:      Mode:  
Off      Off      Off      Off  
DAC:      TVG:      CSC:      DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Calibration for near surface examination. Exams performed a minimum of 14 dB above reference.

\* Initial cal date: 4/22/05\* Final cal date: 4/23/05

Numerous spot indications seen but not recordable per procedure.

BSJ      Bred Dummer      III      4/22/2005  
Initials: Examiner      Level      Cal/Exam Date:

N/A      N/A  
Initials: Examiner      Level  
4-25-05  
GE Reviewed By:      Level:      Date:

Scott L. III      4/28/05  
Utility Reviewed By:      Date:  
Chris Hansen      4/28/05  
ANII Reviewed By:      Date:



GE ENERGY, NUCLEAR

Ultrasonic Calibration and Examination Record  
RPV ComponentsSite/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-028 Linearity Sheet: L-006Outage: RF-015Data Sheet Number: UT-005Procedure: TP04-018 (GE-UT-300)Rev.: R0 (V8)DRR: N/ACalibration Block: PIL-5B

CS Flat 4.3f.  
Material Size Thickness  
Initial Cal: 0945\* Exam Start: 1445  
Cal Check: N/A Exam End: 1535  
Cal Check: N/A Ultrason II 01225  
Final Cal: 1445\* Couplant: Batch  
241890 68°F 68°F  
Thermometer Initial Cal Temp. Final Cal Temp:

## DAC Construction

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
ID	<u>4.1"</u>	1X	<u>80%</u>	<u>7.8"</u>	<u>8.2"</u>	<u>4.1</u>
N/A	N/A	1X	N/A	N/A	N/A	N/A

DAC 1X= 62 dBSweep 0-10 10.0" DepthNote N/A dB difference between 3/8 and 5/8 VeeExam Data for Weld: RPV-N7B-NVNOZZLE TO VESSEL

Configuration:

QD72°F

Exam Surface:

Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>Plate</u>	<u>I</u>	<u>68°</u>	<u>NRI</u>	<u>60°</u>
<u>Plate CW/CCW</u>	<u>P</u>	<u>68°</u>	<u>NRI</u>	<u>60°</u>

## Search Unit Data

Sigma 22BC-0200t 2(1.1"x.62")/Rect.  
Manufacture: Serial Number: Size / Shape:  
0.65" 60° 59°  
Incident Point: Nominal Angle: Measured Angle:  
3.0 MHz SDC-3 Long.  
Frequency: Model: Mode:

## Search Unit Cable

RG-174 12' 0  
Cable Type: Length: Connectors:

## Instrument Settings

Panametrics / Epoch 4 031540506  
Manufacturer/Model: Serial Number:  
9.615 us 0.234 in./usec. 0.8 - 3.0 MHz  
Delay/Zero: Velocity: Narrowband Filter:  
Auto Fullwave 20.0 in. Sq. / Med  
Rep Rate: Rectification: Range: Pulser:  
400 Ohms 0 3.03 MHz Dual  
Damping: Reject: Frequency: Mode:  
Off Off Off Off  
DAC: TVG: CSC: DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Calibration for full volume examination. Exams performed to maintain a 10% - 20% FSH clad roll.

\* Initial cal date: 4/22/05\* Final cal date: 4/23/05

Numerous spot indications seen but not recordable per procedure.

BABred DummerIII4/22/2005

Initials: Examiner

Level Cal/Exam Date:

N/AN/A

Initials: Examiner

Level

11/14/05III4-24-05

GE Reviewed By:

Level:

Date:

Scott L. Lee4/28/05

Utility Reviewed By:

Date:

Chris Hansen4/28/05

ANII Reviewed By:

Date:

Page 3 of 8

Page 102/140



GE ENERGY, NUCLEAR

# Ultrasonic Calibration and Examination Record Inner Radius Examinations

Site/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-028 Linearity Sheet: L-004Outage: RF-015Data Sheet Number: UT-034Procedure: TP04-029 (GE-UT-311)Rev: R0 (V10) DRR: N/A

## Calibration Data for Block: PIL-5B

**CS** **Flat** **4.35"**  
 Material Size Thickness  
 Initial Cal: 1030° Exam Start: 15:35  
 Cal Check: N/A Exam End: 16:25  
 Cal Check: N/A **Ultracel II** **01225**  
 Final Cal: 1405° Couplant: Batch  
**241890** **68° F** **68° F**  
 Thermometer Initial Cal Temp. Final Cal Temp.

## DAC Construction

Side	Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
ID	<u>4.1"</u>	1X	<u>80%</u>	<u>7.8"</u>	<u>9.18"</u>	<u>4.6</u>
<u>N/A</u>	<u>N/A</u>	1X	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

DAC @ 1X 41 dBSweep 0-10 20° Metal PathAcceptable Linearity performed: 4/15/2005

## Exam Data for Component: RPV-N7B-NV

### NOZZLE TO VESSEL

Configuration:

**00** **70° F**  
 Exam Surface: Component Temp.  
 Examination Area Exam Angle Rotation Angle Wedge S/N Scan Recordable  
 dB Indications  
0-5" 60° 15°-85° N/A 55 NRI

## Search Unit Data

**KBA** **010HXM** **0.5"x1.0"/Rect.**  
 Manufacturer: Serial No.: Size/Shape:  
0.75 in. 60° 61°  
 Incident Point: Nominal Angle: Measured Angle:  
2.25 MHz 113-892-600 Shear  
 Frequency: Model: Mode:

## Search Unit Cable

**RG-174** **12'** **0**  
 Cable Type: Length: Connectors:

## Instrument Settings

**Panametrics / Epoch 4** **031574111**  
 Manufacturer/Model: Serial No.:

14.27 us 0.128 in / us 0.8 - 3.0 MHz  
 Zero: Velocity: Narrowband Filter:  
**Auto** **Fullwave** **20.0 in.** **Sq. / Med**  
 Rep Rate: Rectification: Range: Pulsar/Energy  
400 Ohms 0 2.0 MHz P/E  
 Damping: Reject: Frequency: Mode:  
Off: Off: Off: Off:  
 DAC: TVG: CSC: DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Comments: Cal/Exam Date is the date of initial calibration. See coverage sheet for limitations.

Exams performed to maintain a 5% FSH ID roll.

Scanned CW and CCW.

Calibration sweep is 20 metal path, examination range setting is 10.

Calibration for nozzle to vessel weld.

\* Initial Cal: 4/22/2005

\* Final Cal: 4/23/2005

JKM J. Kent Montgomery

II

4/22/2005

Initials: Examiner:

Level

Cal/Exam Date:

S. J. L. L. L.

Utility Reviewed By:

4/22/05

Date:

R. M. B.

III

4-24-05

GE Reviewed By:

Level:

Date:

C. H. H.

ANII Reviewed By:

4/24/05

Date:

Page 4 of 8

Page 103/240





GE ENERGY, NUCLEAR

# Ultrasonic Calibration and Examination Record Inner Radius Examinations

Site/Unit: Pilgrim Nuclear Power Station / 1

Data Report Number: PIL-R15-05-028 Linearity Sheet: L-004

Outage: RF-015

Data Sheet Number: UT-033

Procedure: TP04-029 (GE-UT-311)

Rev: R0 (V10) DRR: N/A

## Calibration Data for Block: PIL-5B

CS Flat 4.35"  
Material Size Thickness  
Initial Cal: 1020° Exam Start 15:35  
Cal Check: N/A Exam End 16:25  
Cal Check: N/A Ultracel II 01225  
Final Cal: 1400° Couplant: Batch  
241890 68°F 68°F  
Thermometer Initial Cal Temp. Final Cal Temp:

## DAC Construction

Side	Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
ID	<u>4.1"</u>	1X	<u>80%</u>	<u>4.1"</u>	<u>6.19"</u>	<u>3.1</u>
<u>N/A</u>	<u>N/A</u>	1X	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

DAC @ 1X 35.5 dB

Sweep 0-10 20° Metal Path

Acceptable Linearity performed: 4/15/2005

## Exam Data for Component: RPV-N7B-NV

### NOZZLE TO VESSEL

Configuration:

QD 70°F  
Exam Surface: Component Temp.  
Examination Area Exam Angle Rotation Angle Wedge S/N Scan Recordable dB Indications  
0-8" 45° 15°-85° N/A 49.5 NRI

## Search Unit Data

KEA 010HXC 0.5"x1.0"/Rec:  
Manufacturer: Serial No.: Size/Shape:  
0.7 in. 45° 44°  
Incident Point: Nominal Angle: Measured Angle:  
2.25 MHz 113-892-600 Shear  
Frequency: Model: Mode:

## Search Unit Cable

RG-174 12' 0  
Cable Type: Length: Connectors:

## Instrument Settings

Panametrics / Epoch 4 031574111  
Manufacturer/Model: Serial No.:

12.35 us 0.126 in /usec 0.8 - 3.0 MHz  
Zero: Velocity: Narrowband Filter:  
Auto Fullwave 20.0 in. Sa / Med  
Rep Rate: Rectification: Range: Pulsar/Energy  
400 Ohms 0 2.0 MHz P/E  
Damping: Reject: Frequency: Mode:  
Off: Off: Off: Off:  
DAC: TVG: CSC: DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Comments: Cal/Exam Date is the date of initial calibration. See coverage sheet for limitations.

Exams performed to maintain a 5% FSH ID roll.

Scanned CW and CCW.

Calibration sweep is 20 metal path, examination range setting is 10.

Calibration for nozzle to vessel weld.

\* Initial Cal: 4/22/2005

\* Final Cal: 4/23/2005

JKM J. Kent Montgomery

II

4/22/2005

Initials: Examiner:

Level

Cal/Exam Date:

Utility Reviewed By:

Date:

R/M

III

4-24-05

Chris

4/24/05

GE Reviewed By:

Level:

Date:

ANII Reviewed By:

Date:

Page 5 of 8

Page 104/240

MANUAL DETECTION NOZZLE INNER RADIUS AND BORE INSPECTION REQUIREMENTS							
PLANT		Pilgrim					
PREPARED BY		S.C. MORTENSON			DATE		
					01/10/05		
NOZZLE EXAM ZONE	SCAN SURFACE	SCAN AREA	BEAM ANGLE	ROTATION ANGLE	WEDGE RADIUS	MAX MP	FREQ
RECIRC OUTLET							
N/V Weld (M)	PLATE	0 - 3.0"	45.0°	± 70° - 85°	FLAT	10.2"	1 MHz
N/V Weld/Zone 1 (M)	ODBR	50° - 90°	43.0°	83.0°	6.6"	15.9"	1 MHz
Zone 1 (M)	ODBR	35° - 90°	32.9°	82.2°	6.6"	12.9"	1 MHz
Zone 2a (M)	ODBR	35° - 90°	41.2°	48.9°	6.6"	13.4"	1 MHz
RECIRC INLET							
N/V Weld (M)	PLATE	0 - 6.0"	60.0°	± 35° - 65°	FLAT	15.6"	1 MHz
Zone 1 (M)	PLATE	0 - 8.0"	70.0°	± 30°	FLAT	28.0"	1 MHz
Zone 2a (M)	ODBR	55° - 90°	64.8°	20.3°	6.1"	12.2"	1 MHz
TOP HEAD VENT							
N/V (M)	PLATE	0 - 5.0"	60.0°	32° - 56°	FLAT	6.8"	2.25 MHz
ZONE 1-2A (M)	PLATE	0 - 7.0"	70.0°	± 25°	FLAT	9.7"	2.25 MHz
ZONE 2A (M)	PLATE	0 - 8.0"	80.0°	± 25°	FLAT	12.9"	2.25 MHz
TOP HEAD SPARE							
N/V (M)	PLATE	0 - 8.0"	45.0°	15° - 85°	FLAT	4.6"	2.25 MHz
N/V (M)	PLATE	0 - 5.0"	60.0°	15° - 85°	FLAT	6.8"	2.25 MHz
ZONE 1 (M)	PLATE	0 - 4.0"	60.0°	± 25°	FLAT	6.6"	2.25 MHz
ZONE 1-2A (M)	PLATE	0 - 7.5"	70.0°	± 25°	FLAT	10.6"	2.25 MHz
ZONE 2A (M)	PLATE	0 - 9.0"	80.0°	± 25°	FLAT	17.9"	2.25 MHz

NOTES:	•	DESIGN / (FIXTURE) ROTATION FOR 3.0" PKG OFFSET
	#	DESIGN / (FIXTURE) ROTATION FOR 1.45" PKG OFFSET
	~	WEDGE / (FIXTURE) ROTATION ANGLE FOR 2.5" OFFSET
	***	DESIGN / (FIXTURE) ROTATION FOR 1.5" PKG OFFSET
	(M)	MANUAL

Questions on this NIR requirements sheet shall be directed to S.C. Mortenson @ 704 948-0253

Pilgrim - RFO15  
Weld RPV-N7B-NV Top Head Spray  
Spring 2005

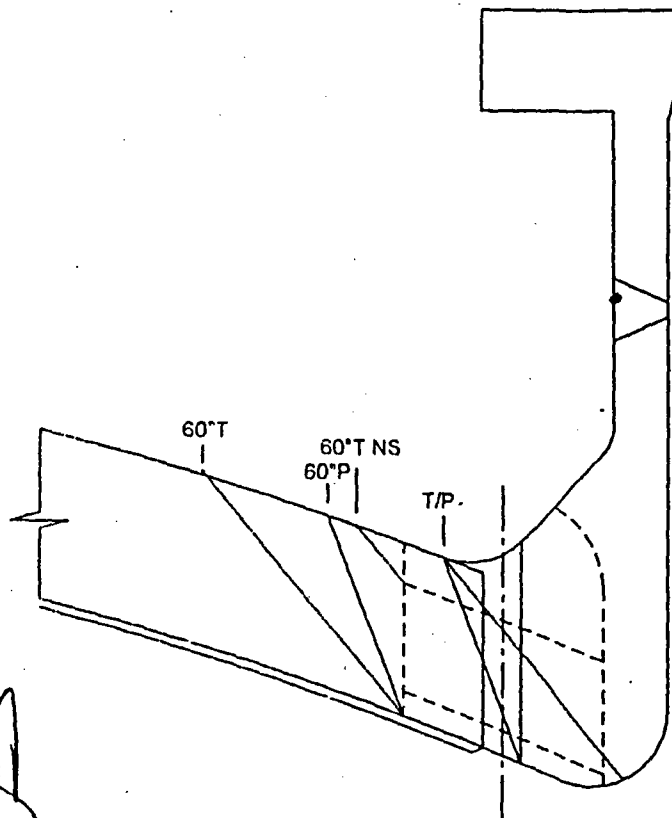
Weld Length = 360. Exam Volume = 28.		CODE CROSS-SECTIONAL AREA		TOTAL CODE COVERAGE		
		Required Exam Area Sq. In.	Area Scanned Manual	Percent of Area Manual	Weld Length Manual	Percent Manual
60° NS T-Scan	A	10.2	1.7	5.1%	180	1.5%
60° S6 T-Scan	A	14.7	11.3	45.4%	180	10.1%
60° S4 / IRS Scan	A	3.1	3.1	11.1%	180	2.8%
60° NS P-Scan	A	10.2	1.3	4.6%	180	1.2%
60° S6 P-Scan	A	25.6	5.9	21.1%	180	5.3%
60° IRS P-Scan	A	3.1	3.1	11.1%	180	2.8%
60° NS T-Scan	B	9.1	2.8	10.0%	180	2.5%
60° S6 T-Scan	B	14.9	14.5	51.8%	180	12.9%
60° S4 / IRS Scan	B	2.9	2.9	10.4%	180	2.6%
60° NS P-Scan	B	10.2	2.2	7.9%	180	2.0%
60° S6 P-Scan	B	25.6	11.8	42.1%	180	10.5%
60° IRS P-Scan	B	3.1	2.9	10.4%	180	2.6%

% Total Composite Coverage = 56.7%

Comments: A - Examined from the top side of the nozzle 180°. Scanning limited due to nozzle configuration.  
B - Examined from the bottom side of the nozzle 180°. Scanning limited due to nozzle configuration.

Note - Rounding methods may affect calculated values.

*San Francisco* 4/28/05



### Nozzle Top Side

60° NS Exam Volume = 10.2 Sq. In.  
 60° FV Exam Volume = 14.7 Sq. In.  
 Inner 15% T Exam Volume = 3.1 Sq. In.

60° NS T-Scan achieved = 1.7 Sq. In.  
 60° FV T-Scan achieved = 11.3 Sq. In.  
 60° Inner 15% T-Scan achieved = 3.1 Sq. In.

#### Scan Plan Coverage T and P scans

60° NS P-Scan achieved = 1.3 Sq. In.  
 60° FV P-Scan achieved = 5.9 Sq. In.  
 60° Inner 15% P-Scan achieved = 3.1 Sq. In.

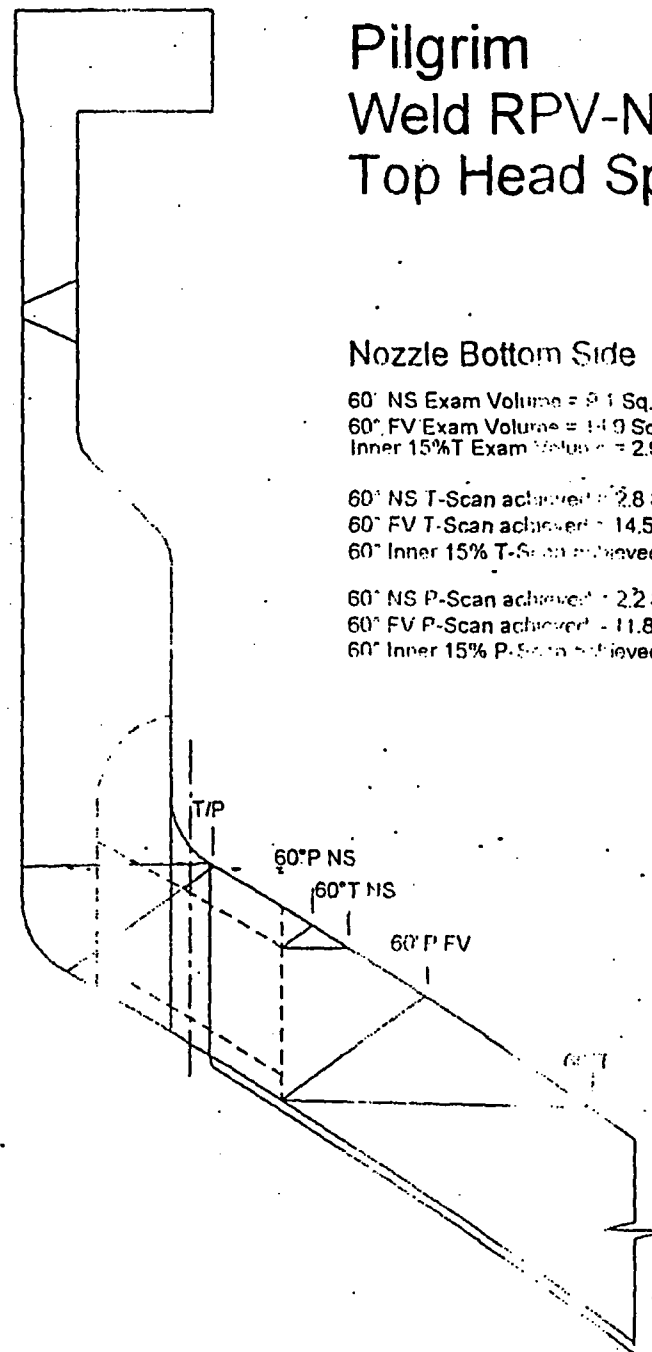
## Pilgrim Weld RPV-N7B-NV Top Head Spray

### Nozzle Bottom Side

60° NS Exam Volume = 9.1 Sq. In.  
 60° FV Exam Volume = 14.9 Sq. In.  
 Inner 15% T Exam Volume = 2.9 Sq. In.

60° NS T-Scan achieved = 2.8 Sq. In.  
 60° FV T-Scan achieved = 14.5 Sq. In.  
 60° Inner 15% T-Scan achieved = 2.9 Sq. In.

60° NS P-Scan achieved = 2.2 Sq. In.  
 60° FV P-Scan achieved = 11.8 Sq. In.  
 60° Inner 15% P-Scan achieved = 2.9 Sq. In.



Scanned by  
 1/14/05  
 Page 8 of 8  
 Page 166/140



GE ENERGY, NUCLEAR

## EXAMINATION SUMMARY SHEET

Report No.:  
PIL-R15-05-030

Site: Pilgrim Nuclear Power Station Component ID: RPV-N8-NV  
Outage: RF-015 NOZZLE TO VESSEL  
System RPV ASME Cat.: B-D ASME Item B3.90 Aug Req N/A

Exams Performed	Data Sheet	Cal Sheet	Procedure	Calibration Block	Examination Personnel	Cert Level	Date
60° Shear	UT-025	N/A	TP04-025 (GE-UT-311)	PIL-5E	J. Kent Montgomery	II	4/22/2005
60° Long.	UT-008	N/A	TP04-018 (GE-UT-300)	CAL-IW2-017	Brad Dummer	III	4/22/2005
60° Long.	UT-007	N/A	TP04-018 (GE-UT-300)	PIL-5B	Brad Dummer	III	4/22/2005

## Examination Results:

Ultrasonic examination results were acceptable to the requirements of ASME B&PV Code Section XI, 1989 Edition no Addenda, and Section XI, 1995 Edition with the 1996 Addenda as modified by the PDI program description and the Federal Register, Part II, Nuclear Regulatory Commission, 10 CFR Part 50 for Category B-D Reactor Pressure Vessel (RPV) Assembly Welds.

Manual scans from outside surface were performed in accordance with procedures TP04-018 Rev. 0 (GE-UT-300 V8) and TP04-029 Rev. 0 (GE-UT-311 V10).

Scan was restricted due to nozzle configuration.

No Indications were recorded.

Manual coverage = 70.6%

Examination results were compared to data report 95-E-263,265,267 from 1995 outage with ☒ No Change

These examinations were performed under Work Order: N/A ☐ Change

This Summary and the following data sheets have been reviewed and accepted by the following personnel:

Prepared By: B/M Level: III Date: 4-24-05 Utility Review: [Signature] Date: 4/28/05  
ANII Review: [Signature] Date: 4/28/05

RWP: 0065  
Dose: 1 mr.

Page 1 of 7

Page 107/240



GE ENERGY, NUCLEAR

Ultrasonic Calibration and Examination Record  
RPV ComponentsSite/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-030 Linearity Sheet: L-006Outage: RF-015Data Sheet Number: UT-008Procedure: TP04-018 (GE-UT-300)Rev.: R0 (V8)DRR: N/ACalibration Block: CAL-IIW2-017

CS      N/A      4.0"  
Material      Size      Thickness

Initial Cal: 0945      Exam. Star: 1540  
Cal Check: N/A      Exam End: 1605  
Cal Check: N/A      Ultracal II      01225  
Final Cal: 1445      Couplant:      Batch  
241890      68° F      68° F  
Thermometer      Initial Cal Temp.      Final Cal Temp.

## DAC Construction

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
1/4	0.6"	1X	80%	1.0"	.58"	2.8
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A

DAC 1X= 58 dBSweep 0-10 2.0" DepthNote N/A dB difference between 3/8 and 5/8 VeeExam Data for Weld: RPV-N6-NVNOZZLE TO VESSEL

Configuration:

QD      72° F  
Exam Surface:      Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>Plate</u>	<u>I</u>	<u>72</u>	<u>NRI</u>	<u>60°</u>
<u>Plate CW/CCW</u>	<u>P</u>	<u>72</u>	<u>NRI</u>	<u>60°</u>

## Search Unit Data

Sigma 22BC-02005      2(1.1"x.62") Rect.  
Manufacturer:      Serial Number:      Size / Shape:

0.65"      60°      58°  
Incident Point:      Nominal Angle:      Measured Angle:

3.0 MHz      SDC-3      Long.  
Frequency:      Model:      Mode:

## Search Unit Cable

RG-174      12'      0  
Cable Type:      Length:      Connectors:

## Instrument Settings

Panometrics / Epoch 4      031540506  
Manufacturer/Model:      Serial Number:

8.615 us      0.234 in./usec.      0.8 - 3.0 MHz  
Delay/Zero:      Velocity:      Narrowband Filter:

Auto      Fullwave      4.0 in.      So / Mod  
Rep Rate:      Rectification:      Range:      Pulsar:

400 Ohms      0      3.03 MHz      Dual  
Damping:      Reject:      Frequency:      Mode:

Off      Off      Off      Off  
DAC:      TVG:      CSC:      DGS:

## Calibration Verification

Field Simulator Block S/N: N/A

Reflector	N/A	N/A	N/A
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Calibration for near surface examination. Exams performed a minimum of 14 dB above reference.

\* Initial cal date: 4/22/05\* Final cal date: 4/23/05

Numerous spot indications seen but not recordable per procedure.

BD      Bred Dummer      III      4/22/2005  
Initials: Examiner      Level Cal/Exam Date:

Initials: Examiner

Level Cal/Exam Date:

N/AN/A

Initials: Examiner

Level

GE Reviewed By: [Signature]Level: IIIDate: 4-24-05Utility Reviewed By: [Signature]Date: 4/25/05ANII Reviewed By: [Signature]Date: 4/24/05

**GE ENERGY, NUCLEAR****Ultrasonic Calibration and Examination Record  
RPV Components**Site/Unit: Pilgrim Nuclear Power Station / 1Data Report Number: PIL-R15-05-030 Linearity Sheet: L-006Outage: RF-015Data Sheet Number: UT-007Procedure: TP04-018 (GE-UT-300)Rev.: R0 (V8)DRR: N/ACalibration Block: PIL-5B

CS Flat 4.35"  
Material Size Thickness  
Initial Cal: 0945 Exam Start: 1540  
Cal Check: N/A Exam End: 1605  
Cal Check: N/A Ultracal II 01225  
Final Cal: 1445 Couplant: Batch  
241890 68°F 68°F  
Thermometer Initial Cal Temp. Final Cal Temp.

**DAC Construction**

Reflector	Hole Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
N/A	N/A	1X	N/A	N/A	N/A	N/A
ID	4.1"	1X	80%	7.8"	8.2"	4.1
N/A	N/A	1X	N/A	N/A	N/A	N/A

DAC 1X= 62 dBSweep 0-10 10.0" DepthNote N/A dB difference between 3/8 and 5/8 Vee**Search Unit Data**

Siema 22BC-02005 2(1.1"x.62")/Rect.  
Manufacturer: Serial Number: Size / Shape:  
0.65" 60° 59°  
Incident Point: Nominal Angle: Measured Angle:  
3.0 MHz SDC-3 Long  
Frequency: Model: Mode:

**Search Unit Cable**

RG-174 12' 0  
Cable Type: Length: Connectors:

**Instrument Settings**

Panometrics / Epoch 4 031540506  
Manufacturer/Model: Serial Number:  
9.615 us 0.234 in./usec. 0.8 - 3.0 MHz  
Delay/Zero: Velocity: Narrowband Filter:  
Auto Fullwave 20.0 in. Sq. / Med  
Rep Rate: Rectification: Range: Pulsar:  
400 Ohms 0 3.03 MHz Dual  
Damping: Reject: Frequency: Mode:  
Off Off Off Off  
DAC: TVG: CSC: DGS:

Exam Data for Weld: RPV-N8-NVNOZZLE TO VESSEL

Configuration:

00 72°F  
Exam Surface: Component Temperature

Weld Examination Area:	Exam Access	Scan dB	Recordable Indications	Exam Angle
<u>Plate</u>	<u>I</u>	<u>68</u>	<u>NRI</u>	<u>60°</u>
<u>Plate CW/CCW</u>	<u>P</u>	<u>68</u>	<u>NRI</u>	<u>60°</u>

**Calibration Verification**Field Simulator Block S/N: N/A

Reflector	N/A	N/A	N/A
Amplitude	N/A	N/A	N/A
Gain (dB)	N/A	N/A	N/A
Sweep (SD)	N/A	N/A	N/A

Acceptable Linearity performed: 4/15/2005

Comments: Cal/Exam Date is the date of examination. See coverage sheet for limitations.

Calibration for full volume examination. Exams performed to maintain a 10% - 20% FSH clad roll.

\* Initial cal date: 4/22/05

\* Final cal date: 4/23/05

Numerous spot indications seen but not recordable per procedure.

RD Brad Dummer III 4/22/2005  
Initials: Examiner Level Cal/Exam Date:

N/A N/A

Initials: Examiner Level

4-24-05  
GE Reviewed By: Level: Date:

Utility Reviewed By: Date: 4/25/05

ANII Reviewed By: Date: 4/25/05

Page 3 of 7

Page 109/240



GE ENERGY, NUCLEAR

## Ultrasonic Calibration and Examination Record Inner Radius Examinations

Site/Unit: Pilgrim Nuclear Power Station / 1

Data Report Number: PIL-R15-05-030 Linearity Sheet: L-004

Outage: RF-015

Data Sheet Number: UT-025

Procedure: TP04-029 (GE-UT-311)

Rev: R0 (V10) DRR: N/A

### Calibration Data for Block: PIL-5B

CS Flat 4.35"  
Material Size Thickness  
Initial Cal: 1030° Exam Start 14:48  
Cal Check: N/A Exam End 15:30  
Cal Check: N/A Ultracel II 01225  
Final Cal: 1405° Couplant: Batch  
241890 68° F 68° F  
Thermometer Initial Cal Temp. Final Cal Temp.

### DAC Construction

Side	Depth	Gain @ 1X	Max Amp	"W" Dim.	Sweep	Screen Div.
ID	<u>4.1"</u>	<u>1X</u>	<u>80%</u>	<u>7.8"</u>	<u>9.18"</u>	<u>4.6</u>
<u>N/A</u>	<u>N/A</u>	<u>1X</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

DAC @ 1X 41 dB

Sweep 0-10 20 Metal Path

Acceptable Linearity performed: 4/15/2005

### Search Unit Data

KBA 010HXM 0.5"x1.0"/Rect.  
Manufacturer: Serial No.: Size/Shape.  
0.75 in. 60° 61°  
Incident Point: Nominal Angle: Measured Angle:  
2.25 MHz 113-892-600 Shear  
Frequency: Model: Mode:

### Search Unit Cable

RG-174 12' 0  
Cable Type: Length: Connectors:

### Instrument Settings

Panametrics / Epoch 4 031574111  
Manufacturer/Model: Serial No.:

14.27 us 0.126 in / ussec 0.6 - 3.0 MHz  
Zero: Velocity: Narrowband Filter:

Auto Fullwave 20.0 in. Sq / Med  
Rep Rate: Rectification: Range: Pulsar/Energy  
400 Ohms 0 2.0 MHz P/E  
Damping: Reject: Frequency: Mode:  
Off: Off: Off: Off:  
DAC: TVG: CSC: DGS:

### Calibration Verification

Field Simulator Block S/N: N/A

Reflector	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Amplitude	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Gain (dB)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Sweep (SD)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Comments: Cal/Exam Date is the date of initial calibration. See coverage sheet for limitations.

Exams performed to maintain a 5% FSH ID roll.

Scanned CW and CCW.

Calibration sweep is 20 metal path, examination range setting is 10.

Calibration for nozzle to vessel weld.

\* Initial Cal: 4/22/2005

\* Final Cal: 4/23/2005

JKM J. Kent Montgomery

II

4/22/2005

Initials: Examiner:

Level

Cal/Exam Date:

Utility Reviewed By:

Date:

GE Reviewed By:

Level:

Date:

ANII Reviewed By:

Date:

Page 4 of 7

Page 110/240



MANUAL DETECTION NOZZLE INNER RADIUS AND BORE INSPECTION REQUIREMENTS							
PLANT		Pilgrim					
PREPARED BY		S.C. MORTENSON			DATE		
					01/10/05		
NOZZLE EXAM ZONE	SCAN SURFACE	SCAN AREA	BEAM ANGLE	ROTATION ANGLE	WEDGE RADIUS	MAX MP	FREQ
RECIRC OUTLET							
N/V Weld (M)	PLATE	0 - 3.0	45.0°	± 70° - 85°	FLAT	10.2"	1 MHz
N/V Weld/Zone 1 (M)	ODBR	50° - 90°	43.0°	83.0°	6.6"	15.9"	1 MHz
Zone 1 (M)	ODBR	35° - 90°	32.9°	82.2°	6.6"	12.9"	1 MHz
Zone 2a (M)	ODBR	35° - 90°	41.2°	48.9°	6.6"	13.4"	1 MHz
RECIRC INLET							
N/V Weld (M)	PLATE	0 - 6.0"	60.0°	± 35° - 65°	FLAT	15.6"	1 MHz
Zone 1 (M)	PLATE	0 - 8.0"	70.0°	± 30°	FLAT	28.0"	1 MHz
Zone 2a (M)	ODBR	55° - 90°	64.8°	20.3°	6.1"	12.2"	1 MHz
TOP HEAD VENT							
N/V (M)	PLATE	0 - 5.0"	60.0°	32° - 56°	FLAT	6.8"	2.25 MHz
ZONE 1-2A (M)	PLATE	0 - 7.0"	70.0°	± 25°	FLAT	9.7"	2.25 MHz
ZONE 2A (M)	PLATE	0 - 8.0"	80.0°	± 25°	FLAT	12.9"	2.25 MHz
TOP HEAD SPARE							
N/V (M)	PLATE	0 - 8.0"	45.0°	15° - 85°	FLAT	4.6"	2.25 MHz
N/V (M)	PLATE	0 - 5.0"	60.0°	15° - 85°	FLAT	6.6"	2.25 MHz
ZONE 1 (M)	PLATE	0 - 4.0"	60.0°	± 58°	FLAT	6.8"	2.25 MHz
ZONE 1-2A (M)	PLATE	0 - 7.5"	70.0°	± 30°	FLAT	10.8"	2.25 MHz
ZONE 2A (M)	PLATE	0 - 9.0"	80.0°	± 25°	FLAT	17.9"	2.25 MHz

W-071  
W-070  
W-069

W-072

NOTES:	•	DESIGN / (FIXTURE) ROTATION FOR 3.0° PKG OFFSET
	#	DESIGN / (FIXTURE) ROTATION FOR 1.45° PKG OFFSET
	**	WEDGE / (FIXTURE) ROTATION ANGLE FOR 2.5° OFFSET
	***	DESIGN / (FIXTURE) ROTATION FOR 1.5° PKG OFFSET
	(M)	MANUAL

Questions on this NIR requirements sheet shall be directed to S.C. Mortenson @ 704 948-0253

Page 6 of 7

% Total Composite Coverage = 70.5%

**Note - Rounding methods may affect calculated values.**

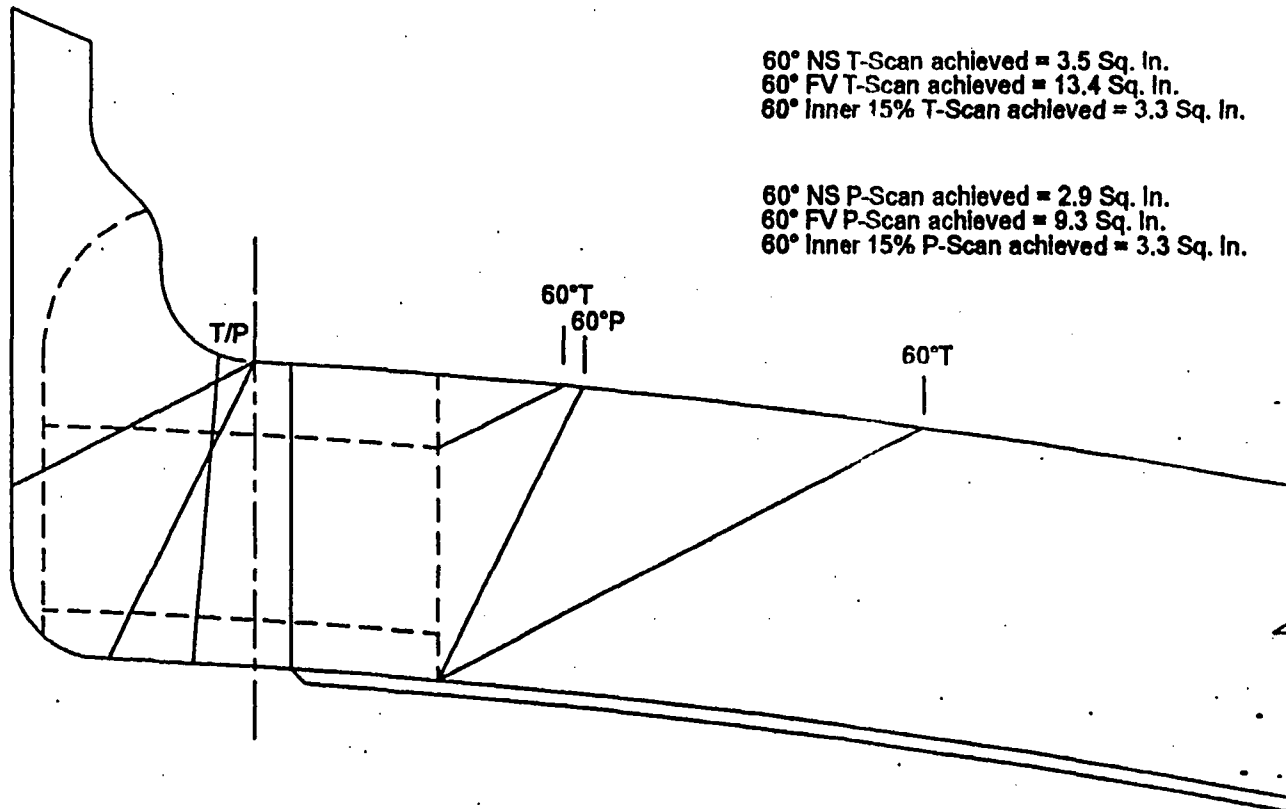
Scout 2 L-11 4/28/05

# Pilgrim Weld RPV-N8-NV Top Head Vent

60° NS Exam Volume = 8.2 Sq. In.  
60° FV Exam Volume = 13.8 Sq. In.  
60° Inner 15% Exam Volume = 3.3 Sq. In.

60° NS T-Scan achieved = 3.5 Sq. In.  
60° FV T-Scan achieved = 13.4 Sq. In.  
60° Inner 15% T-Scan achieved = 3.3 Sq. In.

60° NS P-Scan achieved = 2.9 Sq. In.  
60° FV P-Scan achieved = 9.3 Sq. In.  
60° Inner 15% P-Scan achieved = 3.3 Sq. In.





GE ENERGY, NUCLEAR

## EXAMINATION SUMMARY SHEET

Report No.:  
APR-002

Site: Pilgrim Nuclear Power Station Component ID: 14-A-10A  
Outage: RF-015 VALVE TO PIPE  
System CS ASME Cat.: B-F ASME Item B5.10 Aug Req IGSCC D

Exame Performed	Data Sheet	Cal Sheet	Procedure	Calibration Block	Examination Personnel	Cert Level	Date
45° Shear	UT-075	N/A	ENN-NDE-9.10	PIL-115	Randy Linden	III	4/28/2005
45° RL	UT-076	N/A	ENN-NDE-9.10	PIL-115	Randy Linden	III	4/28/2005
60° Long.	UT-077	N/A	ENN-NDE-9.10	PIL-115	Randy Linden	III	4/28/2005

## Examination Results:

During the manual ultrasonic examination of the above referenced dissimilar metal weld, no indications associated with IGSCC were recorded utilizing a 45° shear wave, 45° and 60° refracted longitudinal wave search units.

The outside surface weld crown did not meet procedure requirements for 360° due to the valve configuration.

22.9% procedural coverage obtained.

37.1% code coverage obtained.

Previous manual reports and drawings were reviewed prior to this summary.

Examination results were compared to data report 99-E-440 from 1999 outage with ☒ No Change

These examinations were performed under Work Order: 03116843 ☐ Change

This Summary and the following data sheets have been reviewed and accepted by the following personnel:

Prepared By: [Signature] Level: II Date: 5-2-05 UT Lvl. III Date: 5-2-05  
Utility Review: [Signature] Date: 5/2/05  
ANII Review: [Signature] Date: 5/2/05

RWP: 0080

Dose: 133 mr.

Page 1 of 8

Page 114/240



GE ENERGY, NUCLEAR

## Wall Thickness Profile Sheet

Site: Pilgrim Nuclear Power Station Unit: 1

Report No.: APR-002

Project: RF-015

System: CS

Component ID Number: 14-A-10A

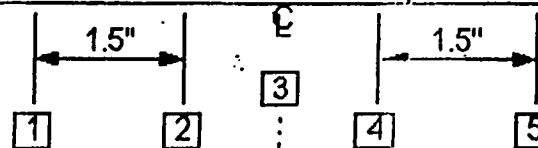
Position	0°	90°	180°	270°
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	0.583	N/A	N/A	N/A
4	0.585	N/A	N/A	N/A
5	0.586	N/A	N/A	N/A

Crown Height: 0.1

Crown Width: 0.9"

Nominal Diameter: 10.0"

Weld Length: 34.0"



VALVE  
UPST Component:

PIPE  
DNST Component:

FLOW →

14-A-10A



Valve

Exam Volume

Pipe

Thickness obtained from previous data

Bandy Linden

Initials: Examiner:

III 4/28/2005

Level: Date:

Michael

GE Reviewed By:

III 5-2-05

Level: Date:

Utility Review

5-2-05

Date:

ANII Review

ANII Review:

5/6/05

Date:

Page 2 of 8

Page 115/240



GE ENERGY, NUCLEAR

# Wall Thickness Profile Sheet

Site: Pilar Nuclear Power Station Unit: 1  
Project: RF-015

Report No.:  
APR-002

System: CS

Component ID Number: 14-A-10A

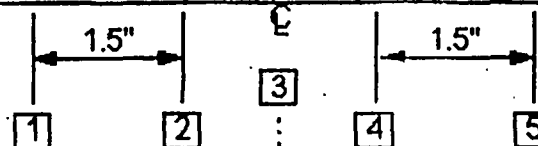
Position	0°	90°	180°	270°
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	0.683	N/A	N/A	N/A
4	0.585	N/A	N/A	N/A
5	0.586	N/A	N/A	N/A

Crown Height: 0.1

Crown Width: 0.8"

Nominal Diameter: 10.0"

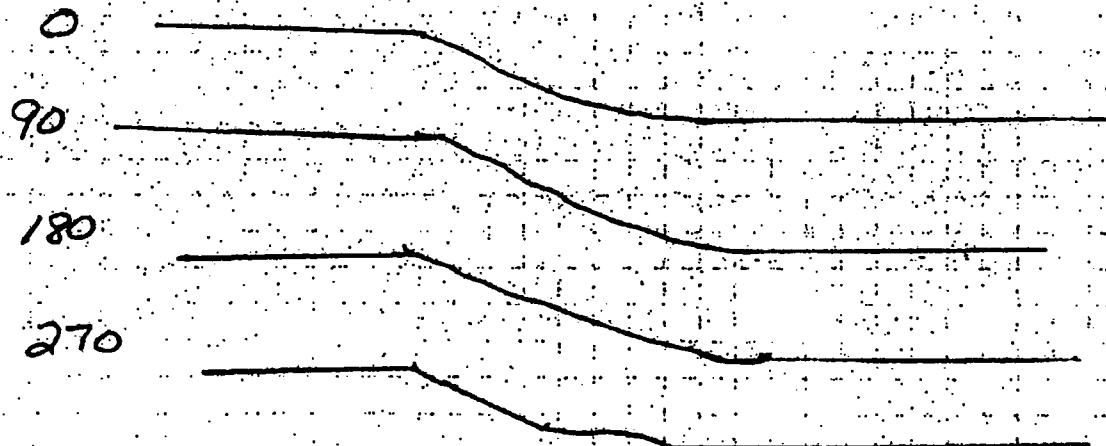
Weld Length: 34.0"



VALVE  
UPST Component:

PIPE  
DNST Component:

FLOW →



VALVE

Flow

PIPE

116/240

Initials: Examiner: Randy Linden

Level: III Date: 4/28/2005

GE Reviewed By: [Signature]

Level: III

Date: 5-2-05

Utility Review: [Signature]

Date: 5-2-05

ANII Review: [Signature]

Date: 5/4/05



GE ENERGY.NUCLEAR

# Ultrasonic Calibration and Examination Record Manual Piping and Components

Site/Unit: Pilgrim Nuclear Power Station / 1  
Outage: RF-015

Report Number: APR-002  
Data Sheet Number: UT-075  
Linearity Sheet: L-003

Calibration Data for Block: PIL-115

Procedure: ENN-NDE-9.10

Ver / Rev: 0

DRR: N/A

CS	10"	0.594"	Calibration	Cal Time
Material	Size	Thick	Initial Cal:	0740
<u>Ultrason II</u>	<u>01225</u>		Cal Check:	0817
Couplant:	Couplant batch		Cal Check:	1010
<u>241890</u>	<u>68°F</u>		Final Cal:	1103
Thermometer S/N	Cal Temp.			

## Search Unit Data

KBA 010CJP 0.50" Round  
Manufacturer: Serial Number: Size/Shape:  
0.55 in. 45° 45°  
Incident Point: Nominal Angle: Measured Angle:  
2.25 MHz Como-G Shear 1  
Frequency: Style: Mode: Elements:

## Search Unit Cable

RG-174 6' 0  
Cable Type: Length: Connectors:

## Instrument Settings

Panametrics / Epoch 4 031573611  
Manufacturer/Model: Serial Number:  
5.295 us 0.128 in./ussec 0.8 - 3.0 MHz  
Zero: Velocity: Narrowband Filter:  
Auto Fullwave 1.5 in So / Max  
Rep Rate: Rectification: Range: Pulsar/Energy:  
400 Ohms Off 2.0 MHz P/E  
Damping: Reject: Frequency: Mode:

## Exam Comments / Limitations:

Scanned downstream side only.  
Did not scan on weld due to configuration.  
Maintained a 5% to 20% ID roll during examination.

## DAC Construction

Scan Direction Ax  
Cal Reflector ID Notch  
Signal Amplitude 80%  
Signal Sweep: 5.9 Dly  
Signal dB: 9.0 dB  
Sweep 0-10 = 1.5 in Metal Path

## Calibration Verification

Field Simulator Block S/N: CAL-TW2-017

Reflector	<u>0.60"</u>	<u>N/A</u>
Amplitude	<u>40%</u>	<u>N/A</u>
Gain (dB)	<u>9 dB</u>	<u>N/A</u>
Sweep (SD)	<u>5.6</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Exam Data for Weld: 14-A-10A

VALVE TO PIPE

Configuration:

02 85°F 241890  
Exam Surface: Exam Temp. Exam Thermometer

Axial Circ	UPST DNST	Scan dB	Recordable Indications	Exam Angle
<u>Axial</u>	<u>DNST</u>	<u>23</u>	<u>NRI</u>	<u>45°</u>
<u>Circ</u>	<u>DNST</u>	<u>23</u>	<u>NRI</u>	<u>45°</u>

Exam Start: 0806 Exam End: 0940

12

Randy Linden

III

Initials: Examiner:

Level:

N/A

N/A

Initials: Examiner 2:

Level:

Initial Cal/Exam Date: 4/28/2005

W. Kaly

GE Reviewed By:

III

5-2-05

Level:

Date:

W. L. L. III

Utility Review:

5-2-05

Date:

W. L. L. III

ANII Review:

5/2/05

Date:

Page 4 of 8

Page 117/240



GE ENERGY NUCLEAR

Ultrasonic Calibration and Examination Record  
Manual Piping and ComponentsSite/Unit: Pilgrim Nuclear Power Station / 1  
Outage: RF-015Report Number: APR-002  
Data Sheet Number: UT-076  
Linearity Sheet: L-003Calibration Data for Block: PIL-115Procedure: ENN-NDE-9.10Ver / Rev: 0DRR: N/A

CS	10"	0.564"	Calibration	Cal Time
Material	Size	Thick	Initial Cal:	0750
Ultracel II	01225		Cal Check:	0905
Couplant:	Couplant batch		Cal Check:	0855
241890	68°F		Final Cal:	1102
Thermometer S/N	Cal Temp.			

## Search Unit Data

RTD 09-177 27x101 mm/Rect.  
Manufacturer: Serial Number Size/Shape:  
0.32 in. 45° 44°  
Incident Point: Nominal Angle: Measured Angle:  
2.0 Mhz TRL2-Aust RL 2  
Frequency: Style: Mode: Elements:

## Search Unit Cable

RG-174 6' 0  
Cable Type: Length: Connectors:

## Instrument Settings

Parametrics / Epoch 4 091573611  
Manufacturer/Model: Serial Number:  
7.535 in 0.236 in/Ampac 0.8-3.0  
Zero: Velocity: Narrowband Filter:  
Auto Fullwave 2.0 in Sq./Max  
Rep Rate: Rectification: Range: Pulsar/Energy:  
400 Ohms Off 2.0 Mhz Dual  
Damping: Reject: Frequency: Mode:

## DAC Construction

Scan Direction Ax  
Cal Reflector ID Notch  
Signal Amplitude 80%  
Signal Sweep: 5.9 Div  
Signal dB: 37.9 dB  
Sweep 0-10 = 1.5 in Metal Path

## Calibration Verification

Field Simulator Block S/N: CAL-11W2-017

Reflector	0.60"	N/A
Amplitude	80%	N/A
Gain (dB)	20.3	N/A
Sweep (SD)	5.6	N/A

Acceptable Linearity performed: 4/15/2005Exam Data for Weld: 14-A-10A

## VALVE TO PIPE

Configuration:

00 85°F 241890  
Exam Surface: Exam Temp. Exam Thermometer

Axial	UPST	Scan dB	Recordable	Exam
Circ	DNST		Indications	Angle
Axial	DNST	43.9	NFI	45°
Circ	DNST	43.9	NFI	45°

## Exam Comments / Limitations:

Scanned downstream side only.  
Did not scan on weld due to configuration.  
Maintained a 20% ID roll during examination.

Exam Start: 0906 Exam End: 0940

Randy Linden III  
Initials: Examiner: Level:

N/A N/A  
Initials: Examiner 2: Level:

Initial Cal/Exam Date: 4/28/2005

UT-076 5-2-05  
GE Reviewed By: Level: Date:

UT-076 5-2-05  
Utility Review: Date:

ANII Review:

Date:

Page 5 of 8

Page 118/240





GE ENERGY NUCLEAR

# Ultrasonic Calibration and Examination Record Manual Piping and Components

Site/Unit: Pilgrim Nuclear Power Station / 1  
Outage: RF-015

Report Number: APR-002  
Data Sheet Number: UT-077  
Linearity Sheet: L-003

Calibration Data for Block: PIL-115

Procedure: ENN-NDE-9.10

Ver / Rev: 1

DRR: N/A

CS	10"	0.594"	Calibrator:	Cal Time
Material	Size	Thick	Initial Cal:	0800
<u>Ultrason II</u>	<u>01225</u>		Cal Check:	0830
Couplant:	Couplant batch		Cal Check:	N/A
<u>241890</u>	<u>68°F</u>		Final Cal:	1100
Thermometer S/N	Cal Temp.			

## Search Unit Data

HTD 03-178 2(7x10) mm/Rect.  
Manufacturer: Serial Number Size/Shape:  
0.32 in. 60° 60°  
Incident Point: Nominal Angle: Measured Angle:  
2.0 MHz TBL2-Aust Long 2  
Frequency: Style: Mode: Elements:

## Search Unit Cable

RG-174 6' 0  
Cable Type: Length: Connectors:

## Instrument Settings

Parametrics / Epoch 4 031573611  
Manufacturer/Model: Serial Number:  
6.155 MHz 0.222 in./usec. 0.8-3.0  
Zero: Velocity: Narrowband Filter:  
Auto Fullwave 2.0 in Sa / Max  
Rep Rate: Rectification: Range: Pulsar/Energy:  
400 Ohms Off 2.0 MHz Dual  
Damping: Reject: Frequency: Mode:

## DAC Construction

Scan Direction Ax  
Cal Reflector ID Notch  
Signal Amplitude 80%  
Signal Sweep: 5.9 Div  
Signal dB: 47.2 dB  
Sweep 0-10 = 2.0 in Metal Path

## Calibration Verification

Field Simulator Block S/N: CAL-FW2-017

Reflector	<u>0.60"</u>	<u>N/A</u>
Amplitude	<u>80%</u>	<u>N/A</u>
Gain (dB)	<u>42.4</u>	<u>N/A</u>
Sweep (SD)	<u>6.0</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Exam Data for Weld: 14-A-10A

VALVE TO PIPE

Configuration:

02 85°F 241890  
Exam Surface: Exam Temp. Exam Thermometer

## Exam Comments / Limitations:

Scanned downstream side only.  
Did not scan on weld due to configuration.  
Maintained a 20-30% ID roll during examination.

Axial	UPST	Scan dB	Recordable	Exam
Circ	DNST		Indications	Angle
<u>Axial</u>	<u>DNST</u>	<u>47.2</u>	<u>NFI</u>	<u>60°</u>
<u>Circ</u>	<u>DNST</u>	<u>47.2</u>	<u>NFI</u>	<u>60°</u>

Exam Start: 0806 Exam End: 0940

(Signature)

Randy Linden

Initials: Examiner:

Level:

N/A

N/A

Initials: Examiner 2:

Level:

Initial Cal/Exam Date: 4/28/2005

(Signature)

GE Reviewed By:

Level:

Date:

(Signature) UT CVI III 5-2-05

Utility Review:

Date:

(Signature) 5/2/05

ANII Review:

Date:

Page 6 of 8

Page 119/240



GE ENERGY, NUCLEAR

## EXAMINATION SUMMARY SHEET

Report No.:  
APR-005

Site: Pilgrim Nuclear Power Station Component ID: 14-B-10A  
Outage: RF-015 VALVE TO PIPE  
System CS ASME Cat.: B-F ASME Item B5.10 Aug Req IGSCC D

Exams Performed	Data Sheet	Cal Sheet	Procedure	Calibration Block	Examination Personnel	Cert Level	Date
45° Shear	UT-072	N/A	ENN-NDE-9.10	PIL-115	Randy Linden	III	4/28/2005
45° RL	UT-073	N/A	ENN-NDE-9.10	PIL-115	Randy Linden	III	4/28/2005
60° Long.	UT-074	N/A	ENN-NDE-9.10	PIL-115	Randy Linden	III	4/28/2005

## Examination Results:

During the manual ultrasonic examination of the above referenced dissimilar metal weld, no indications associated with IGSCC were recorded utilizing a 45° shear wave, 45° and 60° refracted longitudinal wave search units.

The outside surface weld crown did not meet procedure requirements for 360° due to the valve configuration and shrinkage at the weld toe.

10.1% procedural coverage obtained.

22.1% code coverage obtained.

Previous manual reports and drawings were reviewed prior to this summary.

Examination results were compared to data report 99-E-441 from 1999 outage with ☒ No Change

These examinations were performed under Work Order: 03118643 ☐ Change

This Summary and the following data sheets have been reviewed and accepted by the following personnel:

Prepared By: [Signature] Level: III Date: 5-2-05 Utility Review: [Signature] Date: 5-2-05  
ANII Review: [Signature] Date: 5/3/05

RWP: 0080

Dose: 133 mr.

Page 1 of 6

Page 120/240



GE ENERGY, NUCLEAR

## Wall Thickness Profile Sheet

Site: Pilgrim Nuclear Power Station Unit: 1

Report No.:

Project: RF-015

APR-005

System: CS

Component ID Number: 14-B-10A

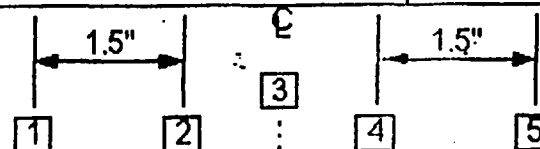
Position	0°	90°	180°	270°
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	0.728	N/A	N/A	N/A
4	0.545	N/A	N/A	N/A
5	0.557	N/A	N/A	N/A

Crown Height: 0.1

Crown Width: 1.0"

Nominal Diameter: 10.0"

Weld Length: 24.0"

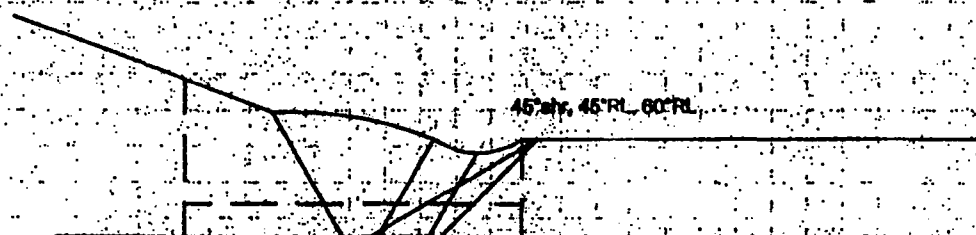


VALVE  
UPST Component:

PIPE  
DNST Component:

FLOW →

14-B-10A



Valve

Exam Volume

Pipe

Thickness obtained from previous data

Rev For Randy Linden

RI 4/28/2005

Initials: Examiner:

Level: Date:

GE Reviewed By: [Signature]

Level: III

Date: 5-2-05

Utility Review: [Signature]

Date: 5-2-05

ANII Review: [Signature]

Date: 5/3/05

Page 121/240



GE ENERGY, NUCLEAR

# Wall Thickness Profile Sheet

Site: Piketon Nuclear Power Station Unit: 1  
Project: RF-018

Report No.:  
APR-005

System: CS

Component ID Number: 14-B-10A

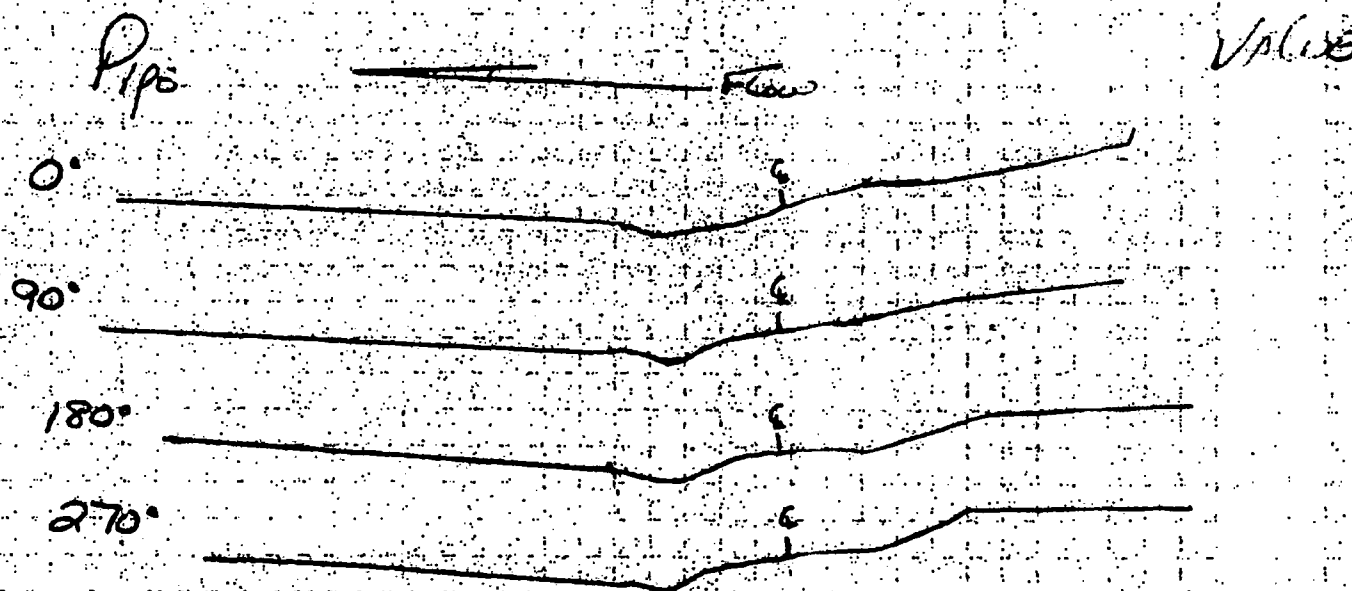
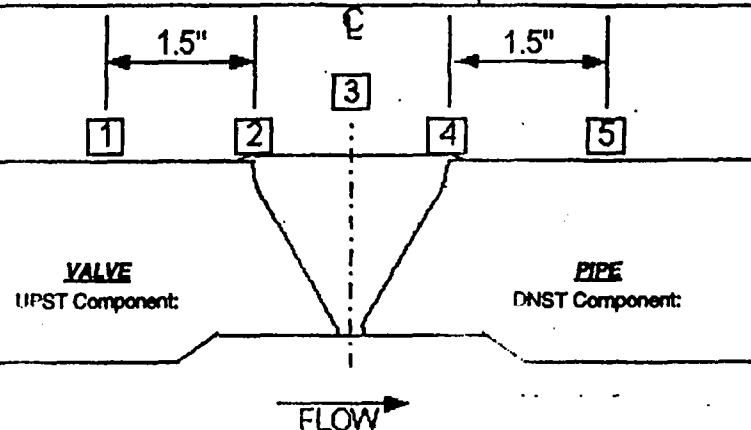
Position	0°	90°	180°	270°
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	0.728	N/A	N/A	N/A
4	0.545	N/A	N/A	N/A
5	0.557	N/A	N/A	N/A

Crown Height: 0.1

Crown Width: 1.0"

Nominal Diameter: 10.0"

Weld Length: 34.0"



Ⓟ

Randy Linden

III 4/28/2005

Initials: Examiner:

Level: Date:

McKee

III 5-2-05

GE Reviewed By:

Level: Date:

[Signature]

III 5-2-05

Utility Review:

Date:

Carl Herman

ANII Review:

Date:



GE ENERGY NUCLEAR

# Ultrasonic Calibration and Examination Record Manual Piping and Components

Site/Unit: Pilgrim Nuclear Power Station / 1  
Outage: RF-015

Report Number: APR-005  
Data Sheet Number: UT-072  
Linearity Sheet: L-003

Calibration Data for Block: PIL-115

CS	10"	0.594"	Calibrator:	Cal Time:
Material	Size	Thick	Initial Cal:	0740
Ultracal II	01225		Cal Check:	0917
Couplant:	Couplant batch		Cal Check:	1010
241890	68°F		Final Cal:	1103
Thermometer S/N	Cal Temp.			

## DAC Construction

Scan Direction: Ax  
Cal Reflector: ID Notch  
Signal Amplitude: 80%  
Signal Sweep: 5.9 Div  
Signal dB: 9.0 dB  
Sweep 0-10 = 1.5 in Metal Path

## Calibration Verification

Field Simulator Block S/N: CAL-1W2-017

Reflector	0.60"	N/A
Amplitude	40%	N/A
Gain (dB)	9 dB	N/A
Sweep (SD)	5.8	N/A

Acceptable Linearity performed: 4/15/2005

Exam Data for Weld: 14-B-10A

## VALVE TO PIPE

Configuration:

Exam Surface: 02 Exam Temp: 85°F Exam Thermometer: 241890

Axial Circ	UPST DNST	Scan dB	Recordable Indications	Exam Angle
Axial	DNST	23	NRI	45°
Circ	DNST	23	NRI	45°

Procedure: ENN-NDE-9.10

Ver / Rev: 0 DRR: N/A

## Search Unit Data

KBA 010CJP 0.50"/Round  
Manufacturer: Serial Number: Size/Shape:  
0.55 in. 45° 45°  
Incident Point: Nominal Angle: Measured Angle:  
2.25 MHz Como-G Shear 1  
Frequency: Style: Mode: Elements:

## Search Unit Cable

RG-174 6' 0  
Cable Type: Length: Connectors:

## Instrument Settings

Panometrics / Epoch 4 031573611  
Manufacturer/Model: Serial Number:  
0.205 in 0.128 in/Sec 0.8 - 3.0 MHz  
Zero: Velocity: Narrowband Filter:  
Auto Fullwave 1.5 in Sq / Max  
Rep Rate: Rectification: Range: Pulsar/Energy:  
400 Ohms Off 2.0 MHz P/E  
Damping: Reject: Frequency: Mode:

## Exam Comments / Limitations:

Scanned downstream side only.  
Did not scan on weld due to configuration.  
Lift-off signals seen due to weld shrinkage.  
Maintained a 5% to 20% ID roll during examination.

Exam Start: 0945 Exam End: 1025

10

Randy Linden

Initials: Examiner:

Level:

N/A

Initials: Examiner 2:

Level:

Initial Cal/Exam Date: 4/28/2005

GE Reviewed By:

Level: Date:

Utility Review:

Date:

ANII Review:

Date:

Page 4 of 6

Page 123/240



GE ENERGY NUCLEAR

# Ultrasonic Calibration and Examination Record Manual Piping and Components

Site/Unit: Pilgrim Nuclear Power Station / 1  
Outage: RF-015

Report Number: APR-005  
Data Sheet Number: UT-073  
Linearity Sheet: L-003

Calibration Data for Block: PIL-111

CS	10"	0.594"	Calibration:	Cal Time
Material	Size	Thick	Initial Cal:	0750
<u>Ultracel II</u>	<u>01225</u>		Cal Check:	0905
Couplant:	Couplant batch		Cal Check:	0955
<u>241890</u>	<u>88°F</u>		Final Cal:	1102
Thermometer S/N	Cal Temp.			

## DAC Construction

Scan Direction: Ax  
Cal Reflector: ID Notch  
Signal Amplitude: 80%  
Signal Sweep: 5.9 Div  
Signal dB: 37.9 dB  
Sweep 0-10 = 1.5 in Metal Path

## Calibration Verification

Field Simulator Block S/N: CAL-HW2-017

Reflector	<u>0.60"</u>	<u>N/A</u>
Amplitude	<u>80%</u>	<u>N/A</u>
Gain (dB)	<u>30.3</u>	<u>N/A</u>
Sweep (SD)	<u>5.6</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Exam Data for Weld: 14-B-10A

## VALVE TO PIPE

Configuration:

02 85°F 241890  
Exam Surface: Exam Temp. Exam Thermometer

Axial	UPST	Scan dB	Recordable	Exam
Circ	DNST		Indications	Angle
<u>Axial</u>	<u>DNST</u>	<u>43.9</u>	<u>NFI</u>	<u>45°</u>
<u>Circ</u>	<u>DNST</u>	<u>43.9</u>	<u>NFI</u>	<u>45°</u>

Procedure: ENN-NDE-9.10

Ver / Rev: 2 DRR: N/A

## Search Unit Data

RTP 03-177 2(7x10) mm/Rect.  
Manufacturer: Serial Number Size/Shape:  
0.32 in. 45° 44°  
Incident Point: Nominal Angle: Measured Angle:  
2.0 MHz TRI-2-Aux RL 2  
Frequency: Style: Mode: Elements:

## Search Unit Cable

RG-174 6' 2  
Cable Type: Length: Connectors:

## Instrument Settings

Panametrics / Epoch 4 031573811  
Manufacturer/Model: Serial Number:  
7.525 in 0.238 in/Insec. 0.8 - 3.0  
Zero: Velocity: Narrowband Filter:  
Auto Fullwave 2.0 in So / Max  
Rep Rate: Rectification: Range: Pulsar/Energy:  
400 Ohms Off 2.0 MHz Dual  
Damping: Reject: Frequency: Mode:

## Exam Comments / Limitations:

Scanned downstream side only.  
Did not scan on weld due to configuration.  
Lift-off signals seen due to weld shrinkage.  
Maintained a 20% ID roll during examination.

Exam Start: 0945 Exam End: 1025

RL

Randy Linden

III

Initials: Examiner:

Level:

N/A

N/A

Initials: Examiner 2:

Level:

Initial Cal/Exam Date: 4/28/2005

GE Reviewed By: [Signature]

Level: II

Date: 5-2-05

Utility Review: [Signature]

Date: 5-2-05

ANII Review: [Signature]

Date: 5/2/05

Page 5 of 6

Page 124/240



**GE ENERGY NUCLEAR**

# **Ultrasonic Calibration and Examination Record Manual Piping and Components**

Site/Unit: Pilgrim Nuclear Power Station / 1  
Outage: RF-015

Report Number: APR-005  
Data Sheet Number: UT-074  
Linearity Sheet: L-003

Calibration Data for Block: PIL-115

Procedure: ENN-NDE-9.10

Ver / Rev: 2

DRR: N/A

<u>CS</u>	<u>10"</u>	<u>0.594"</u>	Calibration	Cal Time
Material	Size	Thick	Initial Cal:	<u>0800</u>
<u>Ultracal II</u>	<u>01225</u>		Cal Check:	<u>0930</u>
Couplant:	Couplant batch		Cal Check:	<u>N/A</u>
<u>241890</u>	<u>68°F</u>		Final Cal:	<u>1100</u>
Thermometer S/N	Cal Temp.			

## Search Unit Data

RTD 03-179 27x10 mm/Rect.  
Manufacturer: Serial Number Size/Shape:  
0.32 in. 60° 60°  
Incident Point: Nominal Angle: Measured Angle:  
2.0 MHz TRL2-Aux1 Long 2  
Frequency: Style: Mode: Elements:

## Search Unit Cable

RQ-174 6' 0  
Cable Type: Length: Connectors:

## Instrument Settings

Panametrics / Epoch 4 031573611  
Manufacturer/Model: Serial Number:  
6.155 us 0.222 in./ussec 0.8-3.0  
Zero: Velocity: Narrowband Filter:  
Auto Fullwave 2.0 in Sg./Max  
Rep Rate: Rectification: Range: Pulsar/Energy:  
400 Ohms Off 2.0 MHz Dual  
Damping: Reject: Frequency: Mode:

## DAC Construction

Scan Direction Ax  
Cal Reflector ID Notch  
Signal Amplitude 80%  
Signal Sweep: 5.9 Div  
Signal dB: 47.2 dB  
Sweep 0-10 = 2.0 in Metal Path

## Calibration Verification

Field Simulator Block S/N: CAL-NW2-017

Reflector	<u>0.80"</u>	<u>N/A</u>
Amplitude	<u>80%</u>	<u>N/A</u>
Gain (dB)	<u>42.4</u>	<u>N/A</u>
Sweep (SD)	<u>6.0</u>	<u>N/A</u>

Acceptable Linearity performed: 4/15/2005

Exam Data for Weld: 14-B-10A

## VALVE TO PIPE

Configuration:

OD 85°F 241890  
Exam Surface: Exam Temp. Exam Thermometer

## Exam Comments / Limitations:

Scanned downstream side only.  
Did not scan on weld due to configuration.  
\*Weld shrinkage caused Eloff signals, causing geometric reflectors.  
Maintained a 20 -30% ID roll during examination.

Axial Circ	UPST DNST	Scan dB	Recordable Indications	Exam Angle
<u>Axial</u>	<u>DNST</u>	<u>47.2</u>	<u>NFI</u>	<u>60°</u>
<u>Circ</u>	<u>DNST</u>	<u>47.2</u>	<u>NFI</u>	<u>60°</u>

Exam Start: 0945 Exam End: 1025

RD

Randy Linden

III

Initials: Examiner:

Level:

N/A

N/A

Initials: Examiner 2:

Level:

Initial Cal/Exam Date: 4/28/2005

GE Reviewed By: [Signature]

Level: III

Date: 5-2-05

Utility Review: [Signature]

Date: 5-2-05

ANII Review: [Signature]

Date: 5/3/05

Page 6 of 6

Page 125/240



GE ENERGY, NUCLEAR

## EXAMINATION SUMMARY SHEET

Report No.:  
APR-007Site: Pilgrim Nuclear Power Station Component ID: 2R-N1B-1Outage: RF-015NOZZLE TO SAFE ENDSystem RPV ASME Cat.: B-F ASME Item B5.10 Aug Req IGSCC D

Exams Performed	Data Sheet	Cal Sheet	Procedure	Calibration Block	Examination Personnel	Cert Level	Date
45° / RL	N/A	APC-001	TP04-016 (GE-UT-205) R1 (V17)	PIL-79	Richard Jasken	II	4/21/2005
45° / RL	N/A	APC-002	TP04-016 (GE-UT-209) R1 (V17)	PIL-79	Richard Jasken	II	4/21/2005
45° / S	N/A	APC-003	TP04-016 (GE-UT-209) R1 (V17)	PIL-79	Richard Jasken	II	4/21/2005
60° / RL	N/A	APC-004	TP04-016 (GE-UT-209) R1 (V17)	CAL-DPTH-063	Richard Jasken	II	4/21/2005
60° / RL	N/A	APC-006	TP04-016 (GE-UT-209) R1 (V17)	CAL-DPTH-063	Richard Jasken	II	4/21/2005
N/A	APD-001	N/A	TP04-016 (GE-UT-209) R1 (V17)	N/A	Richard Jasken	II	4/21/2005

## Examination Results:

During the automated ultrasonic examination of the above referenced dissimilar metal weld, no indications associated with IGSCC or any reportable indications were recorded with the "SMART 2000" system utilizing a 45° shear wave and 45° & 60° refracted longitudinal wave search units.

The 45° shear wave examinations were performed from both the upstream and downstream sides of the weld. Root geometry, beam, redirect and non-relevant indications were recorded.

The 45° RL wave examinations were performed from both the upstream and downstream sides of the weld. Root geometry, acoustic interface and non-relevant indications were recorded.

The 60° RL wave examinations were performed from both the upstream and downstream sides of the weld. Non-relevant indications were recorded.

Transducer lift off was observed at the carbon steel nozzle to butter interface due to the surface contour. Reference the data sheet for the parameters. Due to this lift off, the upstream circumferential scans are considered a best effort examination. 73% coverage was obtained per the procedure and 75% coverage of the code required examination volume.

Previous automated reports and drawings were reviewed prior to this summary.

Examination results were compared to data report 95-E-0643 from 1995 outage with ☒ No Change

These examinations were performed under Work Order: 03116627 ☐ Change

This Summary and the following data sheets have been reviewed and accepted by the following personnel:

Prepared By: [Signature] Level: III Date: 4-23-05 Utility Review: [Signature] Date: 4/26/05  
ANII Review: [Signature] Date: 4/29/05

RWP: 0082

Dose: 2200 mr.

Page 1 of 12

Page 126/240





GE ENERGY, NUCLEAR

# Wall Thickness Profile Sheet

Site: Pilarim Nuclear Power Station Unit: 1

Report No.: APR-007

Project: RF-015

System: RPV

Component ID Number: 2R-N1B-1

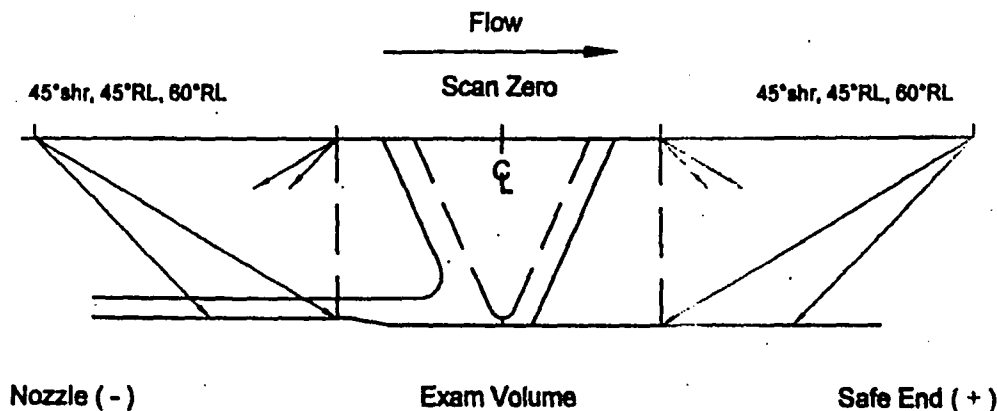
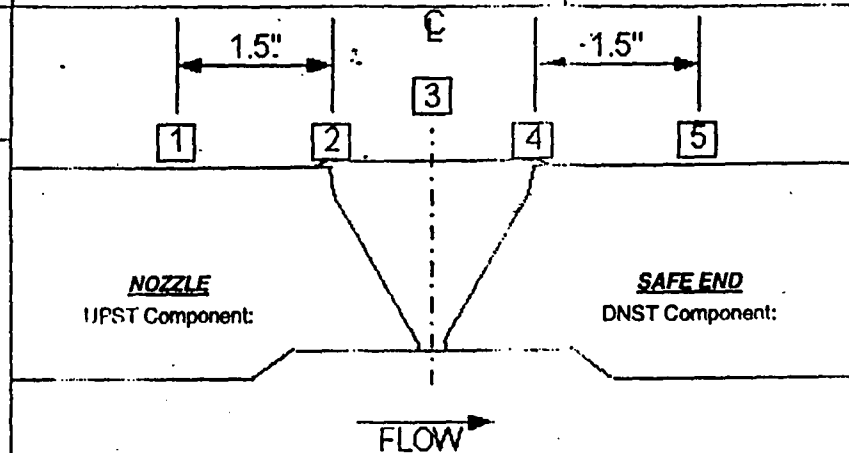
Position	0°	90°	180°	270°
1	1.90"	N/A	N/A	N/A
2	1.95"	N/A	N/A	N/A
3	2.05"	N/A	N/A	N/A
4	1.95"	N/A	N/A	N/A
5	1.90"	N/A	N/A	N/A

Crown Height: 2.05"

Crown Width: 1.95"

Nominal Diameter: 28.0"

Weld Length: 92.0"



Thickness obtained from previous data  
Weld preps obtained from drawings; M1A80 and M1A73 sheet 2  
Scale - 1:2  
\* - Concavity found at CS/Inc Interface. See page 3 of this report.

CRB

Charles Barrett

II 4/20/2005

Initials: Examiner:

Level: Date:

M. J. Hines

III 4/23/05

GE Reviewed By:

Level: Date:

Scott J. Quinn

LI-III 4/26/05

Utility Review:

Date:

Chris Hines

4/29/05

ANII Review:

Date:

Page 127/240



GE ENERGY, NUCLEAR

# Indication / Coverage Plot Sheet

Site: Pilarim Nuclear Power Station Unit: 1

Project: RF-015

Report Number.: APR-007

System: RPV

Component ID Number: 2R-N1B-1

Configuration: NOZZLE

SAFE END

NOZZLE

0°

CS / INC

SAFE END

90°

CS / INC

180°

CS / INC

270°

CS / INC

FLOW

CS

Charles Barrett

II

4/20/2005

Initials: Examiner:

Level: Date:

GE Reviewed By:

Level:

Date:

Utility Reviewed By:

Date:

ANII Reviewed By:

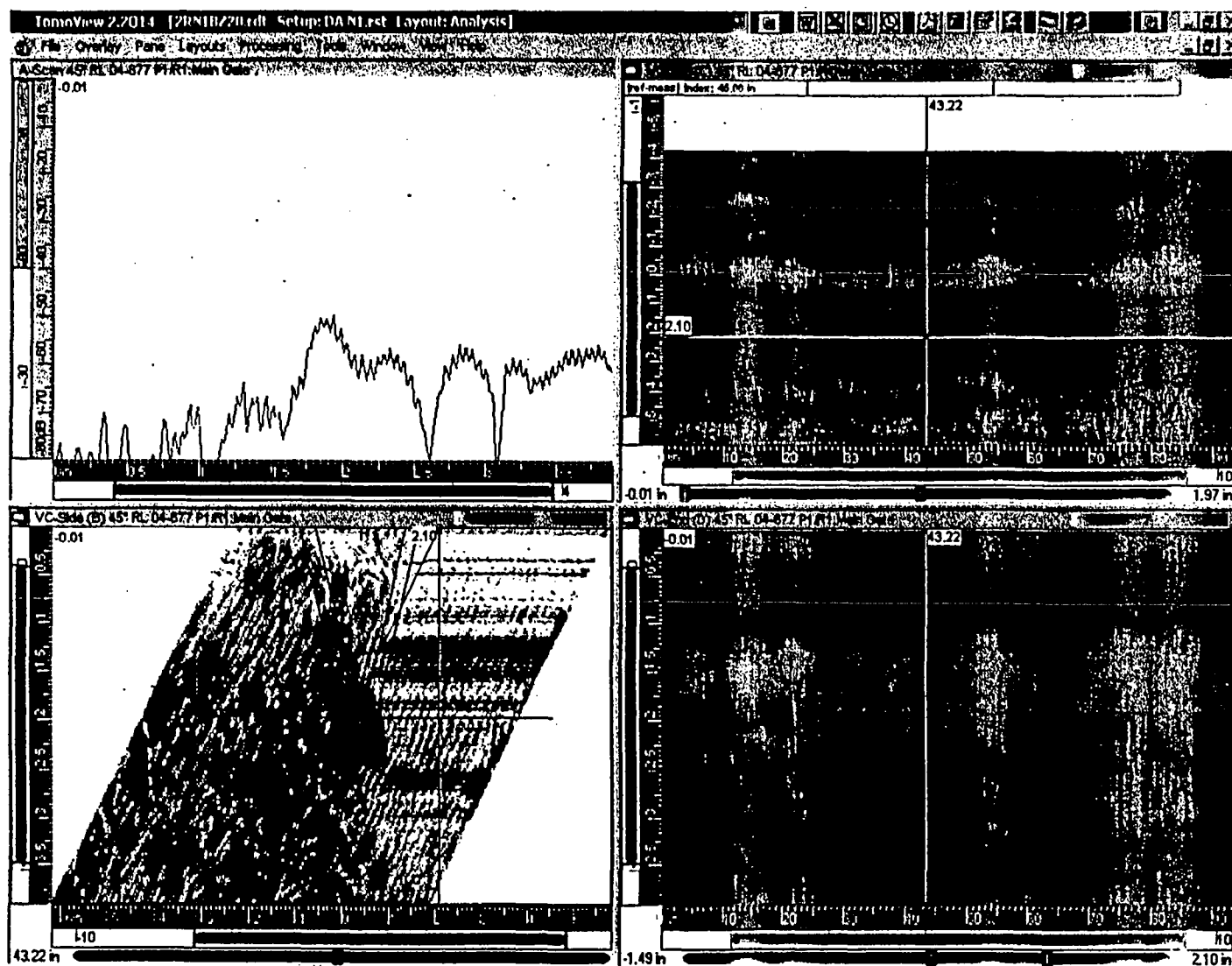
Date:

Page 128/240



N1B Nozzle to Safe End

45°RL LKUP Typical Geometry



Page 129/240





GE Nuclear Energy

Ultrasonic Data / Scan Parameter Sheet  
(Automated with Micro TomoScan)

Site: Pilgrim Nuclear Power Station

Procedure: TP04-018 (GE-UT-209)

System: RPV

Report No.: APR-007

Unit: 1

Version / Revision: R1 (V17)

Weld No.: 2R-N1B-1

Data Sheet No.: APD-001

Project No.: RF-015

DRR: N/A

Configuration: NOZZLE TO SAFE END

Calibration Sheet No.

Scanner Information

Weld Reference, (GE-ADM-1005): Lo: Top Dead Center Wo: Weld Centerline Motor Steps: Cir: 1710 Tra: 2500  
Examination Surface: OD Exam Surface Temperature: 94 °F Thermometer S/N: 241687 Exam Start: 4/21/2005 5:50:00 AM  
Exam End: 4/22/2005 9:09:00 AM

Nominal Pipe Size 28" Nominal Thickness: 1.90" Weld Width: 1.83" Weld Length: 92"  
Scanner: NOVA Track Diameter: 32" Arm Length: 18" Track Location: 8" DOWNSTREAM OF SE TAPER

X Positive Scan Direction: DOWNSTREAM Y Positive Scan Direction: CW  
Resolution: ≤ 0.036" Index Ax / Circ: ≤ 0.19" ≤ 0.05" Axial Scan Speed: ≤ 2.0 in./Sec. Circ Scan Speed: ≤ 1.0 in./Sec.

Scanner Zero Positions: CIR: TOP DEAD CENTER TRA: WELD CENTERLINE NOT Zero: LKDN

Scan Parameters and Results

Scan:	Skew:	File ID:	Disk:	X-Start:	X-Stop:	Y-Start:	Y-Stop:	Gain:	Results:	Comments:
<u>Z11</u>	<u>0</u>	<u>2RN1B1Z11</u>	<u>D-01</u>	<u>-5.6"</u>	<u>2.3"</u>	<u>0.0"</u>	<u>83.0"</u>	<u>Log</u>	<u>C,D,H,K</u>	<u>Bi-directional</u>
<u>Z20</u>	<u>180</u>	<u>2RN1B1Z20</u>	<u>D-02</u>	<u>-2.3"</u>	<u>5.7"</u>	<u>0.0"</u>	<u>83.0"</u>	<u>Log</u>	<u>C,D,H,K</u>	<u>Bi-directional</u>
<u>Z30</u>	<u>0</u>	<u>2RN1B1Z30</u>	<u>D-01</u>	<u>0.0"</u>	<u>83.0"</u>	<u>-3.7"</u>	<u>0.0"</u>	<u>Log</u>	<u>C</u>	<u>Uni-directional</u>
<u>Z31</u>	<u>0</u>	<u>2RN1B1Z31</u>	<u>D-02</u>	<u>0.0"</u>	<u>83.0"</u>	<u>0.0"</u>	<u>3.7"</u>	<u>Log</u>	<u>C</u>	<u>Uni-directional</u>
<u>Z40</u>	<u>180</u>	<u>2RN1B1Z40</u>	<u>D-03</u>	<u>0.0"</u>	<u>83.0"</u>	<u>-3.7"</u>	<u>0.0"</u>	<u>Log</u>	<u>C</u>	<u>Bi-directional</u>
<u>Z41</u>	<u>180</u>	<u>2RN1B1Z41</u>	<u>D-04</u>	<u>0.0"</u>	<u>83.0"</u>	<u>0.0"</u>	<u>3.7"</u>	<u>Log</u>	<u>C</u>	<u>Bi-directional</u>

EXAMINATION RESULTS LEGEND

A - NO RECORDABLE INDICATIONS  
E - INSIDE SURFACE  
I - COUNTERBORE

B - NON-GEOMETRIC INDICATIONS  
F - OUTSIDE SURFACE  
J - SHEAR COMPONENT

C - NON-RELEVANT INDICATIONS  
G - WELD DISCONTINUITY  
K - BEAM RE-DIRECT

D - ACOUSTIC INTERFACE  
H - ROOT GEOMETRY

Comments:

Axial scans were limited from a 'L' of 26" to 41.25" with a 'W' of -1.7" to -0.9" and a 'L' of 49" - 86" with a 'W' of -1.5" to 0".  
Upstream circ scans were limited from a 'L' of 11" to 39" and 49.6" to 84".

Richard Jasken

II

4/21/2005

Examiner:

Level: Date:

GE Review:

Level:

Date:

Utility Review:

Date:

ANII Review:

Date:



GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET

(Automated with Micro TomoScan)

Site Pilgrim Nuclear PowerUnit 1Project RF-015Report Number APR-007Calibration Sheet No. APC-001Weld 2R-N1B-1Procedure No. TP04-016 (GE-UT-209)Version R1 (V17) DRR N/AInstrument Zetec / u Tomo  
Manufacturer / ModelSystem Serial No. 18121-09Acquisition Software 2.2Q14 Analysis Software 2.2Q14Pulser/Receiver R/D Tech EQTX 100  
Main Board: Manufacturer / ModelPulser/Receiver R/D Tech EQTX 101  
Piggy Board: Manufacturer / ModelDigitizer: R/D Tech EQTX 099  
Manufacturer / ModelSearch Unit RTD 04-430  
Manufacturer Serial No.2(15x25) mm  
Element Size1.0 MHz 45° / RL  
Freq. (MHz) Angle / Mode1.39° 45° 0.75°  
FD,FS/SA,RA Measured Incident to  
Angle Wedge FrontCable RG-58/RG-58/RG-174  
Type250' / 25' / 3'  
Length2  
No. of Intermediate ConnectorsCalibration Standard PIL-79  
Serial No.SS 2.1"  
Material Nominal Thickness2.1"  
Measured ThicknessThermometer 241576  
Serial No.75 °F  
Temp (°F)Demin Water  
Couplant TypeN/A  
Batch No.

## Calibration

Orientation	<u>Circ</u>	<u>Circ</u>	<u>Circ</u>
Type	<u>ID Notch</u>	<u>ID Notch</u>	<u>ID Notch</u>
Depth	<u>2.10 in.</u>	<u>2.10 in.</u>	<u>2.10 in.</u>
Amplitude / dB	<u>80%</u>	<u>-43.9 dB</u>	<u>-20.7 dB</u>
Sweep	<u>2.95 in.</u>	<u>2.95 in.</u>	<u>2.95 in.</u>
Gain (dB)	<u>34</u>	<u>Log</u>	<u>+25 Log</u>
Screen	<u>Half Path</u>	25 dB Booster	<u>Active</u>

Field Simulator CS Rompas S/N CAL-RHOM-095Reflector Far SDHMax Amplitude/dB -11.30 dBSweep 1.06"Gain (dB) + Log

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	<u>0907</u>	<u>4/12/2005</u>	<u>PIL 79</u>	<u>MW/RJ</u>
Verified	<u>1413</u>	<u>4/21/2005</u>	<u>CAL-RHOM-095</u>	<u>RJ</u>
Verified				
Verified				
Final	<u>0902</u>	<u>4/22/2005</u>	<u>CAL-RHOM-095</u>	<u>RSG</u>

Channel Name 45° RL 04-430 P1/R1

Timebase Start 0.0 in. Range 5.5 in.

Units Half Path

## Digitizer

Synchro Pulse ☒ A Scan Sample Size 8 Bit

Averaging 1 Acquisition Rate 326 Hz

Digitizing Frequency 6.25 MHz Max Recurrence 2000 Hz

## Pulser / Receiver

Configuration Conventional Pitch Catch

Pulser P1 Receiver R1

Voltage 300 V Scale Type LOG

Width (Ns) 500 ns Rectification Unsigned

Smoothing 1 MHz

## Probe

Wave Type Longitudinal Scan offset 0 in.

Velocity 0.2272 in/sec. Index offset 0.00 in.

Wedge Delay 12.229 usec. Angle 45°

Skew 0/180

N1 - 45° RL - Circ scan

Richard Jasken II 4/21/2005

Operator Level Date

Analyst [Signature] Level 4-23-05 Date

Utility Review

ANIII Review

Level Date

Date

Page 2 of 12

Page 132/240



GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET (Automated with Micro TomoScan)

Site Pilgrim Nuclear Power

Unit 1

Project RF-015

Report Number APR-007

Calibration Sheet No. APC-002

Weld 2R-N1B-1

Procedure No. TP04-016 (GE-UT-209)

Version R1 (V17) DRR N/A

Instrument	<u>Zetec / u Tomo</u>	<u>18121-09</u>	<u>2.2Q14</u>	<u>2.2Q14</u>
	Manufacturer / Model	System Serial No.	Acquisition Software	Analysis Software
Pulser/Receiver	<u>R/D Tech EQTX 100</u>	<u>R/D Tech EQTX 101</u>	Digitizer:	<u>R/D Tech EQTX 098</u>
Main Board:	Manufacturer / Model	Manufacturer / Model		Manufacturer / Model
Search Unit	<u>RTD</u>	<u>03-677</u>	<u>2.23"</u>	<u>45°</u>
	Manufacturer	Serial No.	FD,FS/SA,RA	Measured Angle
Cable	<u>RG-58/RG-58/RG-174</u>	<u>250' / 25' / 3'</u>	<u>2</u>	<u>0.95°</u>
	Type	Length	No. of Intermediate Connectors	Incident to Wedge Front
Calibration Standard	<u>PIL-79</u>	<u>SS</u>	<u>2.1"</u>	<u>2.1"</u>
	Serial No.	Material	Nominal Thickness	Measured Thickness
Thermometer	<u>241576</u>	<u>75 °F</u>	<u>Demin Water</u>	<u>N/A</u>
	Serial No.	Couplant	Type	Batch No.

Calibration			
Orientation	<u>Circ</u>	<u>Circ</u>	<u>Circ</u>
Type	<u>ID Notch</u>	<u>ID Notch</u>	<u>ID Notch</u>
Depth	<u>2.10 in.</u>	<u>2.10 in.</u>	<u>2.10 in.</u>
Amplitude / dB	<u>80.3%</u>	<u>-36.4 dB</u>	<u>-12.2 dB</u>
Sweep	<u>2.91 in.</u>	<u>2.91 in.</u>	<u>2.91 in.</u>
Gain (dB)	<u>27.0</u>	<u>Log</u>	<u>+25 Log</u>
Screen	<u>Half Path</u>	25 dB Booster	<u>Active</u>

Field Simulator CS Rompage S/N CAL-RHOM-095

Reflector Far SDH

Max Amplitude/dB -15.4 dB

Sweep 1.06°

Gain (dB) + Log

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	1315	4/11/2005	PIL 79	MW/RJ
Verified	0550	4/21/2005	CAL-RHOM-095	RSG
Verified				
Verified				
Final	1329	4/21/2005	CAL-RHOM-095	RSG

Channel Name 45° RL 03-677 P1/R1

General		
Timebase	Start <u>0.0 in.</u>	Range <u>5.5 in.</u>
Units	<u>Half Path</u>	

Digitizer			
Synchro	<u>Pulse</u>	<input checked="" type="checkbox"/> A Scan	Sample Size <u>8 Bit</u>
Averaging	<u>1</u>	Acquisition Rate	<u>326 Hz</u>
Digitizing Frequency	<u>6.25 MHz</u>	Max Recurrence	<u>2000 Hz</u>

Pulser / Receiver			
Configuration	<u>Conventional Pitch Catch</u>		
Pulser	<u>P1</u>	Receiver	<u>R1</u>
Voltage	<u>300 V</u>	Scale Type	<u>LOG</u>
Width (Ns)	<u>500 ns</u>	Rectification	<u>Unsigned</u>
		Smoothing	<u>1 MHz</u>

Probe			
Wave Type	<u>Longitudinal</u>	Scan offset	<u>0 in.</u>
Velocity	<u>0.2272 in./sec.</u>	Index offset	<u>0.00 in.</u>
Wedge Delay	<u>12.017 usec.</u>	Angle	<u>45°</u>
		Skew	<u>0/180</u>

N1 - 45° RL - Ax scan

Richard Jasken

Operator

Analyst

II 4/21/2005

Level Date

II 4-23-05  
Level Date

Utility Review

ANIII Review

III 4/26/05

Level Date

III 4/26/05  
Level Date

Page 8 of 12

Page 133/240



GE Energy, Nuclear

ULTRASONIC CALIBRATION DATA SHEET  
(Automated with Micro TomoScan)Site Pilgrim Nuclear PowerUnit 1Project RF-015Report Number APR-007Calibration Sheet No. APC-003Weld 2R-N1B-1Procedure No. TP04-016 (GE-UT-209)Version R1 (V17) DRP N/A

Instrument

Zetec /  $\mu$  Tomo

Manufacturer / Model

18121-09

System Serial No.

2.2Q14

Acquisition Software

2.2Q14

Analysis Software

Pulser/Receiver  
Main Board:R/D Tech EQTX 100

Manufacturer / Model

Pulser/Receiver  
Piggy Board:R/D Tech EQTX 101

Manufacturer / Model

Digitizer:

R/D Tech EQTX 099

Manufacturer / Model

Search Unit

RTD

Manufacturer

03-340

Serial No.

Ell(24x17) mm

Element Size

1.5 MHz

Freq. (MHz)

45°/S

Angle / Mode

N/A

FD,FS/SA,RA

45°

Measured Angle

0.52°

Incident to Wedge Front

Cable

RG-58/RG-58/RG-174

Type

250' / 25' / 3'

Length

No. of Intermediate Connectors  
2

Calibration Standard

PIL-79

Serial No.

SS

Material

2.1"

Nominal Thickness

2.1"

Measured Thickness

Thermometer

241576

Serial No.

75 °F

Temp (°F)

Couplant

Demin Water

Type

N/A

Batch No.

## Calibration

Orientation

Circ

Type

ID Notch

Depth

2.10 in.

Amplitude / dB

-8.2 dB

Sweep

2.97 in.

Gain (dB)

Log

Screen

Half Path

25 dB Booster

Inactive

Channel Name

45° Shear 03-340 P2

## General

Timebase

Start

0.0 in.

Range

5.5 in.

Units

Half Path

## Digitizer

Synchro Pulse☒ A Scan

Sample Size

8 Bit

Averaging

1

Acquisition Rate

326 Hz

Digitizing Frequency

12.5 MHz

Max Recurrence

2000 Hz

## Pulser / Receiver

Configuration

Conventional Pulse Echo

Pulser

P2

Receiver

N/A

Voltage

300 V

Scale Type

LOG

Width (Ns)

333 ns

Rectification

Unsigned

Smoothing

2 MHz

## Probe

Wave Type

Transverse

Scan offset

0 in.

Velocity

0.1240 in./sec.

Index offset

-2.50 in.

Wedge Delay

11.951 usec.

Angle

45°

Skew

0/180

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	1250	4/11/2005	PIL 79	RJ/MW
Verified	0555	4/21/2005	CAL-RHOM-095	RSG
Verified	1410	4/21/2005	CAL-RHOM-095	RJ
Verified	1332	4/21/2005	CAL-RHOM-095	RSG
Final	0905	4/22/2005	CAL-RHOM-095	RSG

Richard Jasken

II

4/21/2005

Operator

Level

Date

Analyst

Level

Date

Utility Review

ANIII Review

Level

Date

Date

Page 9 of 12

Page 134/240





GE Energy, Nuclear

ULTRASONIC CALIBRATION DATA SHEET  
(Automated with Micro TomoScan)Site Pilgrim Nuclear PowerUnit 1Project RF-015Report Number APR-007Calibration Sheet No. APC-004Weld 2R-N1B-1Procedure No. TP04-016 (GE-UT-209)Version R1 (V17) DRR N/AInstrument Zetec / u Tomo  
Manufacturer / Model18121-09  
System Serial No.2.2Q14 • 2.2Q14  
Acquisition Software Analysis SoftwarePulser/Receiver R/D Tech EQTX 100  
Main Board; Manufacturer / ModelPulser/Receiver R/D Tech EQTX 101  
Piggy Board; Manufacturer / ModelDigitizer: R/D Tech EQTX 098  
Manufacturer / ModelSearch Unit RTD 04-345  
Manufacturer Serial No.2(20x34) mm  
Element Size1.0 MHz 60° / RL  
Freq. (MHz) Angle / Mode1.38"  
FD,FS/SA,RA60° 1.0"  
Measured Incident to  
Angle Wedge FrontCable RG-58/RG-58/RG-174  
Type250' / 25' / 3'  
Length2  
No. of Intermediate ConnectorsCalibration Standard CAL-DPTH-063  
Serial No.SS  
Material1.4"  
Nominal Thickness1.4"  
Measured ThicknessThermometer 241576  
Serial No.75 °F  
Temp (°F)

Couplant

Demin Water  
TypeN/A  
Batch No.

## Calibration

Orientation	<u>Circ</u>	<u>Circ</u>	<u>Circ</u>
Type	<u>SDH</u>	<u>SDH</u>	<u>SDH</u>
Depth	<u>1.40 in.</u>	<u>1.40 in.</u>	<u>1.40 in.</u>
Amplitude / dB	<u>80.8%</u>	<u>-30.7 dB</u>	<u>-6.6 dB</u>
Sweep	<u>2.78 in.</u>	<u>2.78 in.</u>	<u>2.78 in.</u>
Gain (dB)	<u>21.0</u>	<u>Log</u>	<u>+25 Log</u>
Screen	<u>Half Path</u>	25 dB Booster	<u>Active</u>

Channel Name 60° RL 04-345 P3 / R3

## General

Timebase	Start	<u>0.0 in.</u>	Range	<u>8.0 in.</u>
Units	<u>Half Path</u>			

## Digitizer

Synchro	<u>Pulse</u>	<input checked="" type="checkbox"/> A Scan	Sample Size	<u>8 Bit</u>
Averaging	<u>1</u>		Acquisition Rate	<u>326 Hz</u>
Digitizing Frequency	<u>6.25 MHz</u>		Max Recurrence	<u>2000 Hz</u>

## Pulser / Receiver

Configuration	<u>Conventional Pitch Catch</u>		
Pulser	<u>P3</u>	Receiver	<u>R3</u>
Voltage	<u>300 V</u>	Scale Type	<u>LOG</u>
Width (Ns)	<u>500 ns</u>	Rectification	<u>Unsigned</u>
		Smoothing	<u>1 MHz</u>

## Probe

Wave Type	<u>Longitudinal</u>	Scan offset	<u>0 in.</u>
Velocity	<u>0.2272 in./sec.</u>	Index offset	<u>-5.00 in.</u>
Wedge Delay	<u>13.593 usec.</u>	Angle	<u>60°</u>
		Skew	<u>0/180</u>

N1 - 60° RL - Ax Scan

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	<u>1350</u>	<u>4/11/2005</u>	<u>CAL-DPTH-063</u>	<u>RJM/W</u>
Verified	<u>0600</u>	<u>4/21/2005</u>	<u>CAL-RHOM-095</u>	<u>RSG</u>
Verified				
Verified				
Final	<u>1335</u>	<u>4/21/2005</u>	<u>CAL-RHOM-095</u>	<u>RSG</u>

Richard Jasken

II

4/21/2005

Operator

Level

Date

Analyst

Level

4-23-05  
Date

Utility Review

ANIII Review

Level

Date

Date

Page 10 of 12

Page 135/240



GE Energy, Nuclear

ULTRASONIC CALIBRATION DATA SHEET  
(Automated with Micro TomoScan)Site Pilgrim Nuclear PowerUnit 1Project RF-015Report Number APR-007Calibration Sheet No. APC-006Weld 2R-N1B-1Procedure No. TP04-016 (GE-UT-209)Version R1 (V17) DRR N/A

Instrument	<u>Zetec / uTomo</u>	<u>18121-09</u>	<u>2.2Q14</u>	<u>2.2Q14</u>
Manufacturer / Model		System Serial No.	Acquisition Software	Analysis Software
Pulser/Receiver	<u>R/D Tech EQTX 100</u>	<u>R/D Tech EQTX 101</u>	Digitizer:	<u>R/D Tech EQTX 090</u>
Main Board:	Manufacturer / Model	Piggy Board:	Manufacturer / Model	
Search Unit	<u>RTD</u>	<u>04-431</u>	<u>2(15x25) mm</u>	<u>1.0 MHz</u>
Manufacturer	Serial No.	Element Size	Freq. (MHz)	Angle / Mode
Cable	<u>RG-58/RG-58/RG-174</u>	<u>250' / 25' / 3'</u>	<u>0.89"</u>	<u>60"</u>
Type	Length	No. of Intermediate Connectors	FD,FS/SA,RA	Measured Angle
Calibration Standard	<u>CAL-DPTH-063</u>	<u>SS</u>	<u>0.9"</u>	<u>0.9"</u>
Serial No.		Material	Nominal Thickness	Measured Thickness
Thermometer	<u>241576</u>	<u>75°F</u>	<u>Demin Water</u>	<u>N/A</u>
Serial No.	Temp (°F)	Couplant	Type	Etch No.

## Calibration

Orientation	<u>Circ</u>	<u>Circ</u>	<u>Circ</u>
Type	<u>SDH</u>	<u>SDH</u>	<u>SDH</u>
Depth	<u>0.90 in.</u>	<u>0.90 in.</u>	<u>0.90 in.</u>
Amplitude / dB	<u>80.4%</u>	<u>-55.2 dB</u>	<u>-31.4 dB</u>
Sweep	<u>1.87 in.</u>	<u>1.87 in.</u>	<u>1.87 in.</u>
Gain (dB)	<u>45.5</u>	<u>Log</u>	<u>+25 Log</u>
Screen	<u>Half Path</u>	25 dB Booster	<u>Active</u>

Channel Name 60° RL 04-431 P3 / R3

## General

Timebase	Start	<u>0.0 in.</u>	Range	<u>8.0 in.</u>
Units	<u>Half Path</u>			

## Digitizer

Synchro	<u>Pulse</u>	<input checked="" type="checkbox"/> A Scan	Sample Size	<u>8 Bk</u>
Averaging	<u>1</u>	Acquisition Rate	<u>326 Hz</u>	
Digitizing Frequency	<u>6.25 MHz</u>	Max Recurrence	<u>2000 Hz</u>	

## Pulser / Receiver

Configuration	<u>Conventional Pitch Catch</u>		
Pulser	<u>P3</u>	Receiver	<u>R3</u>
Voltage	<u>300 V</u>	Scale Type	<u>LOG</u>
Width (Ns)	<u>500 ns</u>	Rectification	<u>Unsigned</u>
		Smoothing	<u>1 MHz</u>

## Probe

Wave Type	<u>Longitudinal</u>	Scan offset	<u>-5 in.</u>
Velocity	<u>0.2272 in./sec.</u>	Index offset	<u>0.00 in.</u>
Wedge Delay	<u>12.955 usec.</u>	Angle	<u>60°</u>
		Skew	<u>0/180</u>

N1 - 60° RL - Circ Scan

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	0925	4/12/2005	CAL-DPTH-063	MW/RJ
Verified	1411	4/21/2005	CAL-RHOM-095	RJ
Verified				
Verified				
Final	0909	4/22/2005	CAL-RHOM-095	RSG

Richard Jasken

II 4/21/2005

Operator

Level Date

Analyst

Level Date

Utility Review

ANIII Review

Level

Date

Date

Page 11 of 12

Page 136/240



GE Energy Nuclear

## Micro-Tomo (Smart 2000) - Auto Piping Weld Examination Checklist

Pilgrim Unit 1, 2005  
2R-NIB-1

<b>2RN1B1Z10 LKDN</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	<u>NOTES:</u>
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RJ	MJK				Lift off due to OD contour
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<b>2RN1B1Z20 LKUP</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	<u>NOTES:</u>
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RJ	MJK				Lift off due to OD contour
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<b>2RN1B1Z30 LKCW</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	<u>NOTES:</u>
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW	MJK				Lift off due to OD contour on upstream side
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<b>2RN1B1Z40 LKCCW</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	<u>NOTES:</u>
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW	MJK				Lift off due to OD contour on upstream side
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

**Notes:** Circ scans separated to upstream and downstream sides of weld centerline.

Page 137/240

*Sam DeWitt 4/2/05*



GE ENERGY, NUCLEAR

## EXAMINATION SUMMARY SHEET

Report No.:  
APR-009Site: Pilgrim Nuclear Power Station Component ID:2R-N2E-1Outage: RF-015SAFE END TO NOZZLE

System

RPV

ASME Cat.:

B-F

ASME Item

B5.10

Aug Req

IGSCC D

Exams Performed	Data Sheet	Cal Sheet	Procedure	Calibration Block	Examination Personne!	Cert Level	Date
45° / S	N/A	APC-07*	TP04-016 (GE-UT-209) R1 (V17)	PIL-7E	Robert Scott Getz	I	4/22/2005
45° / RL	N/A	APC-072	TP04-016 (GE-UT-209) R1 (V17)	PIL-78	Robert Scott Getz	II	4/22/2005
45° / RL	N/A	APC-073	TP04-016 (GE-UT-209) R1 (V17)	PIL-78	Robert Scott Getz	II	4/22/2005
60° / RL	N/A	APC-074	TP04-016 (GE-UT-209) R1 (V17)	CAL-DPTH-063	Robert Scott Getz	II	4/22/2005
60° / RL	N/A	APC-075	TP04-016 (GE-UT-209) R1 (V17)	CAL-DPTH-063	Robert Scott Getz	II	4/22/2005
N/A	APD-005	N/A	TP04-016 (GE-UT-209) R1 (V17)	N/A	Robert Scott Getz	II	4/22/2005

## Examination Results:

During the automated ultrasonic examination of the above referenced dissimilar metal weld, no indications associated with IGSCC or any reportable indications were recorded with the "SMART 2000" system utilizing a 45° shear wave, 45° and 60° refracted longitudinal wave search units.

The 45° shear wave examinations were performed from both the upstream and downstream sides of the weld. Root geometry, beam redirect and non-relevant indications were recorded.

The 45° RL wave examinations were performed from both the upstream and downstream sides of the weld. Root geometry, acoustic interface, inside surface geometry and non-relevant indications were recorded.

The 60° RL wave examinations were performed from both the upstream and downstream sides of the weld. Acoustic interface and non-relevant indications were recorded.

The outside surface weld crown did not meet procedure requirements from 11° to 23°. 79.1% coverage was obtained per the procedure and 81.2% coverage of the code required examination volume.

Previous automated electronic data and automated reports and drawings were reviewed prior to this summary.

Examination results were compared to data report 95-E-403 from 1995 outage with ☒ No Change

These examinations were performed under Work Order: 031166227 ☐ Change

This Summary and the following data sheets have been reviewed and accepted by the following personnel:

Prepared By: [Signature] Level: III Date: 4-25-05 Utility Review: [Signature] Date: 4/28/05  
ANII Review: [Signature] Date: 4/29/05

RWP: 0062

Dose: 1850 mr.

Page 1 of 13

Page 138/240



GE ENERGY, NUCLEAR

# Wall Thickness Profile Sheet

Site: Pilarim Nuclear Power Station Unit: 1

Report No.: APR-009

Project: RF-015

System: RPV

Component ID Number: 2R-N2E-1

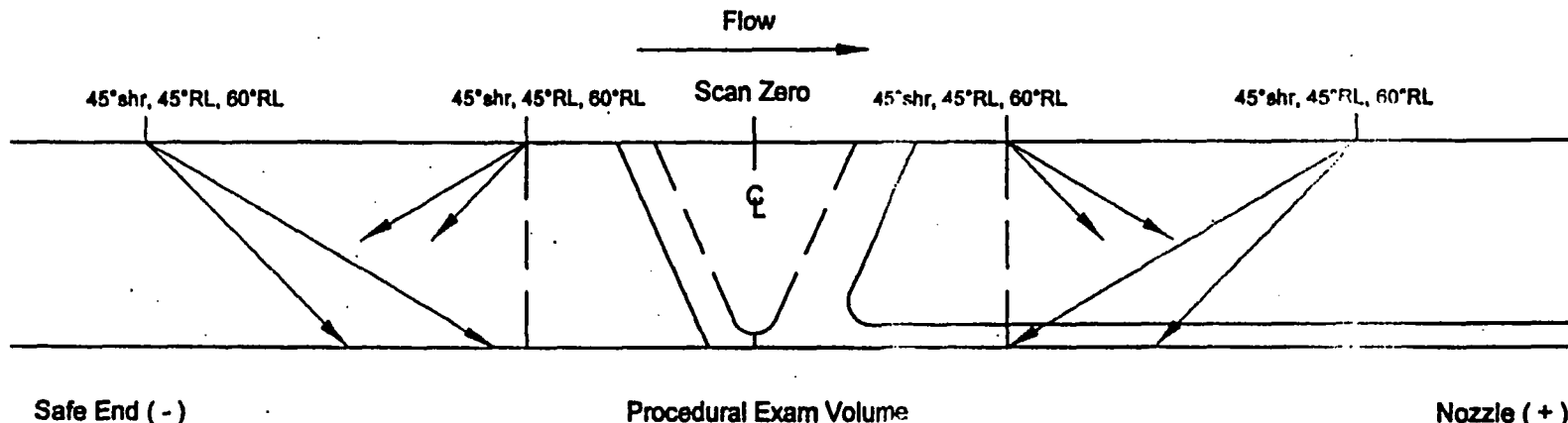
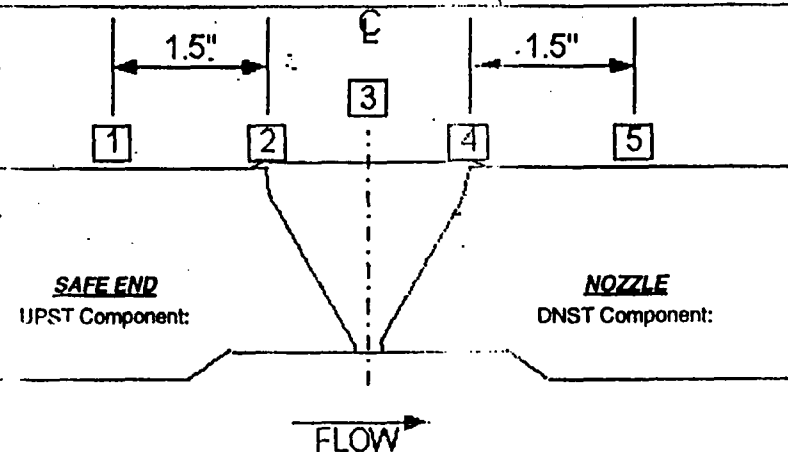
Position	0°	90°	180°	270°
1	1.09"	N/A	N/A	N/A
2	1.20"	N/A	N/A	N/A
3	1.21"	N/A	N/A	N/A
4	1.08"	N/A	N/A	N/A
5	1.09"	N/A	N/A	N/A

Crown Height: FLUSH

Crown Width: 1.15"

Nominal Diameter: 12.0"

Weld Length: 42.0"



Thickness obtained from previous data  
Weld preps obtained from drawings; 137C8066 and M1A73 sheet 2  
Bottom of nozzle bore to Inc/CS interface = 4.1"  
Bottom of SE taper to Inc/CS interface = 7.5"

CB

Charles Barrett

II 4/25/2005

Initials: Examiner:

Level: Date:

GE Reviewed By:

Level:

Date:

Utility Review:

Date:

ANII Review:

Date:

8091 139/240



GE ENERGY, NUCLEAR

# Wall Thickness Profile Sheet

Site: Pilgrim Nuclear Power Station Unit: 1

Report No.: APR-009

Project: RF-015

APR-009

System: RPV

Position	0°	90°	180°	270°
1	1.09"	N/A	N/A	N/A
2	1.20"	N/A	N/A	N/A
3	1.21"	N/A	N/A	N/A
4	1.09"	N/A	N/A	N/A
5	1.09"	N/A	N/A	N/A

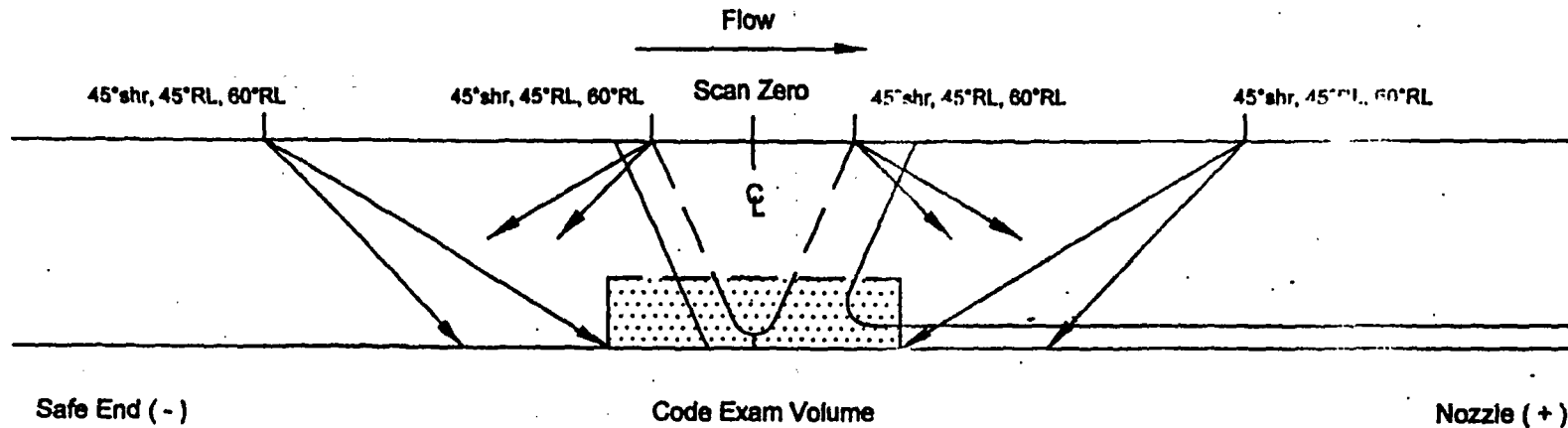
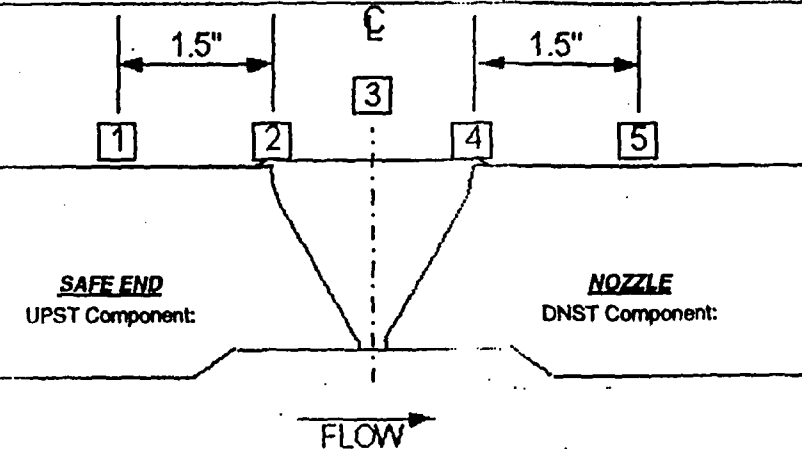
Component ID Number: 2R-N2E-1

Crown Height: FLUSH

Crown Width: 1.15"

Nominal Diameter: 12.0"

Weld Length: 42.0"



Thickness obtained from previous data  
Weld preps obtained from drawings; 137C8066 and M1A73 sheet 2  
Bottom of nozzle bore to Inc/CS interface = 4.1"  
Bottom of SE taper to Inc/CS interface = 7.5"

CB

Charles Barrett

II 4/25/2005

Initials: Examiner:

Level: Date:

M. J. [Signature]

GE Reviewed By:

Level:

Date:

[Signature]

Utility Review:

Date:

[Signature]

ANII Review:

Date:

8092 140/24-0



GE ENERGY, NUCLEAR

# Indication / Coverage Plot Sheet

Site: Pilgrim Nuclear Power Station Unit: 1

Project: RF-015

Report Number.: APR-009

System: RPV

Component ID Number: 2R-N2E-1

Configuration: SAFE END

NOZZLE

0°

INC/CS

90°

INC/CS

180°

INC/CS

270°

INC/CS

Page 141/240

CB

Charles Barrett

II

4/25/2005

Initials: Examiner:

Level: Date:

[Signature]

III

4-25-05

GE Reviewed By:

Level: Date:

[Signature]

L-III

4/26/05

Utility Reviewed By:

Date:

[Signature]

ANII Reviewed By:

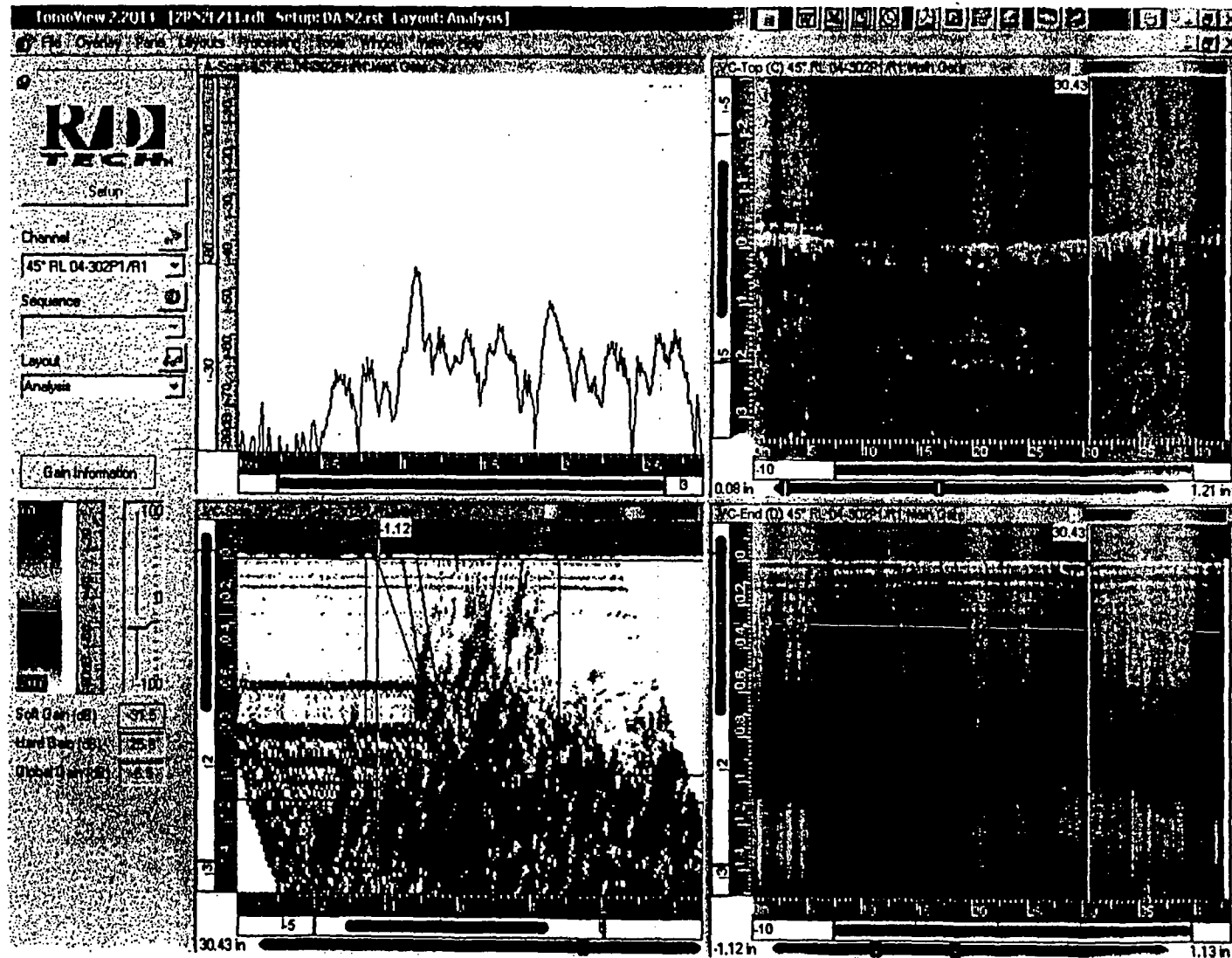
4/27/05

Date:



N2E Safe End to Nozzle

45°RL LKDN Root Geometry



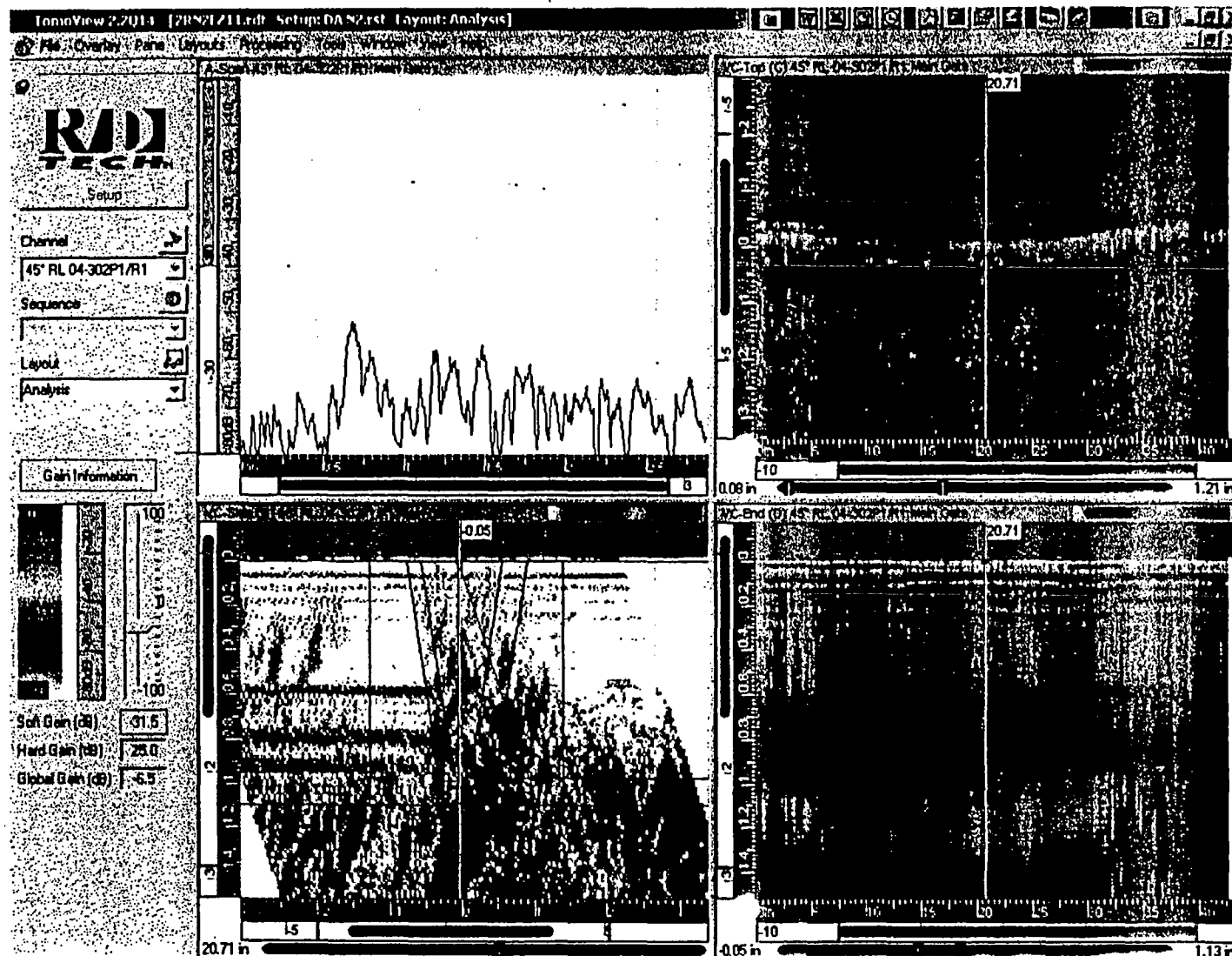
Page 142/240





N2E Safe End to Nozzle

45°RL LKDN Acoustic Interface



Page 143/240



GE Nuclear Energy

Ultrasonic Data / Scan Parameter Sheet  
(Automated with Micro TomoScan)

Site: Pilarim Nuclear Power Station

Procedure: TP04-016 (GE-UT-209)

System: RPV

Report No.: APR-009

Unit: 1

Version / Revision: R1 (V17)

Weld No.: 2R-N2E-1

Data Sheet No.: APD-005

Project No.: RF-015

DRR: N/A

Configuration: SAFE END TO NOZZLE

Calibration Sheet No.

Scanner Information

Weld Reference, (GE-ADM-1005): Lo: TDC Wo: Weld Centerline Motor Steps: Cir: 2088 Tra: 2500  
Examination Surface: OD Exam Surface Temperature: 92 °F Thermometer S/N: 241878 Exam Start: 4/22/2005 3:25:00 PM  
Exam End: 4/23/2005 7:20:00 AM  
Nominal Pipe Size 12" Nominal Thickness: 1.1" Weld Width: 1.12" Weld Length: 42"  
Scanner: NOVA Track Diameter: 16" Arm Length: 18" Track Location: 14" FROM INTERFACE UPSTREAM  
X Positive Scan Direction: CW Y Positive Scan Direction: DOWNSTREAM  
Resolution: ≤ 0.036" Index Ax / Circ: ≤ 0.18" ≤ 0.05" Axial Scan Speed: ≤ 1.98 In./Sec. Circ Scan Speed: ≤ 0.98 In./Sec.  
Scanner Zero Positions: CIR: TOP DEAD CENTER TRA: WELD CENTERLINE ROT Zero: LOOKING DOWNSTREAM

Scan Parameters and Results

Scan:	Skew:	File ID:	Disk:	X-Start:	X-Stop:	Y-Start:	Y-Stop:	Gain:	Results:	Comments:
<u>Z11</u>	<u>0</u>	<u>2RN2EZ11</u>	<u>D-09</u>	<u>-4.0"</u>	<u>2.1"</u>	<u>0.0"</u>	<u>43.0"</u>	<u>Log</u>	<u>C.D.H</u>	<u>Uni-directional</u>
<u>Z20</u>	<u>180</u>	<u>2RN2EZ20</u>	<u>D-09</u>	<u>-2.0"</u>	<u>4.1"</u>	<u>0.0"</u>	<u>43.0"</u>	<u>Log</u>	<u>K.C</u>	<u>Bi-directional</u>
<u>Z30</u>	<u>0</u>	<u>2RN2EZ30</u>	<u>D-09</u>	<u>0.0"</u>	<u>43.0"</u>	<u>-2.7"</u>	<u>2.9"</u>	<u>Log</u>	<u>C</u>	<u>Uni-directional</u>
<u>Z40</u>	<u>180</u>	<u>2RN2EZ40</u>	<u>D-09</u>	<u>0.0"</u>	<u>43.0"</u>	<u>-2.7"</u>	<u>2.9"</u>	<u>Log</u>	<u>C.E</u>	<u>Uni-directional</u>

EXAMINATION RESULTS LEGEND

A - NO RECORDABLE INDICATIONS  
E - INSIDE SURFACE  
I - COUNTERBORE

B - NON-GEOMETRIC INDICATIONS  
F - OUTSIDE SURFACE  
J - SHEAR COMPONENT

C - NON-RELEVANT INDICATIONS  
G - WELD DISCONTINUITY  
K - BEAM RE-DIRECT

D - ACOUSTIC INTERFACE  
H - ROOT GEOMETRY

Comments:

High weld crown from a 'L' of 11" - 23" does not meet procedure requirements.  
Load A01 files for Z11 and Z20 scans.

Robert Scott Getz

II

4/22/2005

Examiner:

Level: Date:

GE Review

Level:

4-25-05

Date:

Utility Review:

4/28/05

Date:

ANII Review:

Date:

Page 2 of 13

Page 144/240



GE Energy, Nuclear

ULTRASONIC CALIBRATION DATA SHEET  
(Automated with Micro TomoScan)

Site Pilgrim Nuclear Power Unit 1 Project RF-015 Report Number APR-009  
Weld 2R-N2E-1 Calibration Sheet No. APC-071

Procedure No. TP04-016 (GE-UT-209) Version R1 (V17) DRF N/A

Instrument Zetec / uTomo 18121-09 2.2Q14 2.2Q14  
Manufacturer / Model System Serial No. Acquisition Software Analysis Software  
Pulser/Receiver R/D Tech EQTX 100 Pulser/Receiver R/D Tech EQTX 101 Digitizer: R/D Tech EQTX 098  
Main Board: Manufacturer / Model Piggy Board: Manufacturer / Model Manufacturer / Model  
Search Unit RTD 03-341 Ell(24x17) mm 1.5 MHz 45° / S N/A 45° 0.52"  
Manufacturer Serial No. Element Size Freq. (MHz) Angle / Mode FD,FS/SA,RA Measured Angle Incident to Wedge Front  
Cable RG-58/RG-58/RG-174 250' / 25' / 3' 2  
Type Length No. of Intermediate Connectors  
Calibration Standard PIL-78 SS 1.3" 1.3"  
Serial No. Material Nominal Thickness Measured Thickness  
Thermometer 241878 75 °F Demin Water N/A  
Serial No. Temp (°F) Couplant Type Batch No.

**Calibration**  
Orientation Circ Circ  
Type ID Notch ID Notch  
Depth 1.30 in. 1.30 in.  
Amplitude / dB 85.4% -9.4 dB  
Sweep 1.91 in. 1.91 in.  
Gain (dB) 1.0 Log  
Screen Half Path 25 dB Booster Inactive

Field Simulator CS Rompage S/N CAL-RHOM-095

Reflector Far SDH  
Max Amplitude/dB -19.5 dB  
Sweep 1.01"  
Gain (dB) Log

**Calibration Verification**

	Time	Date	Block(s)	Operator
Initial	0847	4/11/2005	PIL 78	RJ
Verified	1528	4/22/2005	CAL-RHOM-095	SG
Verified	2224	4/22/2005	CAL-RHOM-095	MW
Verified	1030	4/23/2005	CAL-RHOM-095	RJ
Final	0120	4/24/2005	CAL-RHOM-095	PK

Channel Name 03-341 45° Shear P2

**General**  
Timebase Start 0.0 in. Range 4.0 in.  
Units Half Path

**Digitizer**  
Synchro Pulse ☒ A Scan Sample Size 8 Bit  
Averaging 1 Acquisition Rate 301 Hz  
Digitizing Frequency 125 MHz Max Recurrence 2000 Hz

**Pulser / Receiver**  
Configuration Conventional Pulse Echo  
Pulser P2 Receiver N/A  
Voltage 300 V Scale Type LOG  
Width (Ns) 333 ns Rectification Unsigned  
Smoothing 2 MHz

**Probe**  
Wave Type Transverse Scan offset 0.00 in.  
Velocity 0.1240 in./sec. Index offset 0.00 in.  
Wedge Delay 11.778 usec. Angle 45°  
Skew 0/180

N2 - 45° Shear - Ax/Circ Scan  
Ax scan offset: 0 Index offset: -2.60  
Circ scan offset: -2.60 Index offset: 0  
Calibration verification at 1703, 4/23/04, Block CAL-RHOM-095

Robert Scott Getz II 4/22/2005  
Operator Level Date  
Analyst TL 4-25-05  
Level Date

Utility Review  
ANIII Review

4/28/05  
Level Date  
4/28/05  
Date

Page 8 of 13

Page 145/240



GE Energy, Nuclear

ULTRASONIC CALIBRATION DATA SHEET  
(Automated with Micro TomoScan)

Site Pilgrim Nuclear Power

Unit 1

Project RF-015

Report Number

APR-009

Calibration Sheet No.

APC-072

Weld 2R-N2E-1

Procedure No. TP04-016 (GE-UT-209)

Version R1 (V17)

DRF

N/A

Instrument

Zetec / u Tomo

Manufacturer / Model

18121-09

System Serial No.

2.2Q14

Acquisition Software

2.2Q14

Analysis Software

Pulser/Receiver  
Main Board:

R/D Tech EQTX 100

Manufacturer / Model

Pulser/Receiver  
Piggy Board:

R/D Tech EQTX 101

Manufacturer / Model

Digitizer:

R/D Tech EQTX 098

Manufacturer / Model

Search Unit

RTD

04-302

Manufacturer

Serial No.

2(10x16) mm

Element Size

2.0 MHz

Freq. (MHz)

45° / RL

Angle / Mode

1.0"

FD,FS/SA,RA

45°

Measured Angle

0.55"

Incident to Wedge Front

Cable

RG-58/RG-58/RG-174

Type

250' / 25' / 3'

Length

2

No. of Intermediate Connectors

Calibration Standard

PIL-78

Serial No.

SS/NC

Material

1.3"

Nominal Thickness

1.3"

Measured Thickness

Thermometer

241878

Serial No.

75°F

Temp (°F)

Couplant

Demin Water

Type

N/A

Batch No.

Calibration

Orientation

Circ

Circ

Circ

Type

ID Notch

ID Notch

ID Notch

Depth

1.30 in.

1.30 in.

1.30 in.

Amplitude / dB

82.4%

-32.0 dB

-7.2 dB

Sweep

1.85 in.

1.85 in.

1.85 in.

Gain (dB)

23.0

Log

+25 Log

Screen

Half Path

25 dB Booster

Active

Channel Name

45° RL 04-302 P1/R1

General

Timebase

Start

0.0 in.

Range

4.0 in.

Units

Half Path

Digitizer

Synchro

Pulse

☒ A Scan

Sample Size

8 Bit

Averaging

1

Acquisition Rate

301 Hz

Digitizing Frequency

12.5 MHz

Max Recurrence

2000 Hz

Pulser / Receiver

Configuration

Conventional Pitch Catch

Pulser

P1

Receiver

R1

Voltage

300 V

Scale Type

LOG

Width (Ns)

250 ns

Rectification

Unsigned

Smoothing

2 MHz

Probe

Wave Type

Longitudinal

Scan offset

0.00 in.

Velocity

0.2272 in./sec.

Index offset

0.00 in.

Wedge Delay

9.675 usec.

Angle

45°

Skew

0/180

N2 - 45° RL - Ax Scan

Calibration Verification

	Time	Date	Block(s)	Operator
Initial	0900	4/11/2005	PIL 78	RJ
Verified	1526	4/22/2005	CAL-RHOM-095	SG
Verified				
Verified				
Final	2223	4/22/2005	CAL-RHOM-095	MW

Robert Scott Getz

II

4/22/2005

Operator

Level

Date

Analyst

Level

Date

Utility Review

Level

Date

ANIII Review

Date

Page 9 of 13

Page 46/240



GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET (Automated with Micro TomoScan)

Site Pilgrim Nuclear Power Unit 1 Project RF-015 Report Number APR-009  
Weld 2R-N2E-1 Calibration Sheet No. APC-073

Procedure No. TP04-016 (GE-UT-209) Version R1 (V17) DRR N/A

Instrument Zetec / uTomo System Serial No. 18121-09 Acquisition Software 2.2014 Analysis Software 2.2014  
Manufacturer / Model  
Pulser/Receiver R/D Tech EQTX 100 Pulser/Receiver R/D Tech EQTX 101 Digitizer: R/D Tech EQTX 098  
Main Board: Manufacturer / Model Piggy Board: Manufacturer / Model  
Search Unit RTD 04-310 2(10x18) mm 1.0 MHz 45° / RL 0.84" 45° 0.55"  
Manufacturer Serial No. Element Size Freq. (MHz) Angle / Mode FD,FS/SA,RA Measured Incident to  
Cable RG-58/RG-58/RG-174 250' / 25' / 3' 2  
Type Length No. of Intermediate Connectors  
Calibration Standard PIL-78 SS/INC 1.3" 1.3"  
Serial No. Material Nominal Thickness Measured Thickness  
Thermometer 241878 75 °F Demin Water N/A  
Serial No. Temp. (°F) Couplant Type Batch No.

**Calibration**  
Orientation Circ Circ Circ  
Type ID Notch ID Notch ID Notch  
Depth 1.30 in. 1.30 in. 1.30 in.  
Amplitude / dB 83.9% -46.4 dB -23.5 dB  
Sweep 1.85 in. 1.85 in. 1.85 in.  
Gain (dB) 37 Log +25 Log  
Screen Half Path 25 dB Booster Active

Field Simulator CS Rompas S/N CAL-RHOM-095

Reflector Far SDH  
Max Amplitude/dB -17.3 dB  
Sweep 1.0"  
Gain (dB) + Log

**Calibration Verification**

	Time	Date	Block(s)	Operator
Initial	0708	4/23/2005	PIL 78	RJ
Verified	1026	4/23/2005	CAL-RHOM-095	RJ
Verified	1700	4/23/2005	CAL-RHOM-095	SG
Verified				
Final	0120	4/24/2005	CAL-RHOM-095	PK

Channel Name 45° RL 04-310 P1/R1  
**General**  
Timebase Start 0.0 in. Range 4.0 in.  
Units Half Path  
**Digitizer**  
Synchro Pulse ☒ A Scan Sample Size 8 Bit  
Averaging 1 Acquisition Rate 301 Hz  
Digitizing Frequency 6.25 Mhz Max Recurrence 2000 Hz  
**Pulser / Receiver**  
Configuration Conventional Pitch Catch  
Pulser P1 Receiver R1  
Voltage 300 V Scale Type LOG  
Width (Ns) 500 ns Rectification Unsigned  
Smoothing 1 Mhz  
**Probe**  
Wave Type Longitudinal Scan offset 0.00 in.  
Velocity 0.2272 in./sec. Index offset 0.00 in.  
Wedge Delay 12.318 usec. Angle 45°  
Skew 0/180

N2 - 45° RL - Circ Scan

Robert Scott Getz II 4/22/2005  
Operator Level Date  
[Signature] III 4-25-05  
Analyst Level Date

Utility Review

ANIII Review

Level

Date

Date

Page 10 of 13

Page 147/240



GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET (Automated with Micro TomoScan)

Site Pilgrim Nuclear Power

Unit 1

Project RF-015

Report Number APR-009

Calibration Sheet No. APC-074

Weld 2R-N2E-1

Procedure No. TP04-016 (GE-UT-209)

Version R1 (V17)

DRF

N/A

Instrument Zetec / uTomo  
Manufacturer / Model

18121-09  
System Serial No.

2.2014  
Acquisition Software

2.2014  
Analysis Software

Pulser/Receiver R/D Tech EQTX 100  
Main Board: Manufacturer / Model

Pulser/Receiver R/D Tech EQTX 101  
Piggy Board: Manufacturer / Model

Digitizer: R/D Tech EQTX 098  
Manufacturer / Model

Search Unit RTD 04-305  
Manufacturer Serial No.

2(10x18) mm  
Element Size

2.0 MHz  
Freq. (MHz)

60° / RL  
Angle / Mode

0.77"  
FD,FS/SA,RA

61°  
Measured Angle

0.52"  
Incident to Wedge Front

Cable RG-58/RG-58/RG-174  
Type

250' / 25' / 3'  
Length

2  
No. of Intermediate Connectors

Calibration Standard CAL-DPTH-063  
Serial No.

SS  
Material

0.8"  
Nominal Thickness

0.8"  
Measured Thickness

Thermometer 241878  
Serial No.

75 °F  
Temp (°F)

Couplant

Demin Water  
Type

N/A  
Batch No.

## Calibration

Orientation	<u>Circ</u>	<u>Circ</u>	<u>Circ</u>
Type	<u>SDH</u>	<u>SDH</u>	<u>SDH</u>
Depth	<u>0.80 in.</u>	<u>0.80 in.</u>	<u>0.80 in.</u>
Amplitude / dB	<u>81.5%</u>	<u>-33.9 dB</u>	<u>-9.4 dB</u>
Sweep	<u>1.65 in.</u>	<u>1.65 in.</u>	<u>1.65 in.</u>
Gain (dB)	<u>24</u>	<u>Log</u>	<u>+25 Log</u>
Screen	<u>Half Path</u>	<u>25 dB Booster</u>	<u>Active</u>

Channel Name 60° RL 04-305 P3 / R3

## General

Timebase Start 0.0 in. Range 5.5 in.  
Units Half Path

## Digitizer

Synchro Pulse ☒ A Scan Sample Size 8 Bk  
Averaging 1 Acquisition Rate 301 Hz  
Digitizing Frequency 12.5 MHz Max Recurrence 2000 Hz

## Pulser / Receiver

Configuration Conventional Pitch Catch  
Pulser P3 Receiver R3  
Voltage 300 V Scale Type LOG  
Width (Ns) 250 ns Rectification Unsigned  
Smoothing 2 MHz

## Probe

Wave Type Longitudinal Scan offset 0.00 in.  
Velocity 0.2272 in./sec. Index offset -5.20 in.  
Wedge Delay 10.637 usec. Angle 60°  
Skew 0/180

N2 - 60° RL - Ax Scan

Field Simulator CS Rompas S/N CAL-RHOM-095

Reflector Far SDH

Max Amplitude/dB -7.2 dB

Sweep 1.55"

Gain (dB) + Log

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	<u>0920</u>	<u>4/11/2005</u>	<u>CAL-DPTH-063</u>	<u>RJ</u>
Verified	<u>1531</u>	<u>4/22/2005</u>	<u>CAL-RHOM-095</u>	<u>SG</u>
Verified				
Verified				
Final	<u>2226</u>	<u>4/22/2005</u>	<u>CAL-RHOM-095</u>	<u>MW</u>

Robert Scott Getz

Operator

Analyst

II

Level

4/22/2005

Date

III

Level

4-25-05

Date

Utility Review

ANIII Review

Level

Date

Date

Page 11 of 13

Page 148/240



GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET (Automated with Micro TomoScan)

Site Pilgrim Nuclear Power

Unit 1

Project RF-015

Report Number

APR-009

Calibration Sheet No.

APC-075

Weld 2R-N2E-1

Procedure No. TP04-016 (GE-UT-209)

Version

R1 (V17)

DRR

N/A

Instrument

Zetec / u Tomo

18121-09

2.2Q14

2.2Q14

Manufacturer / Model

System Serial No.

Acquisition Software

Analysis Software

Pulser/Receiver  
Main Board:

R/D Tech EQTX 100  
Manufacturer / Model

Pulser/Receiver  
Piggy Board:

R/D Tech EQTX 101  
Manufacturer / Model

Digitizer:

R/D Tech EQTX 098  
Manufacturer / Model

Search Unit

RTD

00-349

2(10x18) mm

1.0 MHz

60° / RL

0.59"

60°

0.50"

Manufacturer

Serial No.

Element Size

Freq. (MHz)

Angle / Mode

FD,FS/SA,RA

Measured Angle

Incident to Wedge Front

Cable

RG-58/RG-58/RG-174

250' / 25' / 3'

2

Type

Length

No. of Intermediate Connectors

Calibration Standard

CAL-DPTH-063

SS

0.6"

0.6"

Serial No.

Material

Nominal Thickness

Measured Thickness

Thermometer

241878

75 °F

Couplant

Demin Water

N/A

Serial No.

Temp (°F)

Type

Batch No.

## Calibration

Orientation	<u>Circ</u>	<u>Circ</u>	<u>Circ</u>
Type	<u>SDH</u>	<u>SDH</u>	<u>SDH</u>
Depth	<u>0.60 in.</u>	<u>0.60 in.</u>	<u>0.60 in.</u>
Amplitude / dB	<u>84.3%</u>	<u>-42.0 dB</u>	<u>-18.8 dB</u>
Sweep	<u>1.18 in.</u>	<u>1.18 in.</u>	<u>1.18 in.</u>
Gain (dB)	<u>32</u>	<u>Log</u>	<u>+25 Log</u>
Screen	<u>Half Path</u>	25 dB Booster	<u>Active</u>

Channel Name

60° RL 00-349 P3 / R3

## General

Timebase

Start 0.0 in.

Range 5.5 in.

Units

Half Path

## Digitizer

Synchro Pulse

☒ A Scan

Sample Size

8 Bit

Averaging

1

Acquisition Rate

301 Hz

Digitizing Frequency

6.25 MHz

Max Recurrence

2000 Hz

## Pulser / Receiver

Configuration

Conventional Pitch Catch

Pulser

P3

Receiver

R3

Voltage

300 V

Scale Type

LOG

Width (Ns)

500 ns

Rectification

Unsigned

Smoothing

1 MHz

## Probe

Wave Type

Longitudinal

Scan offset

-5.20 in.

Velocity

0.2272 in./sec.

Index offset

0.00 in.

Wedge Delay

9.597 usec.

Angle

60°

Skew

0/180

N2 - 60° RL - Circ Scan

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	<u>0733</u>	<u>4/23/2005</u>	<u>CAL-DPTH-063</u>	<u>RJ</u>
Verified	<u>1025</u>	<u>4/23/2005</u>	<u>CAL-RHOM-095</u>	<u>RJ</u>
Verified	<u>1705</u>	<u>4/23/2005</u>	<u>CAL-RHOM-095</u>	<u>SG</u>
Verified				
Final	<u>0120</u>	<u>4/24/2005</u>	<u>CAL-RHOM-095</u>	<u>PK</u>

Robert Scott Getz

II

4/22/2005

Operator

Level

Date

Utility Review

Level

Date

Analyst

Level

Date

ANIII Review

Date

Page 12 of 13

Page 149/240



GE ENERGY, NUCLEAR

## EXAMINATION SUMMARY SHEET

Report No.:  
APR-011Site: Pilgrim Nuclear Power Station Component ID:2R-N2G-1Outage: RF-015SAFE END TO NOZZLESystem RPV ASME Cat.: B-F ASME Item B5.10 Aug Req N/A

Exams Performed	Data Sheet	Cal Sheet	Procedure	Calibration Block	Examination Personnel	Cert Level	Date
45° / S	N/A	APC-059	TP04-016 (GE-UT-209) R1 (V17)	PIL-76	Kyle Davidson	I-L	4/25/2005
45° / RL	N/A	APC-060	TP04-016 (GE-UT-209) R1 (V17)	PIL-78	Kyle Davidson	I-L	4/25/2005
45° / RL	N/A	APC-061	TP04-016 (GE-UT-209) R1 (V17)	PIL-78	Kyle Davidson	I-L	4/25/2005
60° / RL	N/A	APC-062	TP04-016 (GE-UT-209) R1 (V17)	CAL-DPTH-063	Kyle Davidson	I-L	4/25/2005
60° / RL	N/A	APC-063	TP04-016 (GE-UT-209) R1 (V17)	CAL-DPTH-063	Kyle Davidson	I-L	4/25/2005
N/A	APD-006	N/A	TP04-016 (GE-UT-209) R1 (V17)	N/A	Kyle Davidson	I-L	4/25/2005

## Examination Results:

During the automated ultrasonic examination of the above referenced dissimilar metal weld, no indications associated with IGSCC were recorded with the "SMART 2000" system utilizing a 45° shear wave, 45° and 60° refracted longitudinal wave search units.

The 45° shear wave examinations were performed from both the upstream and downstream sides of the weld. Root geometry, inside surface geometry, beam redirect and non-relevant indications were recorded.

The 45° RL wave examinations were performed from both the upstream and downstream sides of the weld. Root geometry, acoustic interface, welding discontinuity, inside surface geometry and non-relevant indications were recorded.

The 60° RL wave examinations were performed from both the upstream and downstream sides of the weld. Acoustic interface, inside surface geometry, welding discontinuity, and non-relevant indications were recorded.

A welding discontinuity was detected and sized to IWB 3514-1. It was found to be acceptable. The indication had the following parameters:

Length: 8.83"-12.43"

Through wall: none

This indication was recorded but not reported in the previous automated data.

The outside surface weld crown did not meet procedure requirements from 0° to 4°, 23° to 28°, 31° to 34° and 38° to 42° circumferentially. 71.8% procedural coverage obtained.

75.3% code coverage obtained.

Previous automated electronic data and automated reports and drawings were reviewed prior to this summary.

Examination results were compared to data report 97-E-357 from 1997 outage with ☐ No Change

These examinations were performed under Work Order: 03116627 ☒ Change

This Summary and the following data sheets have been reviewed and accepted by the following personnel:

Prepared By: [Signature] Level: UT Date: 4-27-05 Utility Review: [Signature] Date: 4-28-05  
ANII Review: [Signature] Date: 4/29/05

RWP: 0082

Dose: 1250 mr.

Page 1 of 14

Page 150/240





GE ENERGY, NUCLEAR

## Wall Thickness Profile Sheet

Site: Pillar Nuclear Power Station Unit: 1

Report No.: APR-011

Project: RF-015

System: RPV

Component ID Number: 2R-N2G-1

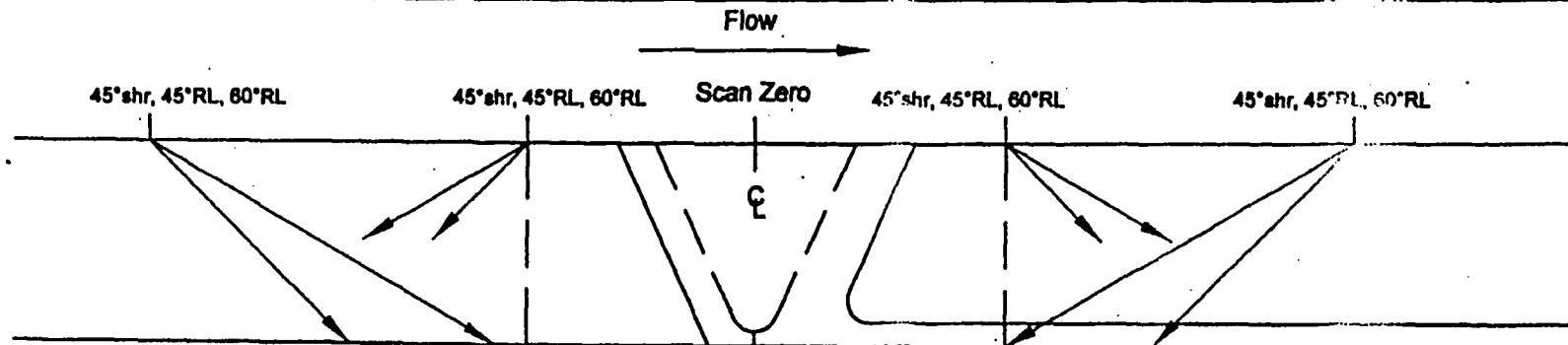
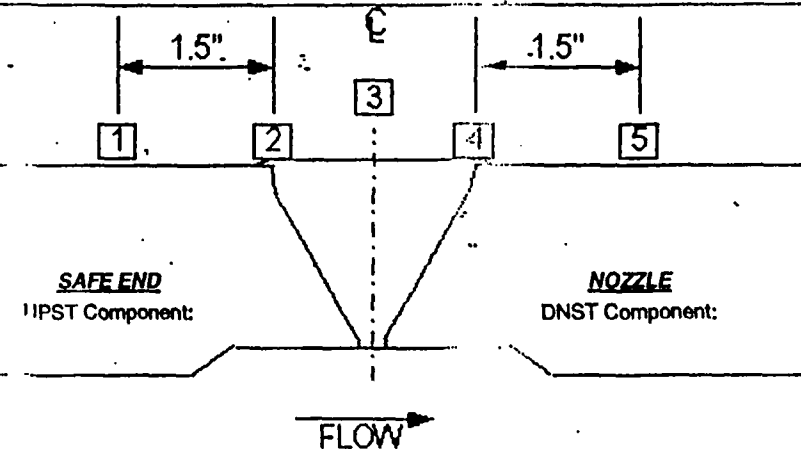
Position	0°	90°	180°	270°
1	1.18"	N/A	N/A	N/A
2	1.17"	N/A	N/A	N/A
3	1.20"	N/A	N/A	N/A
4	1.14"	N/A	N/A	N/A
5	1.16"	N/A	N/A	N/A

Crown Height: FLUSH

Crown Width: 1.4"

Nominal Diameter: 12.0"

Weld Length: 42.25"



Safe End (-)

Procedural Exam Volume

Nozzle (+)

Weld preps obtained from drawings; 137C8066 and M1A73 sheet 2  
Bottom of nozzle bore to Inc/CS interface = 4.0"  
Bottom of SE taper to Inc/CS interface = 8.0"

CB

Charles Barrett

II 4/25/2005

Initials: Examiner:

Level: Date:

GE Reviewed By:

Level: Date:

Utility Review:

Date:

ANII Review:

Date:

Page 151/240



GE ENERGY, NUCLEAR

# Wall Thickness Profile Sheet

Site: Pilarim Nuclear Power Station Unit: 1

Report No.:

Project: RF-015

APR-011

System: RPV

Component ID Number: 2B-N2G-1

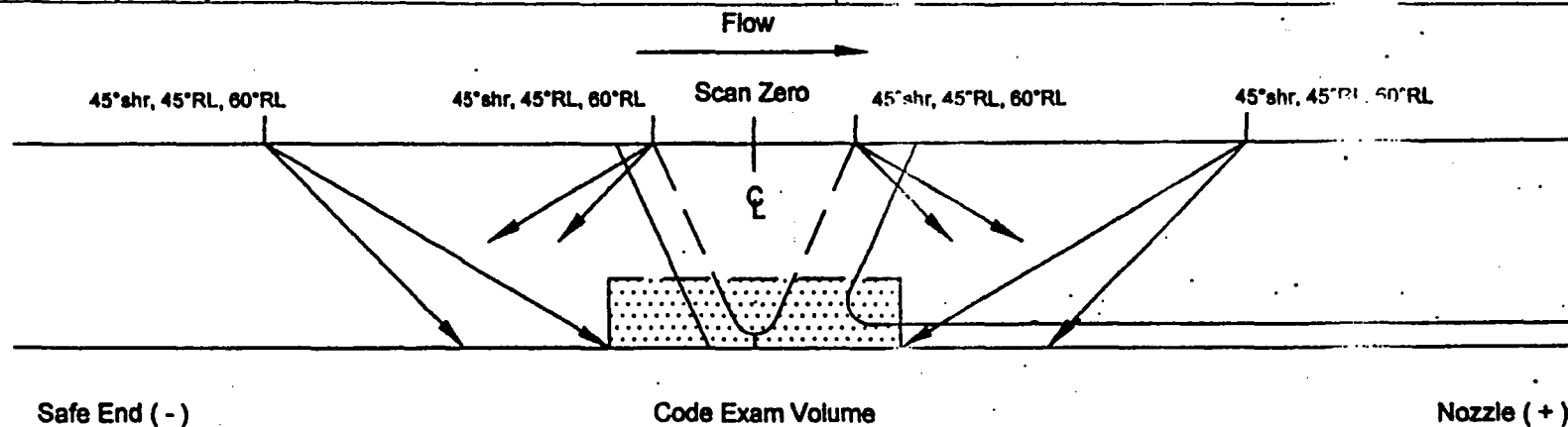
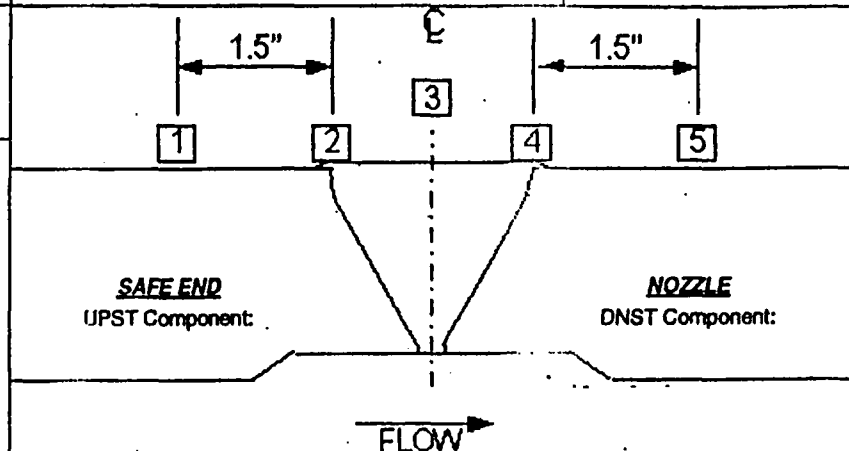
Position	0°	90°	180°	270°
1	1.18"	N/A	N/A	N/A
2	1.17"	N/A	N/A	N/A
3	1.20"	N/A	N/A	N/A
4	1.14"	N/A	N/A	N/A
5	1.16"	N/A	N/A	N/A

Crown Height: FLUSH

Crown Width: 1.4"

Nominal Diameter: 12.0"

Weld Length: 42.25"



Weld preps obtained from drawings; 137C8066 and M1A73 sheet 2  
Bottom of nozzle bore to Inc/CS interface = 4.0"  
Bottom of SE taper to Inc/CS interface = 8.0"

*Bar*

Charles Barrett

II 4/25/2005

Initials: Examiner:

Level: Date:

*[Signature]*

GE Reviewed By:

Level: Date:

II 4/27-05

*[Signature]*

Utility Review:

Date:

UT Lvl. III 4-28-05

*[Signature]*

ANII Review:

Date:

4/29/05

Page 152/240



GE ENERGY, NUCLEAR

# Indication / Coverage Plot Sheet

Site: Pilgrim Nuclear Power Station Unit: 1

Project: RF-015

Report Number.: APR-011

System: RPV

Component ID Number: 2R-N2G-1

Configuration: SAFE END

NOZZLE

0°

INC/CS

90°

INC/CS

180°

INC/CS

270°

INC/CS

CB

Charles Barrett

II

4/25/2005

Initials: Examiner:

Level: Date:

GE Reviewed By:

Level:

Date:

Utility Reviewed By:

Date:

ANII Reviewed By:

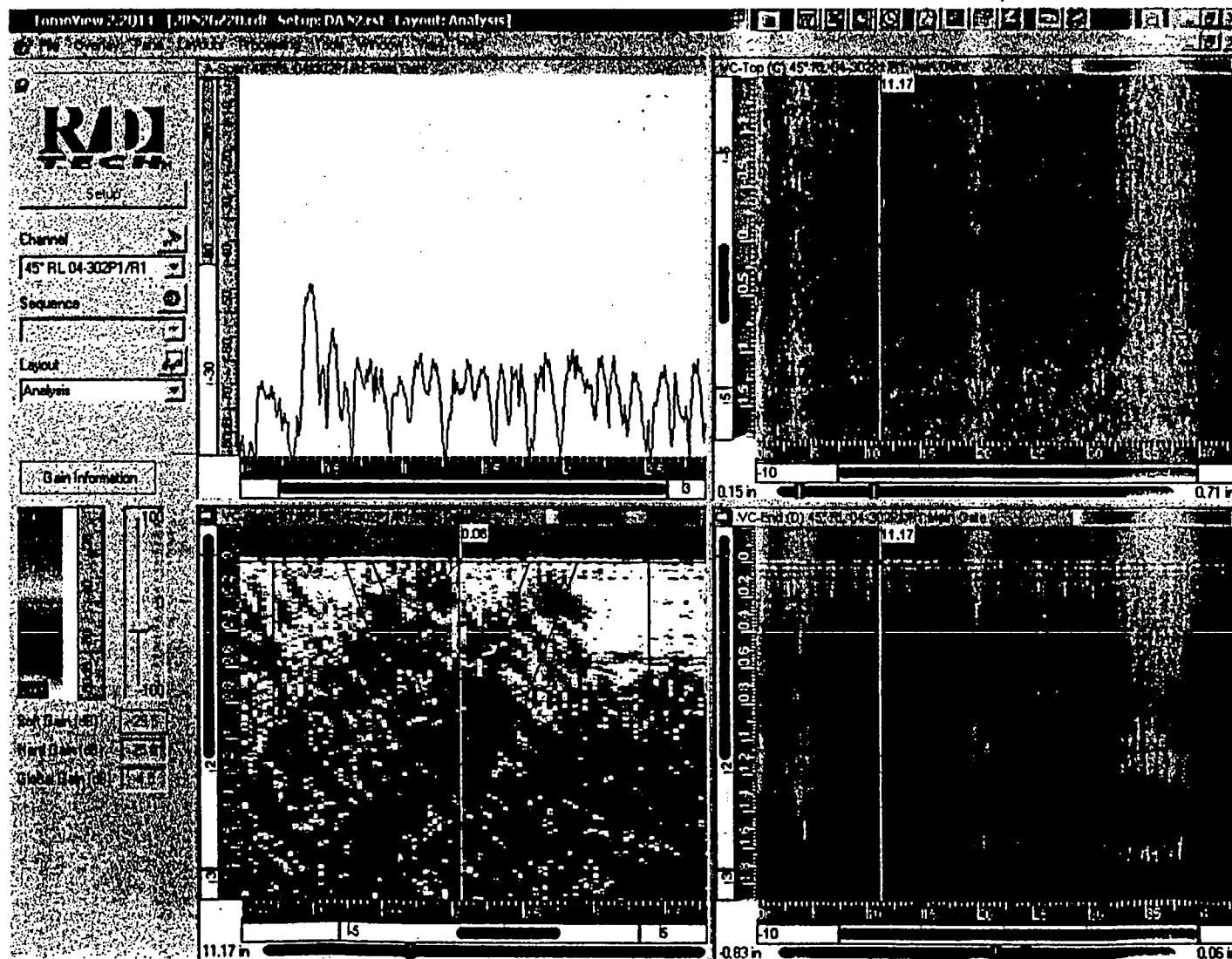
Date:

Page 153/240



N2G Safe End to Nozzle

45°RL LKUP Welding Discontinuity

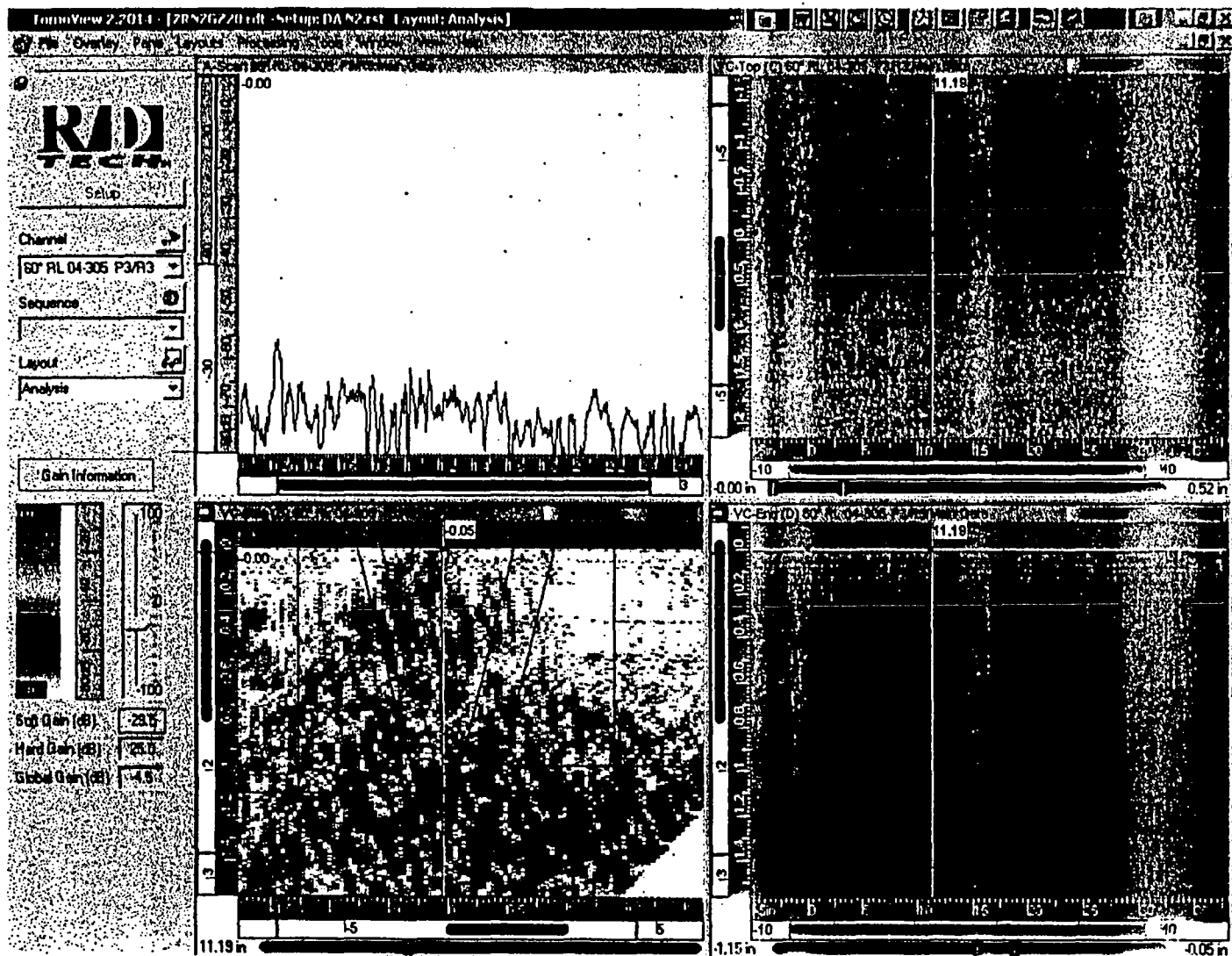


809 154/240



N2G Safe End to Nozzle

60°RL LKUP Welding Discontinuity

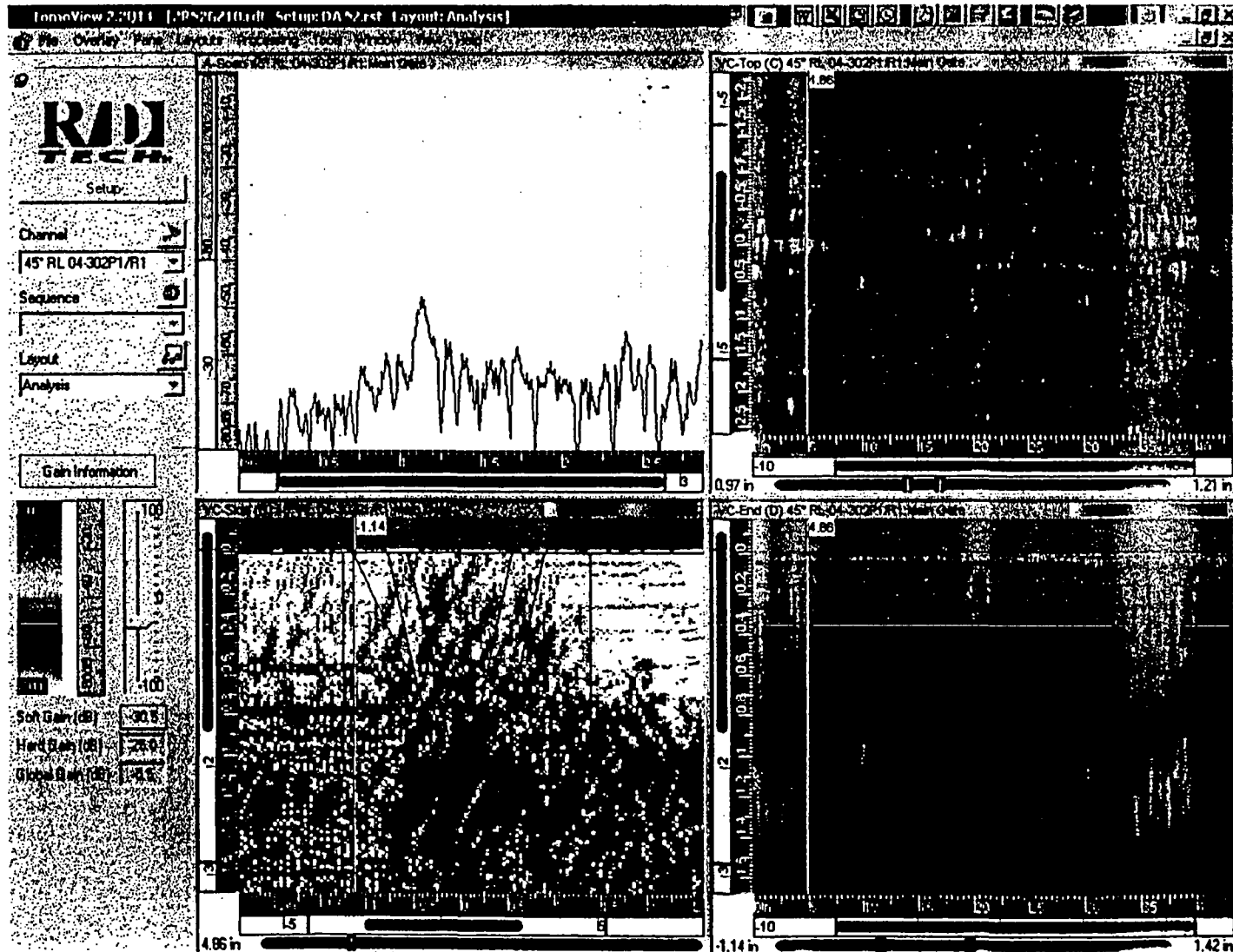


Page 155/240



N2G Safe End to Nozzle

45°RL LKUP Root Geometry



Log 156/240



GE Nuclear Energy

Ultrasonic Data / Scan Parameter Sheet  
(Automated with Micro TomoScan)

Site: <u>Pilarim Nuclear Power Station</u>	Procedure: <u>TP04-016 (GE-UT-209)</u>	System: <u>RPV</u>	Report No.: <u>APR-011</u>
Unit: <u>1</u>	Version / Revision: <u>R1 (V17)</u>	Weld No.: <u>2R-N2G-1</u>	Data Sheet No.: <u>APD-006</u>
Project No.: <u>RF-015</u>	DRR: <u>N/A</u>	Configuration: <u>SAFE END TO NOZZLE</u>	Calibration Sheet No.

Scanner Information

Weld Reference, (GE-ADM-1005): Lo: <u>TDC</u> Wo: <u>Weld Centerline</u>	Motor Steps: Clr: <u>2092</u>	Tra: <u>2500</u>
Examination Surface: <u>OD</u>	Exam Surface Temperature: <u>72 °F</u>	Thermometer S/N: <u>241878</u>
	Exam Start: <u>4/25/2005 4:20:00 AM</u>	Exam End: <u>4/25/2005 10:16:00 PM</u>
Nominal Pipe Size <u>12"</u>	Nominal Thickness: <u>1.07"</u>	Weld Width: <u>1.12"</u>
Scanner: <u>NOVA</u>	Track Diameter: <u>16"</u>	Arm Length: <u>18"</u>
	Weld Length: <u>.42"</u>	Track Location: <u>7.5" UPST OF SE TAPER</u>
	X Positive Scan Direction: <u>DOWNSTREAM</u>	Y Positive Scan Direction: <u>CW</u>
Resolution: <u>≤ 0.036"</u>	Index Ax / Circ: <u>≤ 0.18"</u> <u>≤ 0.048"</u>	Axial Scan Speed: <u>≤ 1.94 in./Sec.</u>
Scanner Zero Positions: CIR: <u>TOP DEAD CENTER</u>	TRA: <u>WELD CENTERLINE</u>	Circ Scan Speed: <u>≤ 0.98 in./Sec.</u>
	ROT Zero: <u>LOOKING DOWNSTREAM</u>	

Scan Parameters and Results

Scan:	Skew:	File ID:	Disk:	X-Start:	X-Stop:	Y-Start:	Y-Stop:	Gain:	Results:	Comments:
<u>Z10</u>	<u>0</u>	<u>2RN2GZ10</u>	<u>D-10</u>	<u>-4.1"</u>	<u>2.2"</u>	<u>0.0"</u>	<u>43.0"</u>	<u>Log</u>	<u>C,D,E,H</u>	<u>Uni-directional</u>
<u>Z20</u>	<u>180</u>	<u>2RN2GZ20</u>	<u>D-10</u>	<u>-2.4"</u>	<u>4.1"</u>	<u>0.0"</u>	<u>43.0"</u>	<u>Log</u>	<u>C,D,G,E</u>	<u>Uni-directional</u>
<u>Z30</u>	<u>0</u>	<u>2RN2GZ30</u>	<u>D-10</u>	<u>0.0"</u>	<u>43.0"</u>	<u>-2.7"</u>	<u>2.9"</u>	<u>Log</u>	<u>C</u>	<u>Uni-directional</u>
<u>Z40</u>	<u>180</u>	<u>2RN2GZ40</u>	<u>D-10</u>	<u>0.0"</u>	<u>43.0"</u>	<u>-0.6"</u>	<u>2.9"</u>	<u>Log</u>	<u>C</u>	<u>Uni-directional - Downstream side</u>
<u>Z42</u>	<u>180</u>	<u>2RN2GZ42</u>	<u>D-10</u>	<u>0.0"</u>	<u>43.0"</u>	<u>-2.7"</u>	<u>-1.1"</u>	<u>Log</u>	<u>C</u>	<u>Upstream side</u>

EXAMINATION RESULTS LEGEND

A - NO RECORDABLE INDICATIONS	B - NON-GEOMETRIC INDICATIONS	C - NON-RELEVANT INDICATIONS	D - ACOUSTIC INTERFACE
E - INSIDE SURFACE	F - OUTSIDE SURFACE	G - WELD DISCONTINUITY	H - ROOT GEOMETRY
I - COUNTERBORE	J - SHEAR COMPONENT	K - BEAM RE-DIRECT	

Comments:

High weld crown from a 'L' of 0" - 4", 23" - 28", 31" - 34" and 38" - 42". These areas do not meet the requirements of the procedure.

Kyle Davidson

Examiner:

HL 4/25/2005

Level: Date:

GE Review

Level:

Date:

Utility Review

Date:

ANII Review:

Date:

Page 157/240



GE Energy, Nuclear

ULTRASONIC CALIBRATION DATA SHEET  
(Automated with Micro TomoScan)

Site Pilgrim Nuclear Power Unit 1 Project RF-015 Report Number APR-011  
Weld 2R-N2G-1 Calibration Sheet No. APC-059

Procedure No. TP04-016 (GE-UT-209) Version R1 (V17) DRF N/A

Instrument Zetec / uTomo 18121-09 2.2Q14 2.2Q14  
Manufacturer / Model System Serial No. Acquisition Software Analysis Software  
Pulser/Receiver R/D Tech EQTX 100 Pulser/Receiver R/D Tech EQTX 101 Digitizer: R/D Tech EQTX 098  
Main Board: Manufacturer / Model Manufacturer / Model Manufacturer / Model  
Search Unit R/D 03-341 ELK24x17 mm 1.5 MHz 45° / S N/A 45° 0.52°  
Manufacturer Serial No. Element Size Freq. (MHz) Angle / Mode FD, FS/SA, RA Measured Incident to  
Cable RG-58/RG-58/RG-174 250' / 25' / 3' 2 2  
Type Length No. of Intermediate Connectors  
Calibration Standard PIL-78 SS 1.3" 1.3"  
Serial No. Material Nominal Thickness Measured Thickness  
Thermometer 241878 75 °F Demin Water N/A  
Serial No. Temp (°F) Couplant Type Batch No.

Calibration  
Orientation Circ Circ  
Type ID Notch ID Notch  
Depth 1.30 in. 1.30 in.  
Amplitude / dB 85.4% -9.4 dB  
Sweep 1.91 in. 1.91 in.  
Gain (dB) 1.0 Log  
Screen Half Path 25 dB Booster Inactive

Field Simulator CS Rompas S/N CAL-RHOM-095

Reflector Far SDH  
Max Amplitude/dB -19.5 dB  
Sweep 1.01"  
Gain (dB) Log

Calibration Verification

	Time	Date	Block(s)	Operator
Initial	0847	4/11/2005	PIL 78	RJ
Verified	0250	4/25/2005	CAL-RHOM-095	SG
Verified	0735	4/25/2005	CAL-RHOM-095	SG
Verified	1842	4/25/2005	CAL-RHOM-095	KD
Final	2214	4/25/2005	CAL-RHOM-095	KD

Channel Name 03-341 45° Shear P2

General  
Timebase Start 0.0 in. Range 4.0 in.  
Units Half Path

Digitizer  
Synchro Pulse ☒ A Scan Sample Size 8 Bit  
Averaging 1 Acquisition Rate 301 Hz  
Digitizing Frequency 12.5 MHz Max Recurrence 2000 Hz

Pulser / Receiver  
Configuration Conventional Pulse Echo  
Pulser P2 Receiver N/A  
Voltage 300 V Scale Type LOG  
Width (Ns) 333 ns Rectification Unsigned  
Smoothing 2 MHz

Probe  
Wave Type Transverse Scan offset -2.60 in.  
Velocity 0.1240 in./sec. Index offset 0.00 in.  
Wedge Delay 11.778 usec. Angle 45°  
Skew 0/180

N2 - 45° Shear - Ax/Circ Scan  
Ax: Scan offset - 0.0" Index offset - 2.6"  
Circ: Scan offset - 2.6" Index offset 0.0"

Kyle Davidson I-L 4/25/2005  
Operator Level Date  
Analyst TIL 4-27-05  
Level Date

Utility Review

ANIII Review

TIL 4-28-05  
Level Date  
4/28/05  
Date

Page 9 of 14

Page 158/240





GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET

(Automated with Micro TomoScan)

Site Pilgrim Nuclear Power Unit 1 Project RF-015 Report Number APR-011  
 Weld 2R-N2G-1 Calibration Sheet No. APC-060

Procedure No. TP04-016 (GE-UT-209) Version R1 (V17) DRR N/A

Instrument Zetec / u Tomo 181R1-09 2.2Q14 2.2Q14  
 Manufacturer / Model System Serial No. Acquisition Software Analysis Software  
 Pulser/Receiver R/D Tech EQTX 100 Pulser/Receiver R/D Tech EQTX 101 Digitizer: R/D Tech EQTX 098  
 Main Board: Manufacturer / Model Manufacturer / Model Manufacturer / Model  
 Search Unit. RTD 04-302 2(10x18) mm 2.0 MHz 45° / RL 1.00" 45° 0.55"  
 Manufacturer Serial No. Element Size Freq. (MHz) Angle / Mode FD,FS/SA,RA Measured Incident to  
 Cable RG-58/RG-58/RG-174 250' / 25' / 3' 2  
 Type Length No. of Intermediate Connectors  
 Calibration Standard PIL-78 SSINC 1.3" 1.3"  
 Serial No. Material Nominal Thickness Measured Thickness  
 Thermometer 241878 75 °F Demin Water N/A  
 Serial No. Temp (°F) Couplant Type Batch No.

**Calibration**  
 Orientation Circ Circ Circ  
 Type ID Notch ID Notch ID Notch  
 Depth 1.30 in. 1.30 in. 1.30 in.  
 Amplitude / dB 82.4% -32.0 dB -7.2 dB  
 Sweep 1.85 in. 1.85 in. 1.85 in.  
 Gain (dB) 23.0 Log +25 Log  
 Screen Half Path 25 dB Booster Active  
 Field Simulator CS Rompas S/N CAL-RHOM-095  
 Reflector Far SDH  
 Max Amplitude/dB -5.3 dB  
 Sweep 1.04"  
 Gain (dB) Log

**Calibration Verification**

	Time	Date	Block(s)	Operator
Initial	0900	4/11/2005	PIL 78	RJ
Verified	1840	4/25/2005	CAL-RHOM-095	KD
Verified				
Verified				
Final	2216	4/25/2005	CAL-RHOM-095	KD

Channel Name 45° RL 04-302 P1/R1  
**General**  
 Timebase Start 0.0 in. Range 4.0 in.  
 Units Half Path  
**Digitizer**  
 Synchro Pulse ☒ A Scan Sample Size 8 Bit  
 Averaging 1 Acquisition Rate 301 Hz  
 Digitizing Frequency 12.5 MHz Max Recurrence 2000 Hz  
**Pulser / Receiver**  
 Configuration Conventional Pitch Catch  
 Pulser P1 Receiver R1  
 Voltage 300 V Scale Type LOG  
 Width (Ns) 250 ns Rectification Unsigned  
 Smoothing 2 MHz  
**Probe**  
 Wave Type Longitudinal Scan offset 0.00 in.  
 Velocity 0.2272 in./sec. Index offset 0.00 in.  
 Wedge Delay 9.675 usec. Angle 45°  
 Skew 0/180

N2 - 45° RL - Ax Scan

Kyle Davidson I-L 4/25/2005  
 Operator Level Date  
 Analyst [Signature] [Signature] 4/27-05  
 Level Date

Utility Review

ANIII Review

[Signature] UT 4-28-05  
 Level Date  
[Signature] 4/28/05  
 Date

Page 10 of 14

Page 159/240



GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET (Automated with Micro TomoScan)

Site Pilgrim Nuclear Power Unit 1 Project RF-015 Report Number APR-011  
Calibration Sheet No. APC-061  
Weld 2R-N2G-1

Procedure No. TP04-016 (GE-U1-209) Version R1 (V17) DRF N/A

Instrument Zetec / uTomo 18121-09 2.2Q14 2.2Q14  
Manufacturer / Model System Serial No. Acquisition Software Analysis Software  
Pulser/Receiver R/D Tech EQTX 100 Pulser/Receiver R/D Tech EQTX 101 Digitizer: R/D Tech EQTX 098  
Main Board: Manufacturer / Model Manufacturer / Model Manufacturer / Model  
Search Unit RTD 04-310 2(10x18)mm 1.0 MHz 45° / RL 0.84° 45° 0.55°  
Manufacturer Serial No. Element Size Freq. (MHz) Angle / Mode FD,FS/SA,RA Measured Incident to  
Cable RG-58/RG-58/RG-174 250' / 25' / 3' 2  
Type Length No. of Intermediate Connectors  
Calibration Standard PIL-78 SS/INC 1.3° 1.3°  
Serial No. Material Nominal Thickness Measured Thickness  
Thermometer 241878 75 °F Demin Water N/A  
Serial No. Temp (°F) Couplant Type Batch No.

**Calibration**  
Orientation Circ Circ Circ  
Type ID Notch ID Notch ID Notch  
Depth 1.30 in. 1.30 in. 1.30 in.  
Amplitude / dB 83.9% -46.4 dB -23.5 dB  
Sweep 1.85 in. 1.85 in. 1.85 in.  
Gain (dB) 37 Log +25 Log  
Screen Half Path 25 dB Booster Active

Channel Name 45° RL 04-310 P1/R1  
**General**  
Timebase Start 0.0 in. Range 4.0 in.  
Units Half Path  
**Digitizer**  
Synchro Pulse ☒ A Scan Sample Size 8 Bit  
Averaging 1 Acquisition Rate 301 Hz  
Digitizing Frequency 6.25 MHz Max Recurrence 2000 Hz

Field Simulator CS Rompas S/N CAL-RHOM-095

Reflector Far SDH  
Max Amplitude/dB -17.3 dB  
Sweep 1.0°  
Gain (dB) + Log

**Pulser / Receiver**  
Configuration Conventional Pitch Catch  
Pulser P1 Receiver R1  
Voltage 300 V Scale Type LOG  
Width (Ns) 500 ns Rectification Unsigned  
Smoothing 1 Mhz

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	0708	4/23/2005	PIL 78	RJ
Verified	0255	4/25/2005	CAL-RHOM-095	SG
Verified	0732	4/25/2005	CAL-RHOM-095	SG
Verified				
Final	1840	4/25/2005	CAL-RHOM-095	KD

**Probe**  
Wave Type Longitudinal Scan offset 0.00 in.  
Velocity 0.2272 in./sec. Index offset 0.00 in.  
Wedge Delay 11.170 usec. Angle 45°  
Skew 0/180

N2 - 45° RL - Circ Scan

Kyle Davidson I-L 4/25/2005  
Operator Level Date  
[Signature] III 4-27-05  
Analyst Level Date

[Signature] 217 III 4-28-05  
Utility Review Level Date  
[Signature] 7/2/05  
ANIII Review Date



GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET (Automated with Micro TomoScan)

Site Pilgrim Nuclear Power Unit 1Project RF-015Report Number APR-011Calibration Sheet No. APC-062Weld 2R-N2G-1Procedure No. TP04-016 (GE-UT-209)Version R1 (V17)

DRR

N/AInstrument Zetec / u Tomo  
Manufacturer / ModelSystem Serial No. 18121-09Acquisition Software 2.2Q14 Analysis Software 2.2Q14Pulser/Receiver Main Board: R/D Tech EQTX 100  
Manufacturer / ModelPulser/Receiver Piggy Board: R/D Tech EQTX 101  
Manufacturer / ModelDigitizer: R/D Tech EQTX 098  
Manufacturer / ModelSearch Unit RTD 04-305  
Manufacturer Serial No.2(10x18) mm  
Element Size2.0 MHz 60° / RL  
Freq. (MHz) Angle / Mode0.77"  
FD, FS/SA, RA61° 0.52"  
Measured Angle Incident to Wedge FrontCable RG-58/RG-58/RG-174  
Type250' / 25' / 3'  
Length2  
No. of Intermediate ConnectorsCalibration Standard CAL-DPTH-063  
Serial No.Material SS Nominal Thickness 0.8"Measured Thickness 0.8"Thermometer 241878 75°F  
Serial No. Temp (°F)Couplant Demin Water  
TypeBatch No. N/A

## Calibration

Orientation Circ Circ Circ

Type SDH SDH SDH

Depth 0.80 in. 0.80 in. 0.80 in.

Amplitude / dB 81.5% -33.9 dB -9.4 dB

Sweep 1.65 in. 1.65 in. 1.65 in.

Gain (dB) 24 Log +25 Log

Screen Half Path 25 dB Booster Active

Channel Name 60° RL 04-305 P3 / R3

## General

Timebase Start 0.0 in. Range 5.5 in.  
Units Half Path

## Digitizer

Synchro. Pulse ☒ A Scan Sample Size 8 Bit

Averaging 1 Acquisition Rate 301 Hz

Digitizing Frequency 12.5 MHz Max Recurrence 2000 Hz

## Pulser / Receiver

Configuration Conventional Pitch Catch

Pulser P3 Receiver R3

Voltage 300 V Scale Type LOG

Width (Ns) 250 ns Rectification Unsigned

Smoothing 2 MHz

## Probe

Wave Type Longitudinal Scan offset 0.00 in.

Velocity 0.2272 in./sec. Index offset -5.20 in.

Wedge Delay 10.637 usec. Angle 60°

Skew 0/180

N2 - 60° RL - Ax Scan

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	0920	4/11/2005	CAL-DPTH-063	RJ
Verified	1844	4/25/2005	CAL-RHOM-095	KD
Verified				
Verified				
Final	2212	4/25/2005	CAL-RHOM-095	KD

Kyle Davidson

I-L 4/25/2005

Operator

Level Date

Analyst

Level Date

Utility Review

ANIII Review

Level

Date

Date

Page 12 of 14

Page 161/240



GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET (Automated with Micro TomoScan)

Site Pilgrim Nuclear Power

Unit 1

Project RF-015

Report Number APR-011

Calibration Sheet No. APC-063

Weld 2R-N2G-1

Procedure No. TP04-016 (GE-UT-209)

Version: R1 (V17) DRF. N/A

Instrument	<u>Zetec / uTomo</u>	<u>18121-09</u>	<u>2.2Q14</u>	<u>2.2Q14</u>
Manufacturer / Model		System Serial No.	Acquisition Software	Analysis Software
Pulser/Receiver	<u>R/D Tech EQTX 100</u>	<u>R/D Tech EQTX 101</u>	Digitizer:	<u>R/D Tech EQTX 098</u>
Main Board:	Manufacturer / Model	Manufacturer / Model		Manufacturer / Model
Search Unit	<u>RTD</u>	<u>00-349</u>	<u>2(10x18)mm</u>	<u>1.0 MHz</u>
Manufacturer	Serial No.	Element Size	Freq. (MHz)	Angle / Mode
Cable	<u>RG-58/RG-58/RG-174</u>	<u>250' / 25' / 3'</u>	<u>0.59"</u>	<u>60"</u>
Type		Length	FD,FS/SA,RA	Measured Angle
Calibration Standard	<u>CAL-DPTH-063</u>	<u>2</u>	<u>0.6"</u>	<u>0.6"</u>
Serial No.		No. of Intermediate Connectors	Nominal Thickness	Measured Thickness
Thermometer	<u>241878</u>	<u>75 °F</u>	<u>Demin Water</u>	<u>N/A</u>
Serial No.		Temp (°F)	Type	Etch No.

**Calibration**

Orientation	<u>Circ</u>	<u>Circ</u>	<u>Circ</u>
Type	<u>SDH</u>	<u>SDH</u>	<u>SDH</u>
Depth	<u>0.60 in.</u>	<u>0.60 in.</u>	<u>0.60 in.</u>
Amplitude / dB	<u>84.3%</u>	<u>-12.0 dB</u>	<u>-18.8 dB</u>
Sweep	<u>1.18 in.</u>	<u>1.18 in.</u>	<u>1.18 in.</u>
Gain (dB)	<u>32</u>	<u>Log</u>	<u>+25 Log</u>
Screen	<u>Half Path</u>	25 dB Booster	<u>Active</u>

Field Simulator CS Rompas S/N CAL-RHOM-095

Reflector	<u>Near SDH</u>	<u>N/A</u>
Max Amplitude/dB	<u>-18.8 dB</u>	<u>N/A</u>
Sweep	<u>0.78"</u>	<u>N/A</u>
Gain (dB)	<u>+ Log</u>	<u>N/A</u>

**Calibration Verification**

	Time	Date	Block(s)	Operator
Initial	0733	4/23/2005	CAL-DPTH-063	RJ
Verified	0300	4/25/2005	CAL-RHOM-095	KD
Verified	0738	4/25/2005	CAL-RHOM-095	SG
Verified				
Final	1844	4/25/2005	CAL-RHOM-095	KD

Channel Name 60° RL 00-349 P3 / R3

**General**

Timebase	Start	Range
Units	<u>0.0 in.</u>	<u>5.5 in.</u>
	<u>Half Path</u>	

**Digitizer**

Synchro	<u>Pulse</u>	<input checked="" type="checkbox"/> A Scan	Sample Size	<u>8 Bt</u>
Averaging	<u>1</u>	Acquisition Rate	<u>301 Hz</u>	
Digitizing Frequency	<u>6.25 MHz</u>	Max Recurrence	<u>2000 Hz</u>	

**Pulser / Receiver**

Configuration	<u>Conventional Pitch Catch</u>
Pulser	<u>P3</u>
Receiver	<u>R3</u>
Voltage	<u>300 V</u>
Scale Type	<u>LOG</u>
Width (Ns)	<u>500 ns</u>
Rectification	<u>Unsigned</u>
Smoothing	<u>1 MHz</u>

**Probe**

Wave Type	<u>Longitudinal</u>	Scan offset	<u>-5.20 in.</u>
Velocity	<u>0.2272 in./sec.</u>	Index offset	<u>0.00 in.</u>
Wedge Delay	<u>10.240 usec.</u>	Angle	<u>60°</u>
		Skew	<u>0/180</u>

Blue / System #1  
N2 - 60° RL - Circ Scan

Kyle Davidson	I-L	4/25/2005
Operator	Level	Date
Analyst	Level	Date

Utility Review

ANIII Review

Level	Date
Level	Date

Page 13 of 14

Page 162/240



GE Energy Nuclear

## Micro-Tomo (Smart 2000) - Auto Piping Weld Examination Checklist

Pilgrim Unit 1, 2005  
2R-N2G

<b>2RN2GZ10 LKDN</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	<u>NOTES:</u>
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KD	MW	MJK	MJK	MJK	
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			MJK	MJK	MJK	
<b>2RN2GZ20 LKUP</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	<u>NOTES:</u>
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KD	KD	MJK	MJK	MJK	
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			MJK	MJK	MJK	
<b>2RN2GZ30 LKCW</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	<u>NOTES:</u>
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SG	SG	MJK	MJK	MJK	
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
<b>2RN2GZ40 LKCCW</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	<u>NOTES:</u>
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SG	SG	MJK	MJK	MJK	
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
<b>Notes:</b> Weld profile does not meet procedural requirements from 0"-4", 23"-28", 31"-34" and 38"-42"													

Page 163/240

*[Signature]* HT L-1. III 4-28-05



GE ENERGY, NUCLEAR

## EXAMINATION SUMMARY SHEET

Report No.:  
APR-012Site: Pilgrim Nuclear Power Station Component ID:2R-N2J-1Outage: RF-015SAFE END TO NOZZLESystem RPV ASME Cat.: B-F ASME Item B5.10 Aug Req N/A

Exams Performed	Data Sheet	Cal Sheet	Procedure	Calibration Block	Examination Personnel	Cert Level	Date
45° / RL	N/A	APC-066	TP04-016 (GE-UT-209) R1 (V17)	PIL-76	Kyle Davidson	I-L	4/25/2005
45° / RL	N/A	APC-067	TP04-016 (GE-UT-209) R1 (V17)	PIL-78	Richard Jasken	II	4/27/2005
60° / RL	N/A	APC-068	TP04-016 (GE-UT-209) R1 (V17)	CAL-DPTH-063	Kyle Davidson	I-L	4/25/2005
60° / RL	N/A	APC-069	TP04-016 (GE-UT-209) R1 (V17)	CAL-DPTH-063	Richard Jasken	II	4/27/2005
45° / S	N/A	APC-065	TP04-016 (GE-UT-209) R1 (V17)	PIL-78	Richard Jasken	II	4/27/2005
N/A	APD-008	N/A	TP04-016 (GE-UT-209) R1 (V17)	N/A	Richard Jasken	II	2/27/2005

## Examination Results:

During the automated ultrasonic examination of the above referenced dissimilar metal weld, no indications associated with IGSCC or any reportable indications were recorded with the "SMART 2000" system utilizing a 45° shear wave and 45° & 60° refracted longitudinal wave search units.

The 45° shear wave examinations were performed from both the upstream and downstream sides of the weld. Root geometry, beam redirect and non-relevant indications were recorded.

The 45° RL wave examinations were performed from both the upstream and downstream sides of the weld. Root geometry, acoustic interface, inside surface geometry and non-relevant indications were recorded.

The 60° RL wave examinations were performed from both the upstream and downstream sides of the weld. Inside surface geometry and non-relevant indications were recorded.

The outside surface weld crown did not meet procedure requirements from 13" to 30" on the upstream side of weld centerline and from 0" to 42.0" on the downstream side of the weld centerline to a "W" of 1.10".

65.7% procedural coverage was obtained.  
75% code coverage was obtained.

Previous automated reports and drawings were reviewed prior to this summary.

Examination results were compared to data report 95-E-434 from 1995 outage with ☒ No Change

These examinations were performed under Work Order: 03116627 ☐ Change

This Summary and the following data sheets have been reviewed and accepted by the following personnel:

[Signature]  
Prepared By:

Level: IIIDate: 4-28-05Utility Review: [Signature]ANII Review: [Signature]Date: 4-27-05Date: 7/29/05

RWP: 0082

Dose: 1500 mr.

Page 1 of 13

Page 164/240



GE ENERGY, NUCLEAR

# Wall Thickness Profile Sheet

Site: Pilarim Nuclear Power Station Unit: 1

Project: RF-015

Report No.:

APR-012

System: RPV

Component ID Number: 2R-N2-I-1

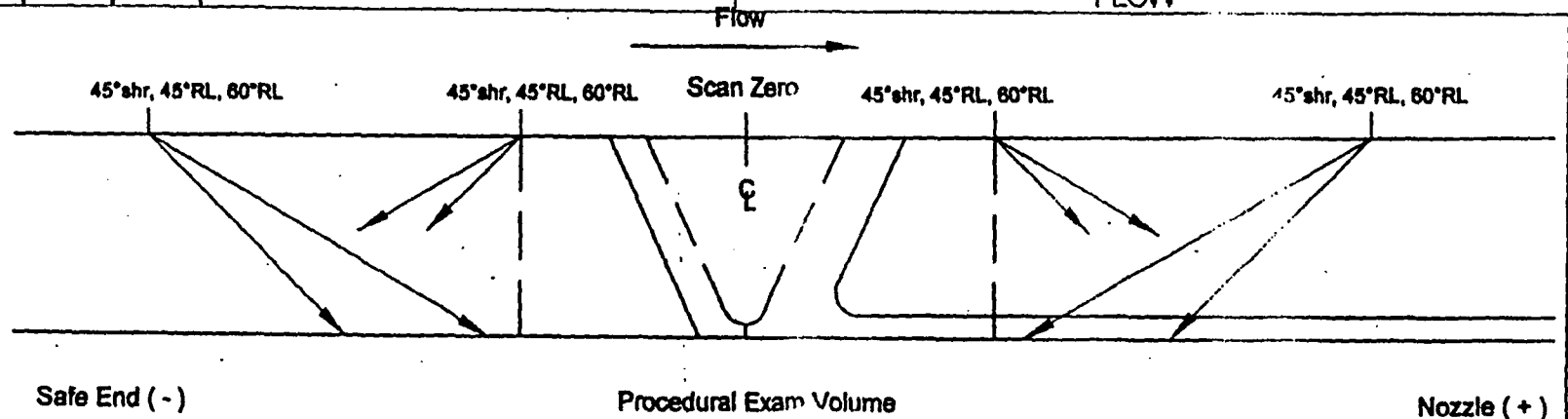
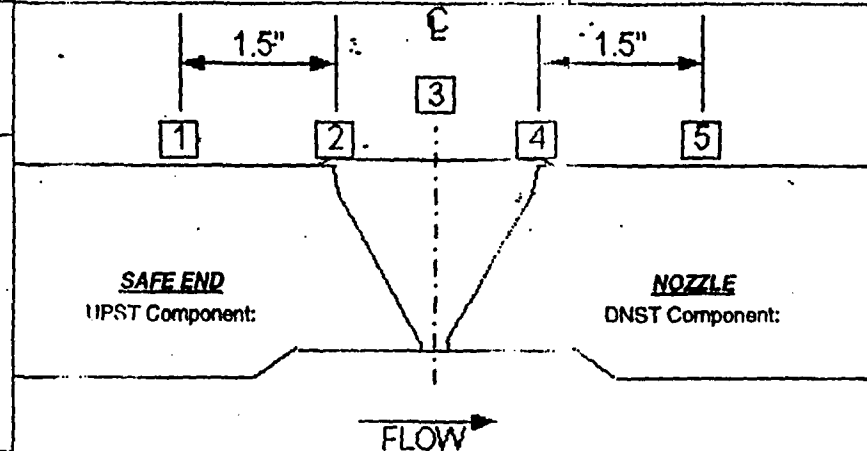
Position	0°	90°	180°	270°
1	1.11"	N/A	N/A	N/A
2	1.11"	N/A	N/A	N/A
3	1.13"	N/A	N/A	N/A
4	1.10"	N/A	N/A	N/A
5	1.14"	N/A	N/A	N/A

Crown Height: 0.1"

Crown Width: 1.8"

Nominal Diameter: 12.0"

Weld Length: 42.0"



Weld preps obtained from drawings; 137C8066 and M1A73 sheet 2  
Bottom of nozzle bore to Inc/CS interface = 4.1"  
Bottom of SE taper to Inc/CS interface = 7.5"

Michael Krueger III 4/27/2005  
Initials: Examiner: Level: Date:

Michael Krueger III 4-29-05  
GE Reviewed By: Level: Date:

UT LVI III 4-29-05  
Utility Review: Date:

4/29/05  
ANII Review: Date:

Page 165/240



GE ENERGY, NUCLEAR

# Wall Thickness Profile Sheet

Site: Pilaris Nuclear Power Station Unit: 1

Report No.: APR-012

Project: RF-015

System: RPV

Position	0°	90°	180°	270°
1	1.11"	N/A	N/A	N/A
2	1.11"	N/A	N/A	N/A
3	1.13"	N/A	N/A	N/A
4	1.10"	N/A	N/A	N/A
5	1.14"	N/A	N/A	N/A

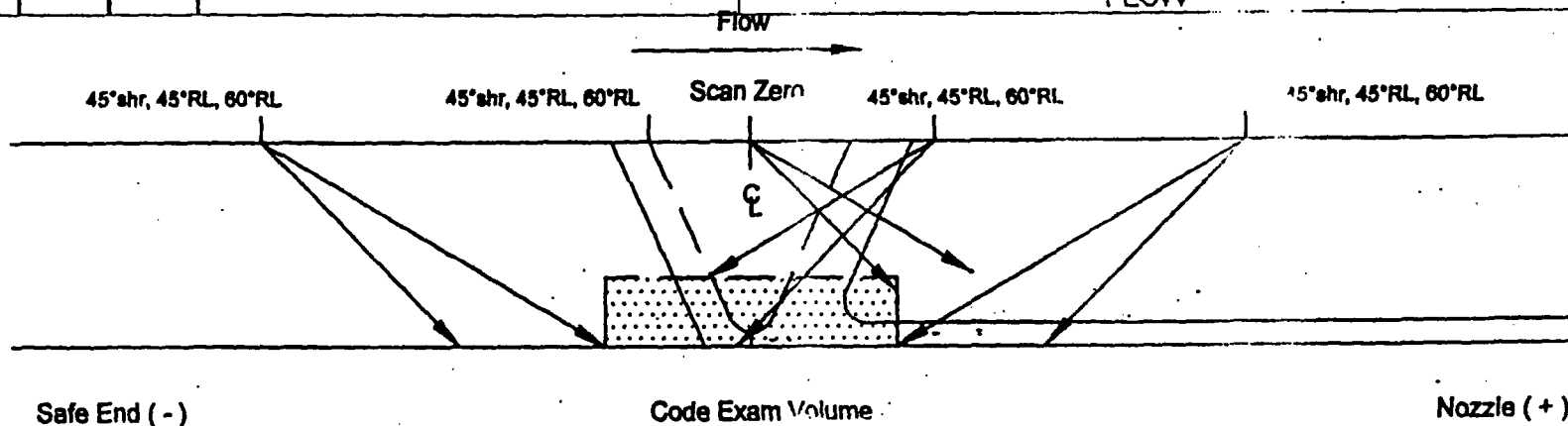
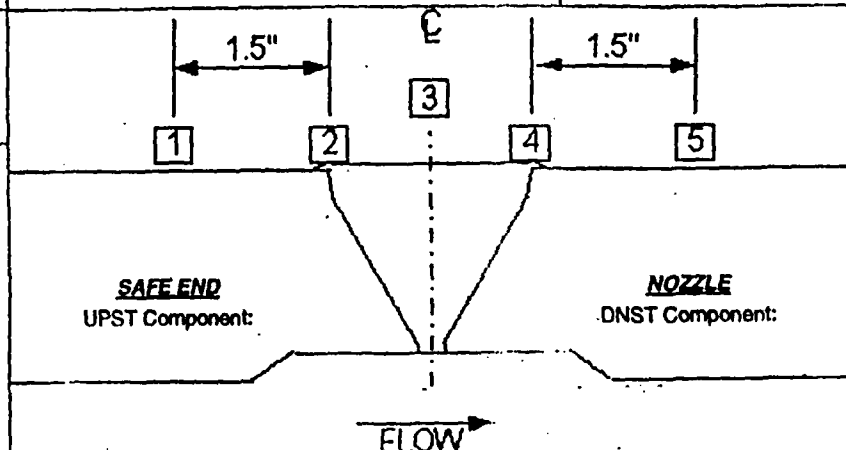
Component ID Number: 2R-N2-L-1

Crown Height: 0.1"

Crown Width: 1.8"

Nominal Diameter: 12.0"

Weld Length: 42.0"



The scans above show the limited areas. The entire volume was scanned.  
Weld preps obtained from drawings; 137C8066 and M1A73 sheet 2  
Bottom of nozzle bore to Inc/CS interface = 4.1"  
Bottom of SE taper to Inc/CS interface = 7.5"

Initials: Michael Krueger Level: III Date: 4/27/2005

GE Reviewed By: Michael Krueger Level: III Date: 4-29-05

Utility Review: AT Lvl. III Date: 4-29-05

ANII Review: Chris Date: 4/28/05

Page 166/240





GE ENERGY, NUCLEAR

# Indication / Coverage Plot Sheet

Site: Pilarim Nuclear Power Station Unit: 1

Project: BE-015

Report Number.: APR-012

System: RPV

Component ID Number: 2R-N2-L-1

Configuration: SAFE END

NOZZLE

0° TDC

ENC/L3

90°

ENC/L3

180°

ENC/L3

270°

ENC/L3

MK

Michael Krueger

III 4/27/2005

Initials: Examiner:

Level: Date:

Michael Krueger

III

4-29-05

GE Reviewed By:

Level:

Date:

HT LVL III

Utility Reviewed By:

4-29-05

Date:

Carl

ANII Reviewed By:

4/29/05

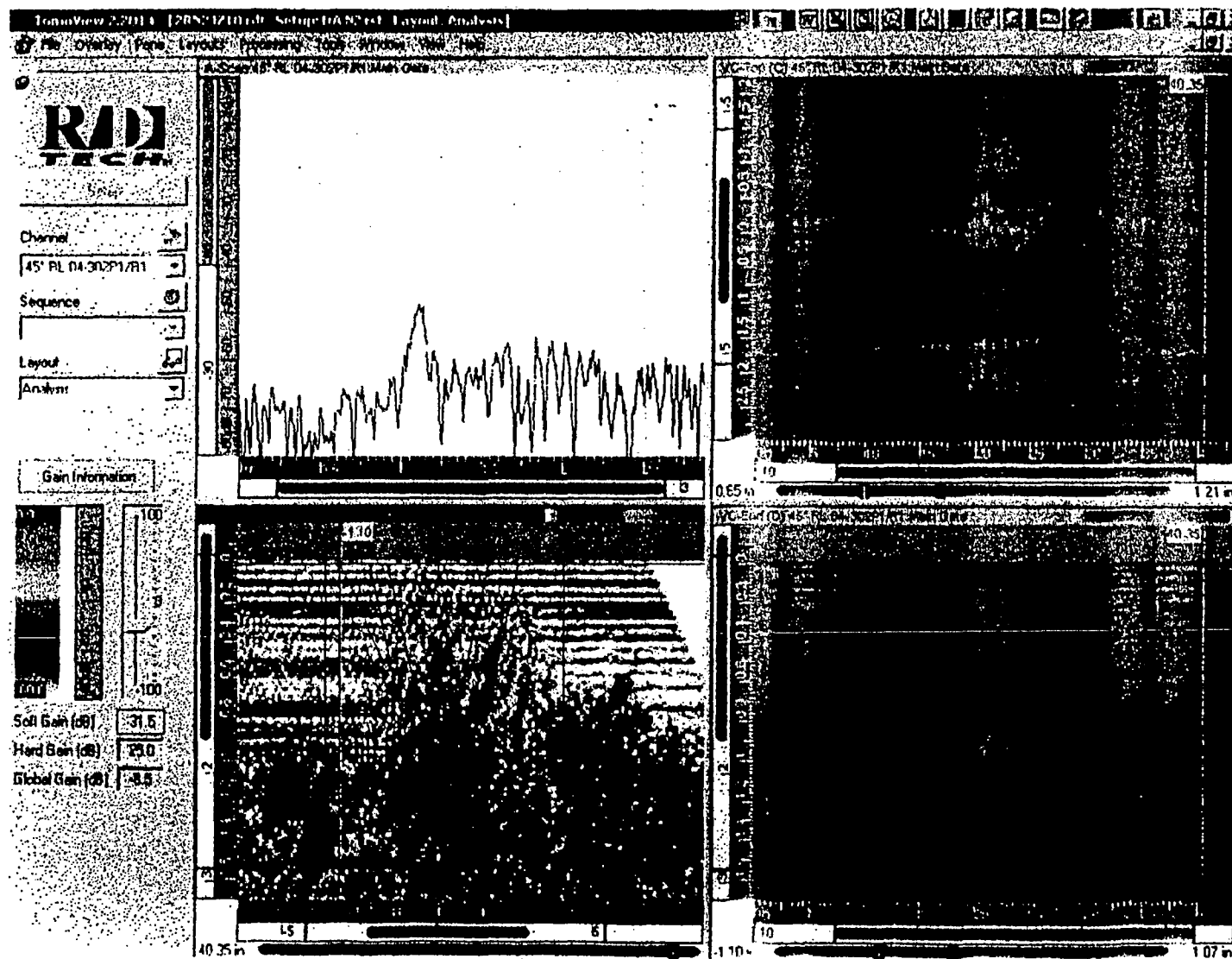
Date:

Page 167/240



N2J Safe End to Nozzle

45°RL LKDN Root Geometry

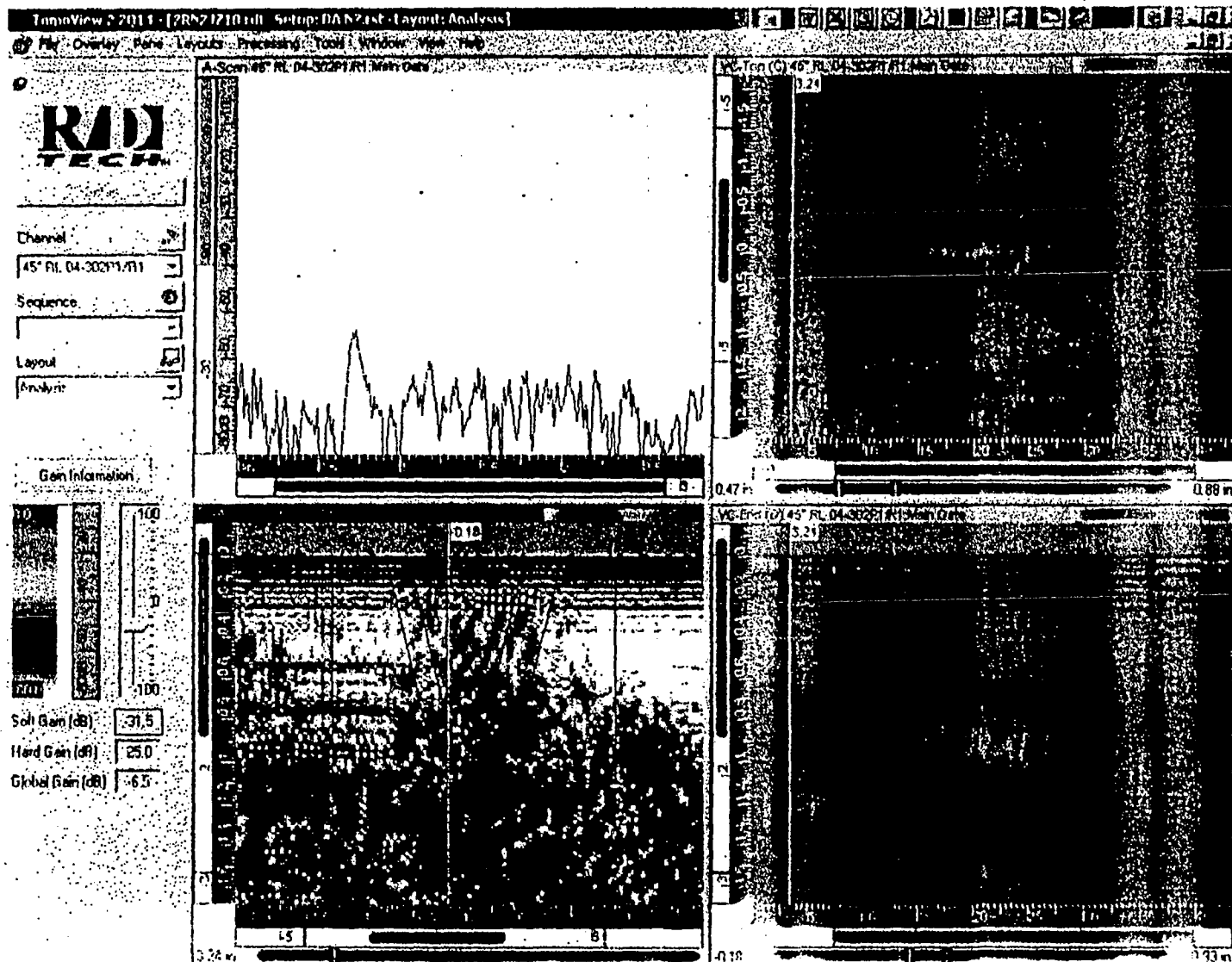


Page 168/240



N2J Safe End to Nozzle

45°RL LKDN Acoustic Interface



11/11/11 11:11:11

Page 169/240



GE Nuclear Energy

Ultrasonic Data / Scan Parameter Sheet  
(Automated with Micro TomoScan)

Site: <u>Pilaris Nuclear Power Station</u>	Procedure: <u>TP04-018 (GE-UT-209)</u>	System: <u>RPV</u>	Report No.: <u>APR-012</u>
Unit: <u>1</u>	Version / Revision: <u>R1 (V17)</u>	Weld No.: <u>2R-N2-L-1</u>	Data Sheet No.: <u>APD-008</u>
Project No.: <u>RF-015</u>	DRR: <u>N/A</u>	Configuration: <u>SAFE END TO NOZZLE</u>	Calibration Sheet No.

Scanner Information

Weld Reference, (GE-ADM-1005): Lo: <u>IDC</u>	Wo: <u>Weld Centerline</u>	Motor Steps: Cir: <u>2076</u>	Tra: <u>2500</u>
Examination Surface: <u>OD</u>	Exam Surface Temperature: <u>81</u> °F	Thermometer S/N: <u>241878</u>	Exam Start: <u>4/25/2005 11:30:00 PM</u>
			Exam End: <u>4/27/2005 11:07:00 AM</u>
Nominal Pipe Size: <u>12"</u>	Nominal Thickness: <u>1.10"</u>	Weld Width: <u>1.8"</u>	Weld Length: <u>42"</u>
Scanner: <u>NOVA</u>	Track Diameter: <u>16"</u>	Arm Length: <u>18"</u>	Track Location: <u>15.5" UPST FROM CS/INC INTERFACE</u>
		X Positive Scan Direction: <u>DOWNSTREAM</u>	Y Positive Scan Direction: <u>CW</u>
Resolution: <u>≤ 0.036"</u>	Index Ax / Circ: <u>≤ 0.18" ≤ 0.049"</u>	Axial Scan Speed: <u>≤ 2.0 in./Sec.</u>	Circ Scan Speed: <u>≤ 1.0 in./Sec.</u>
Scanner Zero Positions: CIR: <u>TOP DEAD CENTER</u>	TRA: <u>WELD CENTERLINE</u>	ROT Zero: <u>LOOKING DOWNSTREAM</u>	

Scan Parameters and Results

Scan:	Skew:	File ID:	Disk:	X-Start:	X-Stop:	Y-Start:	Y-Stop:	Gain:	Results:	Comments:
<u>Z10</u>	<u>0</u>	<u>2RN2JZ10</u>	<u>D-13</u>	<u>-4.1"</u>	<u>2.4"</u>	<u>0.0"</u>	<u>43.0"</u>	<u>Log</u>	<u>C.D.H.E</u>	<u>Uni-directional</u>
<u>Z20</u>	<u>180</u>	<u>2RN2JZ20</u>	<u>D-13</u>	<u>-2.4"</u>	<u>4.2"</u>	<u>0.0"</u>	<u>43.0"</u>	<u>Log</u>	<u>C.E</u>	<u>Uni-directional</u>
<u>Z30</u>	<u>0</u>	<u>2RN2JZ30</u>	<u>D-13</u>	<u>0.0"</u>	<u>43.0"</u>	<u>-2.7"</u>	<u>2.9"</u>	<u>Log</u>	<u>C.E</u>	<u>Uni-directional*</u>
<u>Z40</u>	<u>180</u>	<u>2RN2JZ40</u>	<u>D-13</u>	<u>0.0"</u>	<u>43.0"</u>	<u>-2.7"</u>	<u>2.9"</u>	<u>Log</u>	<u>C.E</u>	<u>Uni-directional*</u>

EXAMINATION RESULTS LEGEND

A - NO RECORDABLE INDICATIONS	B - NON-GEOMETRIC INDICATIONS	C - NON-RELEVANT INDICATIONS	D - ACOUSTIC INTERFACE
E - INSIDE SURFACE	F - OUTSIDE SURFACE	G - WELD DISCONTINUITY	H - ROOT GEOMETRY
I - COUNTERBORE	J - SHEAR COMPONENT	K - BEAM RE-DIRECT	

Comments:

\* Inside surface geometry outside the exam volume.  
LKDN limited from a 'L' of 13" to 30" on the upstream side of the weld centerline due to the OD contour.  
LKUP limited from a 'L' of 0" to 42.0" on the downstream side of the weld centerline due to the OD contour.

Richard Jaeken

Examiner:

11

Level: Date:

4/27/2005

GE Review

Level:

Date:

4-28-05

Utility Review:

Date:

4-29-05

ANII Review:

Date:

Page 1 of 13

Page 170/240



GE Energy, Nuclear

ULTRASONIC CALIBRATION DATA SHEET  
(Automated with Micro TomoScan)

Site Pilgrim Nuclear Power Unit 1 Project RF-015 Report Number APR-012  
Weld 2R-N2J-1 Calibration Sheet No. APC-065

Procedure No. TP04-016 (GE-UT-209) Version R1 (V17) DRP N/A

Instrument Zetec / uTomo System Serial No. 18121-09 Acquisition Software 2.2Q14 Analysis Software 2.2Q14  
Manufacturer / Model  
Pulser/Receiver R/D Tech EQTX-100 Pulser/Receiver R/D Tech EQTX 101 Digitizer: R/D Tech EQTX 098  
Main Board: Manufacturer / Model  
Search Unit RTD 03-341 ELI(24x17) mm 1.5 MHz 45°/S N/A 45° 0.52°  
Manufacturer Serial No. Element Size Freq. (MHz) Angle / Mode FD,FS/SA,RA Measured Angle Incident to Wedge Front  
Cable RG-58/RG-58/RG-174 250' / 25' / 3' 2  
Type Length No. of Intermediate Connectors  
Calibration Standard PIL-78 SS 1.3" 1.3"  
Serial No. Material Nominal Thickness Measured Thickness  
Thermometer 241878 75 °F Demin Water N/A  
Serial No. Temp (°F) Couplant Type Batch No.

**Calibration**  
Orientation Circ Circ  
Type ID Notch ID Notch  
Depth 1.30 in. 1.30 in.  
Amplitude / dB 85.4% -2.4 dB  
Sweep 1.91 in. 1.91 in.  
Gain (dB) 1.0 Log  
Screen Half Path 25 dB Booster Inactive

Field Simulator CS Rompac S/N CAL-RHOM-095

Reflector Far SDH  
Max Amplitude/dB -19.5 dB  
Sweep 1.01"  
Gain (dB) Log

**Calibration Verification**

	Time	Date	Block(s)	Operator
Initial	0847	4/11/2005	PIL 78	RJ
Verified	2214	4/25/2005	CAL-RHOM-095	KD
Verified	0142	4/26/2005	CAL-RHOM-095	KD
Verified				
Final	1106	4/27/2005	CAL-RHOM-095	RJ

Channel Name 03-341 45° Shear P2

**General**  
Timebase Start 0.0 in. Range 4.0 in.  
Units Half Path

**Digitizer**  
Synchro Pulse ☒ A Scan Sample Size 8 Bit  
Averaging 1 Acquisition Rate 301 Hz  
Digitizing Frequency 12.5 MHz Max Recurrence 2000 Hz

**Pulser / Receiver**  
Configuration Conventional Pulse Echo  
Pulser P2 Receiver N/A  
Voltage 300 V Scale Type LOG  
Width (Ns) 333 ns Rectification Unsigned  
Smoothing 2 MHz

**Probe**  
Wave Type Transverse Scan offset  
Velocity 0.1240 in./sec. Index offset  
Wedge Delay 11.778 usec. Angle 45°  
Skew 0/180

N2 - 45° Shear - Ax/Circ Scan  
Ax scan offset 0.0° Index Offset -2.6°  
Circ scan offset -2.60° Index Offset -2.7°

Richard Jasken II 4/27/2005  
Operator Level Date  
[Signature] II 4-28-05  
Analyst Level Date

Utility Review

ANIII Review

Level

Date

Page 8 of 13

Page 171/240



GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET (Automated with Micro TomoScan)

Site Pilgrim Nuclear Power Unit 1 Project RF-015 Report Number APR-012  
Weld 2R-N2J-1 Calibration Sheet No. APC-066

Procedure No. TP04-016 (GE-UT-209) Version R1 (V17) DRF N/A

Instrument Zetec / uTomo 18121-09 2.2014 2.2014  
Manufacturer / Model System Serial No. Acquisition Software Analysis Software  
Pulser/Receiver R/D Tech EQTX 100 Pulser/Receiver R/D Tech EQTX 101 Digitizer: R/D Tech EQTX 098  
Main Board: Manufacturer / Model Piggy Board: Manufacturer / Model  
Search Unit RTD 04-302 2(10x18) mm 2.0 MHz 45° / RL 1.00" 45° 0.55"  
Manufacturer Serial No. Element Size Freq. (MHz) Angle / Mode FD,FS/SA,RA Measured Incident to  
Cable RG-58/RG-58/RG-174 250' / 25' / 3' 2 Angle Wedge Front  
Type Length No. of Intermediate Connectors  
Calibration Standard PIL-78 SSANC 1.3" 1.3"  
Serial No. Material Nominal Thickness Measured Thickness  
Thermometer 241878 75 °F Demin Water N/A  
Serial No. Temp (°F) Couplant Type Batch No.

**Calibration**  
Orientation Circ Circ Circ  
Type ID Notch ID Notch ID Notch  
Depth 1.30 in. 1.30 in. 1.30 in.  
Amplitude / dB 82.4% -32.0 dB -7.2 dB  
Sweep 1.85 in. 1.85 in. 1.85 in.  
Gain (dB) 23.0 Log +25 Log  
Screen Half Path 25 dB Booster Active

Field Simulator CS Rompage S/N CAL-RHOM-095

Reflector Far SDH  
Max Amplitude/dB -5.3 dB  
Sweep 1.04"  
Gain (dB) Log

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	0900	4/11/2005	PIL 78	RJ
Verified	2216	4/25/2005	CAL-RHOM-095	KD
Verified				
Verified				
Final	0140	4/26/2005	CAL-RHOM-095	KD

Channel Name 45° RL 04-302 P1/R1

**General**  
Timebase Start 0.0 in. Range 4.0 in.  
Units Half Path

**Digitizer**  
Synchro Pulse ☒ A Scan Sample Size 8 Bk  
Averaging 1 Acquisition Rate 301 Hz  
Digitizing Frequency 12.5 MHz Max Recurrence 2000 Hz

**Pulser / Receiver**  
Configuration Conventional Pitch Catch  
Pulser P1 Receiver R1  
Voltage 300 V Scale Type LOG  
Width (Ns) 250 ns Rectification Unsigned  
Smoothing 2 MHz

**Probe**  
Wave Type Longitudinal Scan offset 0.00 in.  
Velocity 0.2272 in./sec. Index offset 0.00 in.  
Wedge Delay 9.675 usec. Angle 45°  
Skew 0/180

N2 - 45° RL - Ax Scan

Kyle Davidson I-L 4/26/2005  
Operator Level Date  
Analyst [Signature] TL 4-28-05  
Level Date

Utility Review

ANIII Review

[Signature] TL 4-29-05  
Level Date  
[Signature]  
Date

Page 2 of 13

Page 172/240



GE Energy, Nuclear

ULTRASONIC CALIBRATION DATA SHEET  
(Automated with Micro TomoScan)

Site Pilgrim Nuclear Power Unit 1

Project RF-015

Report Number APR-012

Calibration Sheet No. APC-067

Weld 2R-N2J-1

Procedure No. TP04-016 (GE-UT-209)

Version R1 (V17) DRR N/A

Instrument Zetec / uTomo  
Manufacturer / Model

18121-09  
System Serial No.

2.2Q14 2.2Q14  
Acquisition Software Analysis Software

Pulser/Receiver R/D Tech EQTX 100  
Main Board: Manufacturer / Model

Pulser/Receiver R/D Tech EQTX 101  
Piggy Board: Manufacturer / Model

Digitizer: R/D Tech EQTX 098  
Manufacturer / Model

Search Unit RTD 04-310  
Manufacturer Serial No.

2(10x18) mm  
Element Size

1.0 MHz 45° / RL  
Freq. (MHz) Angle / Mode

0.64"  
FD, FS/SA, RA

45° 0.55"  
Measured Angle Incident to Wedge Front

Cable RG-58/RG-58/RG-174  
Type

250' / 25' / 3'  
Length

2  
No. of Intermediate Connectors

Calibration Standard PIL-78  
Serial No.

SSINC  
Material

1.3"  
Nominal Thickness

1.3"  
Measured Thickness

Thermometer 241878  
Serial No.

75 °F  
Temp (°F)

Couplant

Demin Water  
Type

N/A  
Batch No.

Calibration

Orientation	<u>Circ</u>	<u>Circ</u>	<u>Circ</u>
Type	<u>ID Notch</u>	<u>ID Notch</u>	<u>ID Notch</u>
Depth	<u>1.30 in.</u>	<u>1.30 in.</u>	<u>1.30 in.</u>
Amplitude / dB	<u>83.9%</u>	<u>-46.4 dB</u>	<u>-23.5 dB</u>
Sweep	<u>1.85 in.</u>	<u>1.85 in.</u>	<u>1.85 in.</u>
Gain (dB)	<u>37</u>	<u>Log</u>	<u>+25 Log</u>
Screen	<u>Half Path</u>	<u>25 dB Booster</u>	<u>Active</u>

Channel Name 45° RL 04-310 P1/R1

General

Timebase Start 0.0 in. Range 4.0 in.  
Units Half Path

Digitizer

Synchro Pulse ☒ A Scan Sample Size 8 Bk  
Averaging 1 Acquisition Rate 301 Hz  
Digitizing Frequency 6.25 MHz Max Recurrence 2000 Hz

Pulser / Receiver

Configuration Conventional Pitch Catch  
Pulser P1 Receiver R1  
Voltage 300 V Scale Type LOG  
Width (Ns) 500 ns Rectification Unsigned  
Smoothing 1 MHz

Probe

Wave Type Longitudinal Scan offset 0.00 in.  
Velocity 0.2272 in./sec. Index offset -2.70 in.  
Wedge Delay 11.170 usec. Angle 45°  
Skew 0/180

N2 - 45° RL - Circ Scan

Field Simulator CS Rompes S/N CAL-RHOM-095

Reflector Far SDH  
Max Amplitude/dB -17.3 dB  
Sweep 1.0"  
Gain (dB) + Log

Calibration Verification

	Time	Date	Block(s)	Operator
Initial	<u>0708</u>	<u>4/23/2005</u>	<u>PIL 78</u>	<u>RJ</u>
Verified	<u>2212</u>	<u>4/25/2005</u>	<u>CAL-RHOM-095</u>	<u>KD</u>
Verified				
Verified				
Final	<u>1105</u>	<u>4/27/2005</u>	<u>CAL-RHOM-095</u>	<u>RJ</u>

Richard Jasken II 4/27/2005  
Operator Level Date  
[Signature] IL 4-28-05  
Analyst Level Date

Utility Review

ANIII Review

Level

Date

Date

Page 10 of 13

Page 173/240



GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET (Automated with Micro TomoScan)

Site Pilgrim Nuclear Power

Unit 1

Project RF-015

Report Number APR-012

Calibration Sheet No. APC-068

Weld 2R-N2J-1

Procedure No. TP04-016 (GE-UT-209)

Version R1 (V17) DRF N/A

Instrument Zetec / uTomo  
Manufacturer / Model

18121-09  
System Serial No.

2.2Q14 2.2Q14  
Acquisition Software Analysis Software

Pulser/Receiver R/D Tech EQTX 100  
Main Board: Manufacturer / Model

Pulser/Receiver R/D Tech EQTX 101  
Piggy Board: Manufacturer / Model

Digitizer: R/D Tech EQTX 098  
Manufacturer / Model

Search Unit RTD 04-305  
Manufacturer Serial No.

2(10x18) mm  
Element Size

2.0 MHz 60° / RL  
Freq. (MHz) Angle / Mode

0.77°  
FD,FS/SA,RA

61° 0.52°  
Measured Incident to  
Angle Wedge Front

Cable RG-58/RG-58/RG-174  
Type

250' / 25' / 3'  
Length

2  
No. of Intermediate Connectors

Calibration Standard CAL-DPTH-063  
Serial No.

SS  
Material

0.8"  
Nominal Thickness

0.8"  
Measured Thickness

Thermometer 241878  
Serial No.

75 °F  
Temp (°F)

Demin Water  
Couplant

N/A  
Type

N/A  
Batch No.

## Calibration

Orientation	<u>Circ</u>	<u>Circ</u>	<u>Circ</u>
Type	<u>SDH</u>	<u>SDH</u>	<u>SDH</u>
Depth	<u>0.80 in.</u>	<u>0.80 in.</u>	<u>0.80 in.</u>
Amplitude / dB	<u>81.5%</u>	<u>-33.9 dB</u>	<u>-9.4 dB</u>
Sweep	<u>1.65 in.</u>	<u>1.65 in.</u>	<u>1.65 in.</u>
Gain (dB)	<u>24</u>	<u>Log</u>	<u>+25 Log</u>
Screen	<u>Half Path</u>	25 dB Booster	<u>Active</u>

Channel Name 60° RL 04-305 P3 / R3

## General

Timebase Start 0.0 in. Range 5.5 in.  
Units Half Path

## Digitizer

Synchro Pulse ☒ A Scan Sample Size 8 Bit  
Averaging 1 Acquisition Rate 301 Hz  
Digitizing Frequency 12.5 MHz Max Recurrence 2000 Hz

## Pulser / Receiver

Configuration Conventional Pitch Catch  
Pulser P3 Receiver R3  
Voltage 300 V Scale Type LOG  
Width (Ns) 250 ns Rectification Unsigned  
Smoothing 2 MHz

## Probe

Wave Type Longitudinal Scan offset 0.00 in.  
Velocity 0.2272 in./sec. Index offset -5.20 in.  
Wedge Delay 10.640 usec. Angle 60°  
Skew 0/180

N2 - 60° RL - Ax Scan

Field Simulator CS Rompas S/N CAL-RHOM-095

Reflector Far SDH

Max Amplitude/dB -7.2 dB

Sweep 1.55"

Gain (dB) + Log

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	<u>0920</u>	<u>4/11/2005</u>	<u>CAL-DPTH-063</u>	<u>RJ</u>
Verified	<u>2218</u>	<u>4/25/2005</u>	<u>CAL-RHOM-095</u>	<u>KD</u>
Verified				
Verified				
Final	<u>0150</u>	<u>4/26/2005</u>	<u>CAL-RHOM-095</u>	<u>KD</u>

Kyle Davidson I-L 4/26/2005

Operator Level Date

Level 4-28-05

Analyst Level Date

Utility Review

ANIII Review

Level 4-29-05

Level Date

Level Date

Page 11 of 13

Page 174/240





GE Energy, Nuclear

# ULTRASONIC CALIBRATION DATA SHEET (Automated with Micro TomoScan)

Site Pilgrim Nuclear Power Unit 1 Project RF-015 Report Number APR-012  
Weld 2R-N2J-1 Calibration Sheet No. APC-069

Procedure No. TPM-016 (GE-UT-209) Version R1 (V17) DRR N/A

Instrument	<u>Zetec / uTomo</u>		<u>18121-09</u>		<u>2.2Q14</u>		<u>2.2Q14</u>	
	Manufacturer / Model		System Serial No.		Acquisition Software		Analysis Software	
Pulser/Receiver	<u>R/D Tech EQTX 100</u>		<u>R/D Tech EQTX 101</u>		Digitizer:		<u>R/D Tech EQTX 098</u>	
Main Board:	Manufacturer / Model		Manufacturer / Model		Manufacturer / Model		Manufacturer / Model	
Search Unit	<u>RTD</u>	<u>00-349</u>	<u>2(10x18) mm</u>	<u>1.0 MHz</u>	<u>60° / RL</u>	<u>0.59°</u>	<u>60°</u>	<u>0.50°</u>
	Manufacturer	Serial No.	Element Size	Freq. (MHz)	Angle / Mode	FD,FS/SA,RA	Measured Angle	Incident to Wedge Front
Cable	<u>RG-58/RG-58/RG-174</u>		<u>250' / 25' / 3'</u>	<u>2</u>				
	Type		Length	No. of Intermediate Connectors				
Calibration Standard	<u>CAL-DPTH-063</u>		<u>SS</u>	<u>0.6"</u>		<u>0.6"</u>		
	Serial No.		Material	Nominal Thickness		Measured Thickness		
Thermometer	<u>24187F</u>	<u>75 °F</u>	Couplant	<u>Demin Water</u>		<u>N/A</u>		
	Serial No.	Temp (°F)	Type	Batch No.				

Calibration			
Orientation	<u>Circ</u>	<u>Circ</u>	<u>Circ</u>
Type	<u>SDH</u>	<u>SDH</u>	<u>SDH</u>
Depth	<u>0.60 in.</u>	<u>0.60 in.</u>	<u>0.60 in.</u>
Amplitude / dB	<u>84.3%</u>	<u>-42.0 dB</u>	<u>-18.8 dB</u>
Sweep	<u>1.18 in.</u>	<u>1.18 in.</u>	<u>1.18 in.</u>
Gain (dB)	<u>32</u>	<u>Log</u>	<u>+25 Log</u>
Screen	<u>Half Path</u>	<u>25 dB Booster</u>	<u>Active</u>

Field Simulator CS Rompas S/N CAL-RHOM-095

Reflector	<u>Near SDH</u>	<u>N/A</u>
Max Amplitude/dB	<u>-18.8 dB</u>	<u>N/A</u>
Sweep	<u>0.78"</u>	<u>N/A</u>
Gain (dB)	<u>+ Log</u>	<u>N/A</u>

## Calibration Verification

	Time	Date	Block(s)	Operator
Initial	<u>0733</u>	<u>4/23/2005</u>	<u>CAL-DPTH-063</u>	<u>RJ</u>
Verified	<u>0155</u>	<u>4/26/2005</u>	<u>CAL-RHOM-095</u>	<u>KD</u>
Verified				
Verified				
Final	<u>1107</u>	<u>4/27/2005</u>	<u>CAL-RHOM-095</u>	<u>RJ</u>

Channel Name 60° RL 00-349 P3 / R3

General		
Timebase	Start	<u>0.0 in.</u>
Units	Range	<u>5.5 in.</u>
		<u>Half Path</u>

Digitizer			
Synchro	<u>Pulse</u>	<input checked="" type="checkbox"/> A Scan	Sample Size <u>8 Bk</u>
Averaging	<u>1</u>	Acquisition Rate	<u>301 Hz</u>
Digitizing Frequency	<u>6.25 MHz</u>	Max Recurrence	<u>2000 Hz</u>

Pulser / Receiver			
Configuration	<u>Conventional Pitch Catch</u>		
Pulser	<u>P3</u>	Receiver	<u>R3</u>
Voltage	<u>300 V</u>	Scale Type	<u>LOG</u>
Width (Ns)	<u>500 ns</u>	Rectification	<u>Unsigned</u>
		Smoothing	<u>1 MHz</u>

Probe		
Wave Type	<u>Longitudinal</u>	Scan offset <u>-5.20 in.</u>
Velocity	<u>0.2272 in./sec.</u>	Index offset <u>-2.70 in.</u>
Wedge Delay	<u>10.240 usec.</u>	Angle <u>60°</u>
		Skew <u>0/180</u>

N2 - 60° RL - Circ Scan

Richard Jasken	II	4/27/2005
Operator	Level	Date
<u>[Signature]</u>	<u>TL</u>	<u>4-28-05</u>
Analyst	Level	Date

Utility Review

ANIII Review

Level

Date

Page 12 of 13

Page 175/240



GE Energy Nuclear

## Micro-Tomo (Smart 2000) - Auto Piping Weld Examination Checklist

Pilgrim Unit 1, 2005  
2R-N2J

<b>2R2JZ10 LKDN</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	NOTES:
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW	MW	MJK	MJK	MJK	
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
<b>2R2JZ20 LKUP</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	NOTES:
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW	MW	MJK	MJK	MJK	
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
<b>2R2JZ30 LKCW</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	NOTES:
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SG	SG	MJK	MJK	MJK	
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
<b>2R2JZ40 LKCCW</b>	Load appropriate setup	Offsets entered into TV correctly	Transducers Skewed IAW Procedure	Files named IAW Scanplan	360° contact achieved	360° Circ coverage achieved	Full Volume Ax Coverage Achieved	Scan saved to computer HD Verified readable	Data transferred to DA Verified received by DA	Data Reviewed	Analysis Complete	Package Complete	NOTES:
45° Shear	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SG	SG	MJK	MJK	MJK	
45° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	
60° RL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			MJK	MJK	MJK	

**Notes:** Transducer liftoff due to the outside surface contour. See the data sheet for parameters

Page 176/240

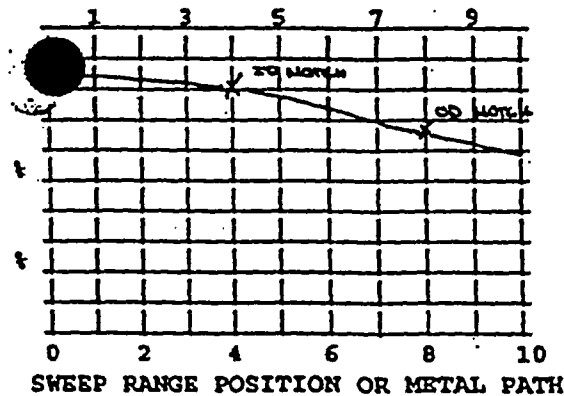
*Handwritten signature and date: 4-29-05*

UT CALIBRATION DATA SHEET

C.D.S. NO. 99-C-547  
U.T.V. NO. 0027A  
L.D.S. NO. 99-L-351

PROCEDURE NO. QCI 50-71 REV. 4 DATE 5/22/99  
EXAMINATION PERSONNEL: NAME Paul V. Kelly LEVEL II NAME Timothy A. Level II  
INSTRUMENT DATA: MAKE STANLEY MODEL 5000 136 SERIAL NO. 136-545 G  
ARCH UNIT DATA: MANUFACTURER KBA TYPE M2WGL GAMMA  
SERIAL NO. 002444 SIZE .50" FREQUENCY 225 MHz  
BEAM ANGLE 45° BEAM MODE 6WEP WEDGE TYPE LUCITE  
ABLE DATA: LENGTH 6' TYPE 26-17A  
XPLANT DATA: TYPE ULTRASONIC II BATCH NO. 98225  
LIBRATION STANDARD DATA: SERIAL NO. PW-17A THICKNESS 1.0" DIAMETER 12"  
MATERIAL CS SA-106 GR. B  
LIBRATION REFLECTOR(S) DATA: TYPE Notch SIZE .100d x .125w x 1.0L  
ORIENTATION (TO PIPE AXIS) Line  
OR DUAL ELEMENT TRANSDUCERS: SPLIT ORIENTATION (TO HOLE CENTERLINE) FOR  
MAXIMUM RESPONSE  
PARALLEL AMPLITUDE 3/4 TRANSVERSE AMPLITUDE N/A

C CURVE-SCREEN REPRESENTATION



CALIBRATION TIME - RECORDS

00	01	02	03	04	05
ORIG.	CAL.	LAST	LAST	VERIFY	
DATE	CAL.	CHECK - E.D.S.	E.D.S.	25°F LIMIT	
TIME	TIME	#	LINE #	YES/NO	
<u>5/22/99</u>	<u>1100</u>	<u>1535</u>	<u>99-E-548 (4)</u>	<u>pg 2</u>	<u>466</u>

I.D. OF WELD/COMPONENT

G-N4A-1  
G-N4B-1  
G-N4C-1  
G-N4D-1

SWEEP RANGE POSITION OR METAL PATH

FD 27.0 40.0 32.0 dB  
OD 62.0 20.0 32.0 dB  
REFERENCE GAIN 33.0 dB  
SCANNING GAIN 46.0 dB

REVIEWED BY: Chip Shaver L. III DATE 5/25/99  
DATA REVIEWER

ASME SECTION XI EXAMINATION: X YES - ANII SIGNATURE REQUIRED  
\_\_\_\_ NO - ANII SIGNATURE NOT REQUIRED

ACCEPTED BY: B. Perkins DATE 5/26/99  
BECO LEVEL III OR DESIGNER

REVIEWED BY: Phyler DATE 5-26-99  
ANII

**BOSTON EDISON COMPANY  
ULTRASONIC EXAMINATION DATA SHEET**

**EXAMINATION PERSONNEL:**

Name Paul Level II

Name Samir N. S. Level II

Beam Angle 45°

M. R. No. 19702057  
Couplant ULTRACEL II 98325  
Scanning Gain 46.0dB

Exam proc. 5011 Rev. 4

EDS No. 99-E-548  
CDS No. 99-C-547  
L.D.S. 99-L-351  
UTV No. 0027A  
DATE 5/22/99

(W) DIMENSION (L) DIMENSION

WELD COMP#	CONFIG	IND #	SCAN NO. DIRECTION & SURFACE	MAX. AMP.	LO WO	W <sub>m</sub> SP <sub>m</sub>	L <sub>1</sub> SP <sub>L1</sub>	L <sub>m</sub>	L <sub>2</sub> SP <sub>L2</sub>	TIME OF EXAM START STOP	COMP. TEMP.	REMARKS
6-N4A-1	SE-NO2	N/A	I/+/-							1337 1342	78°F	N21
6-N4A-1	SE-NO2	N/A	I/-/+			N				1342 1347	78°F	N21
6-N4B-1	SE-NO2	N/A	I/+/-				A			1245 1250	78°F	N21
6-N4B-1	SE-NO2	N/A	I/-/+				I			1250 1255	78°F	N21
	N	A			N			A		N	A	

Components meet ASME Section XI Acceptance Criteria:

ASME Section XI Examination:

YES ☐ NO ☒ → FURTHER EVALUATION REQUIRED ☒

X YES-ANII Signature Required  
NO-ANII Signature Not Required

REMARKS: 1) LIMITED EXAMINATION BETWEEN 26.625" TO 29.625" AND  
31.875" TO 34.625" DUE TO THERMAL COUPLER PROBS ON WELDS

Evaluated By: P. Hasei Level III Date 5/25/99

Accepted By: B. P. S. Level III Date 5/26/99  
BeCo Level III or Designee

ANII Review By: P. Hasei Date 5-26-99

8092 178/240

**BOSTON EDISON COMPANY  
ULTRASONIC EXAMINATION DATA SHEET**

**EXAMINATION PERSONNEL:**

Name Robert Level II  
Name Samir Maso Level II

M. R. No. 9702057  
Couplant Ultrasonic II 58325  
Scanning Gain 450dB

Exam proc. 50-71 Rev. 4

EDS No. 99-E-548  
CDS No. 99-C-547  
L.D.S. 99-L-351  
UTV No. 0021A  
DATE 5/12/99

Beam Angle 45°

(W) DIMENSION (L) DIMENSION

WELD COMP#	CONFIG	IND #	SCAN NO. DIRECTION & SURFACE	MAX. AMP.	LO WO	W <sub>m</sub> SP <sub>m</sub>	L <sub>1</sub> SP <sub>L1</sub>	L <sub>2</sub>	L <sub>2</sub> SP <sub>L2</sub>	TIME OF EXAM START STOP	COMP. TEMP.	REMARKS
6-N4C-1	6E-N02	N/A	I/+/-							1310 1315	78°F	A) u21
6-N4C-1	6E-N02	N/A	I/-/+							1315 1320	78°F	A) u21
6-N4D-1	6E-N02	N/A	I/+/-							1402 1407	78°F	u21
6-N4D-1	6F-N02	N/A	I/-/+							1407 1412	78°F	u21

Components meet ASME Section XI Acceptance Criteria:

YES ☐ NO ☒ → FURTHER EVALUATION REQUIRED ☐

ASME Section XI Examination:

X YES-ANII Signature Required  
NO-ANII Signature Not Required

REMARKS: LIMITED EXAMINATION BETWEEN 26.75" TO 29.75" AND  
31.75" TO 33.75" DUE TO THERMAL COUPLER PADS ON WELD.

Evaluated By: D. Thomas Level III Date 5/25/99

Accepted By: B. P. H. Level III Date 5/26/99  
BeCo Level III or Designee

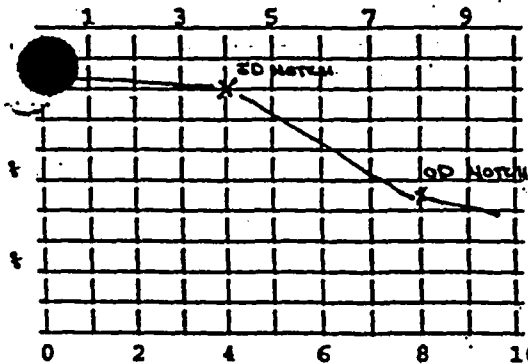
ANII Review By: V. J. R. Date 5-26-99

UT CALIBRATION DATA SHEET

C.D.S. NO. 99-C-549  
U.T.V. NO. 0037A  
L.D.S. NO. 99-L-351

PROCEDURE NO. CGI 50.71 REV. 4 DATE 5/22/99  
EXAMINATION PERSONNEL: NAME D. Valentin LEVEL II NAME John Mark LEVEL IV  
INSTRUMENT DATA: MAKE STANLEY MODEL 6mm 126 SERIAL NO. 126-5496  
ARCH UNIT DATA: MANUFACTURER KBA TYPE M400C GAMMA  
SERIAL NO. 002W42 SIZE .60" FREQUENCY 2.25 MHz  
BEAM ANGLE 60° BEAM MODE SWEEP WEDGE TYPE LUCITE  
ABLE DATA: LENGTH 12' TYPE D4-174  
UPLANT DATA: TYPE ULTRASOUND BATCH NO. 98325  
LIBRATION STANDARD DATA: SERIAL NO. PL-17A THICKNESS 1.00 DIAMETER 12"  
MATERIAL C6 SA-106 GR. B  
LIBRATION REFLECTOR(S) DATA: TYPE Normal SIZE 100' d x 125' w x 10' l  
ORIENTATION (TO PIPE AXIS) Circ  
OR DUAL ELEMENT TRANSDUCERS: SPLIT ORIENTATION (TO HOLE CENTERLINE) FOR  
MAXIMUM RESPONSE  
PARALLEL AMPLITUDE N/A TRANSVERSE AMPLITUDE N/A

C CURVE-SCREEN REPRESENTATION



SWEEP RANGE POSITION OR METAL PATH

TOE 30Z 402512dB  
ODE 44Z 302512dB  
DEFE 25Z 6W 612dB  
SCANNING GAIN 60.0dB

REVIEWED BY: Philip Martin Lu III DATE 5/25/99  
DATA REVIEWER

ASME SECTION XI EXAMINATION; X YES - ANII SIGNATURE REQUIRED  
NO - ANII SIGNATURE NOT REQUIRED

ACCEPTED BY: B. Perkins DATE 5/26/99  
BECO LEVEL III OR DESIGNEE

REVIEWED BY: Vhyat DATE 5-26-99  
ANII

CALIBRATION TIME - RECORDS

00	01	02	03	04	05
ORIG.	CAL.	LAST	LAST	VERIFY	
DATE	CAL.	CHECK	E.D.S.	E.D.S.	25°F LIMIT
TIME	TIME	#	LINE #	YES/NO	
<u>5/22/99</u>	<u>1055</u>	<u>1838</u>	<u>99-E-550(4)</u>	<u>pg 2</u>	<u>YES</u>

I.D. OF WELD/COMPONENT

6-N4A-1  
6-N4B-1  
6-N4C-1  
6-N4E-1  
Dish

**BOSTON EDISON COMPANY  
ULTRASONIC EXAMINATION DATA SHEET**

**EXAMINATION PERSONNEL:**

Name *[Signature]* Level II

Name *Fami Masa* Level IV

Beam Angle 60°

M. R. No. 19702057  
Couplant Ultrasol II 98325  
Scanning Gain 600

(W) DIMENSION (L) DIMENSION

Exam proc. 50.11 Rev. 4

EDS No. 99-E-550  
CDS No. 99-C-549  
L.D.S. 99-L-351  
UTV No. 6027A  
DATE 5/22/99

WELD COMP#	CONFIG	IND #	SCAN NO. DIRECTION & SURFACE	MAX. AMP.	LO WO	W <sub>m</sub> SP <sub>m</sub>	L <sub>1</sub> SP <sub>L1</sub>	L <sub>m</sub>	L <sub>2</sub> SP <sub>L2</sub>	TIME OF EXAM START STOP	COMP. TEMP.	REMARKS
G-N4A-1	SE-N02	N/A	I/+/-							1347 1353	78°F	N21
G-N4A-1	SE-N02	N/A	I/-/+			N				1353 1359	78°F	N21
G-N4B-1	SE-N02	N/A	I/+/-				A			1255 1301	78°F	A
G-N4B-1	SE-N02	N/A	I/-/+				I			1301 1307	78°F	A
	N	A				N	A			N	A	

Components meet ASME Section XI Acceptance Criteria: YES

ASME Section XI Examination:

YES ☐ NO ☒ → FURTHER EVALUATION REQUIRED ☐

X YES-ANII Signature Required  
\_\_\_\_ NO-ANII Signature Not Required

REMARKS: A) LIMITED EXAMINATION BETWEEN 24.875" TO 29.625" FROM 31.875" TO 34.625" DUE TO THERMO COUPLER PASS OUT WELD

Evaluated By: *[Signature]* Level III Date 5/25/99

Accepted By: *[Signature]* Level III Date 5/26/99  
BeCo Level III or Designee

ANII Review By: *[Signature]* Date 5-16-99

**BOSTON EDISON COMPANY  
ULTRASONIC EXAMINATION DATA SHEET**

**EXAMINATION PERSONNEL:**

Name Paul Walden Level II

Name Samir Masad Level II

Beam Angle 60°

M. R. No. 19702057  
Couplant Ultasonic II 98325  
Scanning Gain 60.0

Exam proc. 5071 Rev. 4

EDS No. 99-E-550  
CDS No. 99-C-549  
L.D.S. 99-L-351  
UTV No. 00274  
DATE 5/26/99

(W) DIMENSION (L) DIMENSION

WELD COMP#	CONFIG	IND #	SCAN NO. DIRECTION & SURFACE	MAX. AMP.	LO WO	W <sub>m</sub> SP <sub>m</sub>	L <sub>1</sub> SP <sub>L1</sub>	L <sub>2</sub>	L <sub>2</sub> SP <sub>L2</sub>	TIME OF EXAM START STOP	COMP. TEMP.	REMARKS
G-N46-1	SE-N02	N/A	I/+/-							1320 1326	78°F	N) NR1
G-N46-1	SE-N02	N/A	I/-/+				N			1326 1332	78°F	N) NR1
G-N40-1	SE-N02	N/A	I/+/-				A			1412 1418	78°F	NR1
G-N40-1	SE-N02	N/A	I/-/+							1418 1424	78°F	NR1
		N	A			N	A					

Components meet ASME Section XI Acceptance Criteria:

YES ☐ NO ☒ FURTHER EVALUATION REQUIRED ☐

REMARKS: A) LIMITED EXAMINATION BETWEEN 24.75" TO 29.75" AND  
31.75" TO 33.75" DUE TO TIGER CAUSE PRO ON WELD

ASME Section XI Examination:

X YES-ANII Signature Required  
NO-ANII Signature Not Required

Evaluated By: P. Walden Level III Date 5/26/99

Accepted By: B. Paul Level III Date 5/26/99  
BeCo Level III or Designee

ANII Review By: 1/1/99 Date 5-26-99

Page 182/240



BOSTON EDISON COMPANY RECORD OF MAGNETIC PARTICLE EXAMINATION				DATA SHEET # <b>97-M-119</b>	
ITEM ID/PIECE # <b>RPV-5BW-0</b>		SYSTEM <u>54</u> LOCATION <u>DAYWELL</u>		MR # <u>19600304</u>	ISO/DWG NUMBER <u>ISI-1-54-1</u>
A. MATERIAL		TYPE <u>C.S.</u>			
CROSS SECTION THICKNESS	MAX	MIN	PIPE PLATE ROD OTHER GEOMETRY <u>      </u> <u>X</u> <u>      </u> <u>      </u>		
FABRICATION PROCESS		CAST WORKED <u>WELDED</u> OTHER <u>      </u>			
SURFACE	MACHINED GROUND <u>AS FABRICATED</u> OTHER <u>      </u>		INSPECTION HOLD PT <u>FINAL ISI</u>		
SURFACE IS SUITABLE FOR SCHEDULED <u>X</u> MT <u>N/A</u> AUT EXAMINATION. <u>YES</u> /NO					
SKETCH OR OTHER DETAIL ATTACHED YES <u>NO</u>				WEIGHT <u>X</u> 10 LB. <u>      </u> 40 LB	
B.	PROCEDURE # VALIDATION # POLE SPACING	<u>QCI 50.20</u> <u>N/A</u> <u>6" MAX</u>		EQUIPMENT IDENTIFICATION <u>X</u> AC <u>      </u> HWAC <u>SIN 5156</u>	
C. EVALUATION					
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT, REWORK, REJECT AND COMMENT AS NECESSARY.)		
1		<u>NRI - ACCEPT</u>	<u>EXAMINED 12" OF TOP SURFACE</u>		
2					
3					
4					
5					
6					
7					
D. CRITERIA		<u>ASME SECT. XI 1989</u>			
E. ATTEST		COMPONENTS <u>MEET</u> /DO NOT MEET ASME SECTION XI ACCEPTANCE CRITERIA, FURTHER EVALUATION REQUIRED. <u>      </u> YES <u>X</u> NO			
		<u>DM. Wood</u> <u>II</u> <u>3/5/97</u> RESPONSIBLE CERTIFIED PERSONNEL LEVEL DATE REVIEWED BY: <u>Michael</u> <u>IV III</u> <u>3/5/97</u>			
		<u>B. Perkins</u> <u>3/5/97</u> <u>ANII</u> <u>3/6/97</u> BECO LEVEL III DATE ANII DATE			



# Calibration Data Sheet

CDS No: 05-C-450  
LDS No: 05-L-422-151  
Page: 1 of 1

Plant/Unit: PILGRIM STATION  
System: RNR A  
Component: 10-1A-15 / 10-1A-14  
Line No.: "18-DCA-10  
Procedure: END-NDE 9.23 Rev.: 0  
Thermometer SN: 230  
Cal. Blk Temp.: 64 Comp Temp.: 75  
Cal. Block No.: DIL 23A  
☐ Carbon Steel ☒ Stainless Steel  
Size: 18 Sch.: .755

Cal Direction ☐ Axial ☐ Circ ☒ Both

Scan Area ☒  $\perp$  to weld

Scan Area ☐  $\parallel$  to weld

Work Order: 03116631  
DWG No.: ISI-I-1-10

Cal Checks	Time
Initial Cal.:	<u>1104 / 1105</u>
Date:	<u>4/29/05</u>
Inter. Cal.:	
Date:	
Inter. Cal.:	
Date:	
Final Cal.:	<u>1752 / 1753</u>
Date:	<u>4/29/05</u>

Couplant

Type: ULTRAGEL II  
Batch: 01225

Examination Area / Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom.	
<u>10-1A-14</u>	<u>SINGLE SIDE</u>	<u>N/A</u>	<u>X</u>	<u>NO</u>	<u>37.6</u> <u>72.8</u>
<u>10-1A-15</u>	<u>SINGLE SIDE</u>	<u>N/A</u>	<u>X</u>	<u>NO</u>	<u>37.6</u> <u>72.8</u>

Remarks

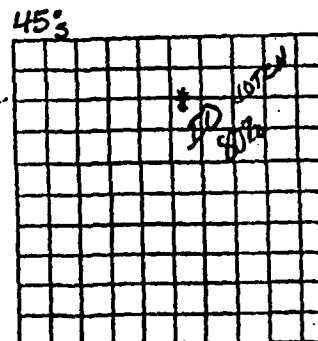
Further Evaluation Required: ☐ Yes ☒ No

Examiner: [Signature] Level: II Date: 4/30/05

Examiner: [Signature] Level:  Date:

Reviewer: [Signature] Level: III Date: 4/30/05

ANII: [Signature] Date: 5/1/05



Search Unit # 1

Manufacturer: KBA  
Model: Comp-6  
Serial No.: 0075C4  
Size: .375 Shape: Round  
Freq.: 15 # Elm: 1  
Angle: 45 Mode: SIGNAL  
Measured Angle: 45°  
Wedge Style: MSWPC

Search Unit Cable

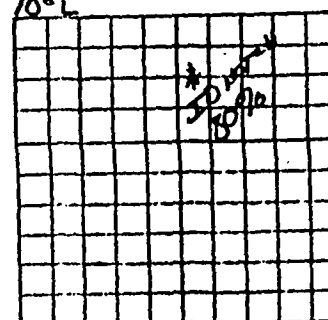
Type: RG-174  
Length: 6.0' # Con.: 0

Instrument Settings

Manufacturer: STAVELEY  
Model: Sonic 136  
Serial No.: 136P1200404457  
Linearity Due: 5/2/05  
Delay: 1.283 Range: 2.0  
Mtl. Vel.: 123 Pulsar: 334  
Damping: 500 Reject: OFF  
Rep Rate: 4K Freq.: 2.25  
Filter: 2 Mode: P/E

Reference Sensitivity

Axial: 29.6 Circ: 29.6



Search Unit # 2

Manufacturer: RTD  
Model: TRL2  
Serial No.: 00-727  
Size: 2(8x14) Shape: SP  
Freq.: 2 # Elm: 2  
Angle: 70 Mode: LONG  
Measured Angle: 70

Wedge Style: INTENSAL

Search Unit Cable

Type: RG-174  
Length: 6.0' # Con.: 0

Instrument Settings

Manufacturer: STAVELEY  
Model: Sonic 136  
Serial No.: 136P1200404457  
Linearity Due: 5/2/05  
Delay: .943 Range: 4.0  
Mtl. Vel.: 230 Pulsar: 250  
Damping: 500 Reject: OFF  
Rep Rate: 4K Freq.: 2.25  
Filter: 2 Mode: DUAL

Reference Sensitivity

Axial: 70.8 Circ: N/A

Page 184/240





# Sketch Sheet

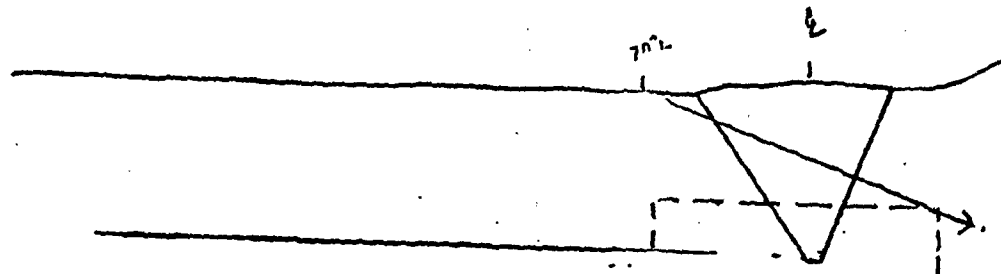
Data Sheet No: 05-E-451-151

Page: 2 of 2

Plant/Unit: <u>PILGRIM STATION</u>	System: <u>RHR A</u>	Component: <u>10-1A-14</u>	Procedure: <u>END-NDE-9.25</u>
Examination Area / Weld No.: <u>10-1A-14</u>	DWG No.: <u>10-1 <sup>Weld</sup> <del>10</del> <sub>10-1</sub></u>	Line No.: <u>18"-OCA-10</u>	Revision: <u>0</u>
			Work Order: <u>03116631</u>

PIPE

FLUED HEAD  
X51A



1 FLOW

Examiner: <u>[Signature]</u>	Level: <u>II</u>	Date: <u>4/30/05</u>	Examiner: <u>N/A</u>	Level: <u></u>	Date: <u></u>
Reviewer: <u>[Signature]</u>	Level: <u>III</u>	Date: <u>4/30/05</u>	ANII: <u>[Signature]</u>	Date: <u>5/1/05</u>	



**Entergy**

# Examination Data Sheet

EDS No: 05-6-452-151

CDS No: 05-C-450-151

LDS No: 05-6-422-151

Page 1 of 2

Plant/Unit: <u>PILGRIM STATION</u>			System: <u>RHR -A</u>			Component: <u>10-1A-15</u>			Procedure: <u>END-NDE 923</u>		
Work Order: <u>03116631</u>			DWG No.: <u>ISI-I-10-17ms</u> <u>10-17ms</u>			<input type="checkbox"/> Carbon Steel <input checked="" type="checkbox"/> Stainless Steel			Revision: <u>0</u>		
Examination Area / Weld No.: <u>10-1A-15</u>			Line No.: <u>18"-DCA-10</u>			Size: <u>18"</u> Schedule: <u>.755</u>			Start Time/Date: <u>1416 4/30/05</u> Finish Time/Date: <u>1441 4/29/05</u>		
Ind. #	Angle	% of DAC	Indication Length			Max Location		OD SU Loc.	Scan Direct.	Remarks:	
			L1	L Max	L2	W	MP				
<u>NDA</u>											
Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No								Limitations: <u>SINGLE SIDE EXAM. 50% COVERAGE</u>			
Remarks											
Examiner: <u>[Signature]</u> Level: <u>II</u> Date: <u>4/30/05</u> Reviewer: <u>[Signature]</u> Level: <u>III</u> Date: <u>4/30/05</u> Examiner: <u>[Signature]</u> Level: <u>    </u> Date: <u>    </u> ANII: <u>[Signature]</u> Date: <u>5/1/05</u>											

Booe 187/240



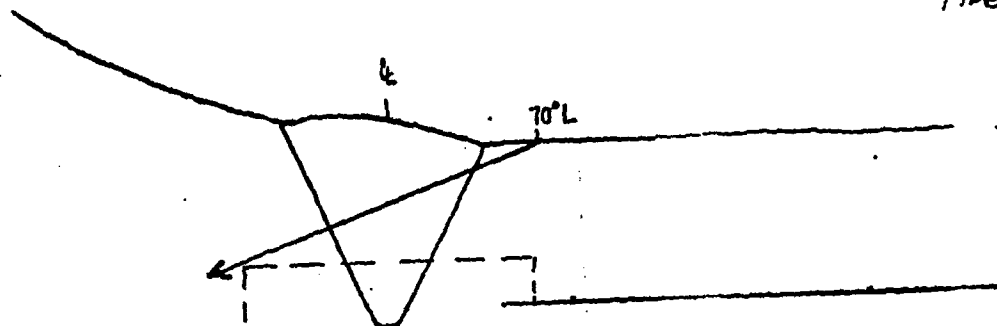
# Sketch Sheet

Data Sheet No: 05-6-452-131  
Page: 2 of 2

Plant/Unit: <u>PILGRIM STATION</u>	System: <u>RHR-A</u>	Component: <u>10-1A-15</u>	Procedure: <u>END-NDE-9.23</u>
Examination Area / Weld No.: <u>10-1A-15</u>	DWG No.: <u>ISI-I-1-10</u> <sup>10-1 7th St/15</sup>	Line No.: <u>18"-DCA-10</u>	Revision: <u>0</u>
			Work Order: <u>03116631</u>

VALVE  
29A

PIPE



FLOW

Examiner: <u>[Signature]</u> Level: <u>II</u> Date: <u>4/30/05</u>	Examiner: <u>N/A</u> Level: <u>    </u> Date: <u>    </u>
Reviewer: <u>[Signature]</u> Level: <u>III</u> Date: <u>4/30/05</u>	ANII: <u>[Signature]</u> Date: <u>4/30</u>

Page 188/240



# Calibration Data Sheet

Figure 5

Plan/Unit Pilgrim 1  
Company Scientech

Comp/System 10R-1A-6  
Procedure No. 50.87  
Rev/Chng. No. 1  
Cal. Block No. 71-64  
Cal. Block Temp 69 Therm S/N 12453  
Size 18" Sch. 0.255 T

☐ Ferritic ☒ Austenitic

Each Major CRT Div. = 3"/.3"

Cal. Direction: Axial Circ. Both

Scan Area: 1 to Weld ☒  
11 to Weld ☒

CDS 03-C-126 135

LDS 03-L-123 8P 4/23/03

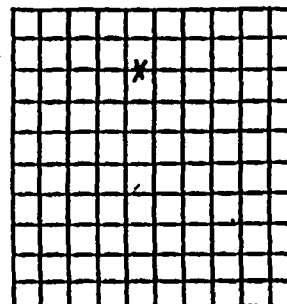
Page 1 of 1 80%

Cal. Checks	Time
Initial Calib.	<u>1335</u>
Initial Calib. Date	<u>4/21/03</u>
Intermediate	
Intermediate	
Final Calib.	<u>1432</u>
Final Calib. Date	<u>4/21/03</u>

Couplant

Type: Ultragel II

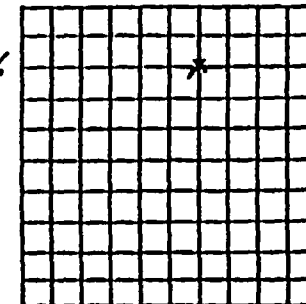
Batch: 00325



44

Search Unit #1

Manufacture: KBA  
Serial No.: 00W8K0  
Size: 0.50" Shape: Round  
Freq: 1.5 MHz Style:   
Exam Angle: 45° Mode: Shear  
Measured Angle: 45°  
Wedge Style: MSWQC



6

Search Unit #2

Manufacture: Megasonics  
Serial No.: 5111  
Size: 2(25x50) Shape: rect  
Freq: 2 MHz Style: CGD  
Exam Angle: 60° Mode: Long  
Measured Angle: 60°  
Wedge Style: integral

Search Unit Cable

Type: RG-174  
Length: 6' No. 0

Search Unit Cable

Type: RG-174  
Length: 6' No. 0

Instrument Settings

Make/Model: Staveland/Sonic 136  
Serial No.: 850K  
Delay: .458 Range:   
M'll Cal/Vol: .125 Pulser: 334us  
Damping: 500Ω Reject: OFF  
Rep. Rate: 4KHz Freq: 2.25  
Filter: 1 Mode: P-E

Reference Sensitivity (Sens.)  
Axial: 32.4 Circ: 32.4  
SCAN SENS: 38.4

Instrument Settings

Make/Model: Staveland/Sonic 136  
Serial No.: 850K  
Delay: .830 Range: 3.0"  
M'll Cal/Vol: .235 Pulser: 250  
Damping: 500Ω Reject: OFF  
Rep. Rate: 4KHz Freq: 2.25  
Filter: 1 Mode: Real

Reference Sensitivity (Sens.)  
Axial: 69dB Circ: 1/1  
SCAN SENS: 69dB

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
<u>10R-1A-6</u>	<u>UPST</u>		<u>X</u>		<u>38.4</u>
<u>10R-1A-6</u>	<u>UPST</u>	<u>X</u>		<u>X</u>	<u>69</u>
	<u>N</u>				
	<u>A</u>				

Remarks/Reason for Incomplete Scan(s)

- ① Single Sided exam due to Component Configuration (Pipe to Valve)
- ② Maintained 5-20% ID roll

Examiners: [Signature] Level II Date 4/21/03

Level \_\_\_\_\_ Date \_\_\_\_\_

EOO  
Reviewers: [Signature] Further Evaluation Required? Yes ☐ No ☒ 4/23/03

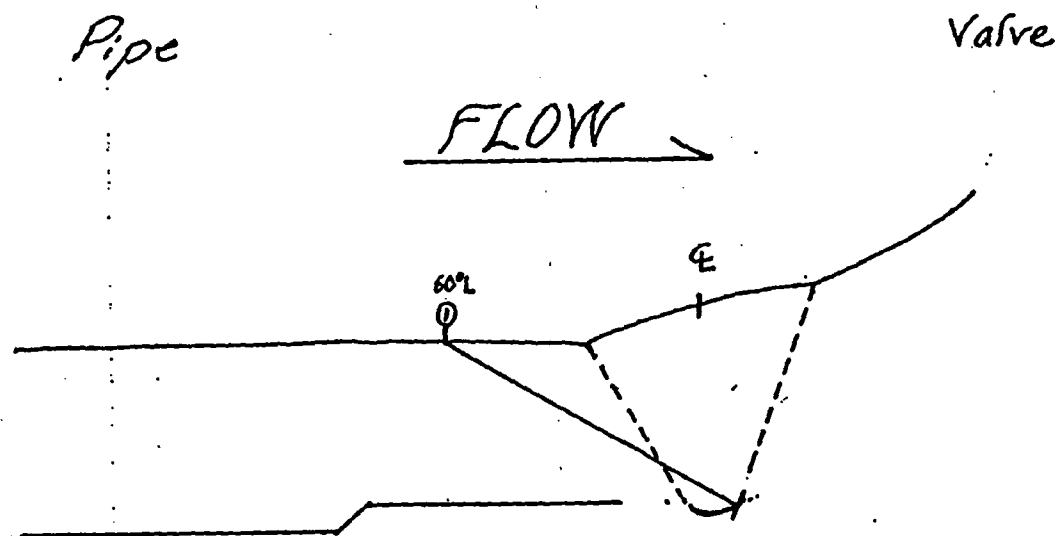
Entropy III

Page 189/240





Page: 2 of 2  
Component: 10R-1A-6  
Data Sheet: 03-E-136



\* Reviewed original  
radiographs and  
root convexity present.  
Supports plots.

B. Perkins III  
4/22/03

Examiner *Paul T. Hayes*  
Paul T. Hayes

Level II

Date 4/21/03

Page 191/240



# Calibration Data Sheet

Figure 5

Plan/Unit Pilgrim 1  
Company Scientech

Comp/System 10R-1A-7/RHR

Procedure No. 50.87

Rev/Chng. No. 1

Cal. Block No. P.1-64

Cal. Block Temp 65° Therm S/N 121558

Size 1.6" Sch. 0.235 T

☐ Ferritic ☒ Austenitic

Each Major CRT Div. = .3"/.3"

Cal. Direction: Axial Circ. Both

Scan Area: 1 to Weld ☒  
11 to Weld ☒

CDS 03-C-137

LDS 03-L-123

Page 1 of 1

Cal. Checks	Time
Initial Calib.	<u>0817</u>
Initial Calib. Date	<u>4/22/03</u>
Intermediate	
Intermediate	
Final Calib.	<u>1155</u>
Final Calib. Date	<u>4/22/03</u>

Couplant  
Type: Ultragel II  
Batch: 00325

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
<u>10R-1A-7</u>	<u>DIST</u>	<u>X</u>		<u>X</u>	<u>38.4</u>
<u>10R-1A-7</u>	<u>DIST</u>	<u>X</u>		<u>X</u>	<u>70dB</u>
<u>N</u>	<u>A</u>				

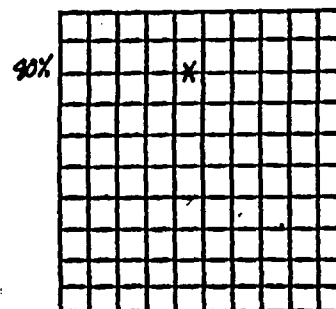
Remarks/Reason for Incomplete Scan(s)  
① Single sided exam due to component configuration  
(Valve to Pipe)  
② Maintained 5-20% ID roll

Examiners: [Signature] Level II Date 4/22/03

Level \_\_\_\_\_ Date \_\_\_\_\_

Reviewers: B. Perkins Further Evaluation Required? Yes ☒ No ☐

Emery III 4/23/03

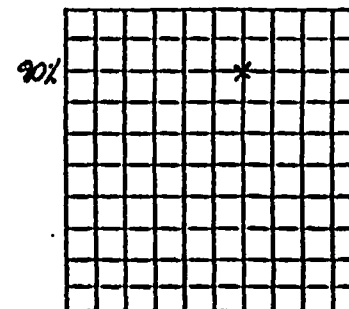


4.9  
Search Unit #1

Manufacture: KBA  
Serial No.: 00W8K0  
Size: 0.50" Shape: round  
Freq: 1.5 MHz Style: \_\_\_\_\_  
Exam Angle: 45° Mode: Shear  
Measured Angle: 45°  
Wedge Style: MSWQC

Search Unit Cable  
Type: RG-174  
Length: 6' No. 0

Instrument Settings  
Make/Model: Staveland/Sonic 136  
Serial No: 850K  
Delay: .458 Range: 30"  
M'd Cal/Wel: .125 Pulser: 334ms  
Damping: 500Ω Reject: OFF  
Rep. Rate: 4KHz Freq: 2.25  
Filter: 1 Mode: P-E  
Reference Sensitivity (Sens.)  
Axial: 32.4 Circ: 32.4  
SCAN SENS: 38.4



6  
Search Unit #2

Manufacture: Megasonics  
Serial No.: J1111  
Size: 2(25X.50) Shape: rect  
Freq: 2 MHz Style: CGD  
Exam Angle: 60° Mode: Long  
Measured Angle: 60°  
Wedge Style: integral

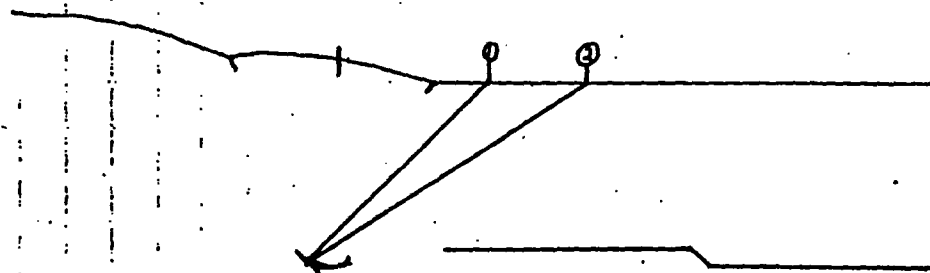
Search Unit Cable  
Type: RG-174  
Length: 6' No. 0

Instrument Settings  
Make/Model: Staveland/Sonic 136  
Serial No: 850K  
Delay: .930 Range: 30"  
M'd Cal/Wel: .235 Pulser: 250  
Damping: 500Ω Reject: off  
Rep. Rate: 4KHz Freq: 2.25  
Filter: 1 Mode: Dual  
Reference Sensitivity (Sens.)  
Axial: 70dB Circ: N/A  
SCAN SENS: 70dB

Page 192/240



Page: 2 of 2  
Component: 10A-1A-7  
Data Sheet: 03-E-138



\*also reviewed original  
Radiographs of these  
welds. Convex root pass  
supports plots.

B. Pechini  
NDE III  
4/23/03

Examiner: [Signature]

Paul T. Hayes

Level: II

Date: 4/22/03

PRO

Doc 194/240



# Calibration Data Sheet

Figure 5

Plant/Unit: PNPS  
Company: ENERGY

L.D.S. No. 01-L-199  
C. Data Sheet # 01-C-316  
Page 1 of 1

Comp/System: RWCU  
Procedure No.: 11 50.87  
Rev/Clng. No.: 0  
Cal. Block No.: PIL-8A  
Cal. Block Temp.: 64 Therm S/N  
Size: 6" Sch.: T

☐ Ferritic ☒ Austenitic

Each Major CRT Div. = 2"/.25"

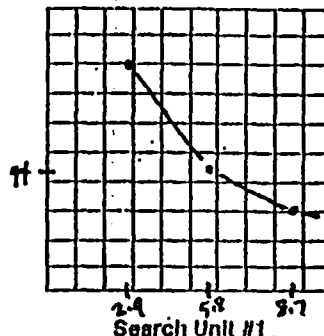
Cal. Direction: Axial Circ. Both

Scan Area: 1 to Weld  
11 to Weld

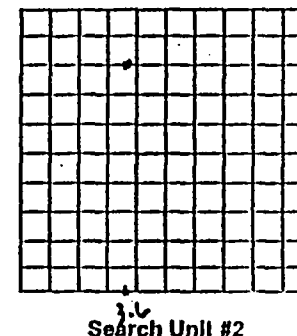
Cal. Checks	Time
Initial Calib.	<u>1035/1146</u>
Initial Calib. Date	<u>5-4-01</u>
Intermediate	<u>N</u>
Intermediate	<u>A</u>
Final Calib.	<u>1800/1804</u>
Final Calib. Date	<u>5-4-01</u>

Couplant

Type: ULTRAGEL II  
Batch: 00325



Manufacture: K6A  
Serial No.: 008V60  
Size: 375" Shape: Round  
Freq: 2.25 MHz Style: Comp G  
Exam Angle: 45° Mode: Shear  
Measured Angle: 46°  
Wedge Style: Non-Integral



Manufacture: K6A  
Serial No.: 008V58  
Size: 375" Shape: Round  
Freq: 2.25 MHz Style: Comp G  
Exam Angle: 70° Mode: Shear  
Measured Angle: 67°  
Wedge Style: Non-Integral

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
<u>12-0-24 (45°)</u>	<u>DS</u>	<u>N/A</u>	<u>✓</u>	<u>N/A</u>	<u>43.25</u> <u>49.50</u>
<u>12-0-24 (70°)</u>	<u>DS</u>	<u>N/A</u>	<u>✓</u>	<u>N/A</u>	<u>52.20</u>
<u>N</u>	<u>A</u>				

Remarks/Reason for Incomplete Scan(s)

SINGLE SIDED EXAM DUE TO FLANGED HEAD TO PIPE.  
CONFIGURATION. 56.64% COVERAGE  
73P

Examiners: Daniel P. Thiel Level II Date 5-4-01

N/A Level N/A Date N/A

Reviewers: JP Pickens Further Evaluation Required? Yes ☒ No ☐

NDT III

Search Unit Cable  
Type: RG-174 U  
Length: 6' No. 0

Instrument Settings  
Make/Model: STAVLEY/Sonic 136  
Serial No.: 1009L  
Delay: 0.329" Range: 2.0°  
M'll Cal/Vol: 0.127V Pulsor: 222nS  
Damping: 500 n Reject: OFF  
Rep. Rate: 4 kHz Freq: 2.25 MHz  
Filter: 1 Mode: P-E  
Reference Sensitivity (Sens.)  
Axial: 37.0 dB Circ: 37.0 dB  
SDH Sensitivity: 43.0 dB / 44.0 dB

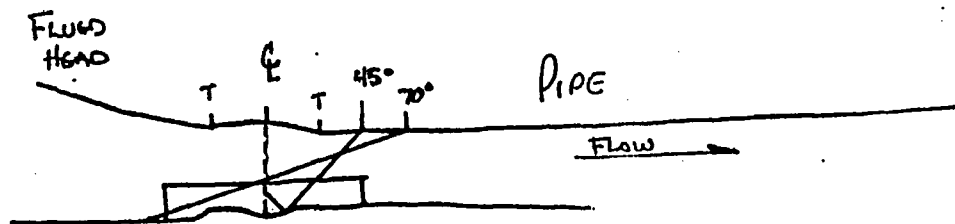
Search Unit Cable  
Type: RG-174 U  
Length: 6' No. 0


Instrument Settings  
Make/Model: STAVLEY/Sonic 136  
Serial No.: 1009L  
Delay: 0.469" Range: 2.5°  
M'll Cal/Vol: 0.127V Pulsor: 222nS  
Damping: 500 n Reject: OFF  
Rep. Rate: 4 kHz Freq: 2.25 MHz  
Filter: 1 Mode: P-E  
Reference Sensitivity (Sens.)  
Axial: 53.2 dB Circ: N/A  
SDH Sensitivity: 53.2 dB

Page 195/240

# Ultrasonic Examination Indication Report Sheet

WELD 12-0-24



 II 5-4-01  
 DENNIS P. STRICKLAND

TOTAL AREA = .1659"

SCANNED FROM:	59"	% : 0054-01
(AX) DS	.12259"	76.56% 76.56%
(AX) US	.0859"	50.00%
(CIRC) CW	.0859"	50.00%
(CIRC) CCW	.0859"	50.00%
		226.56%

$$226.56\% \div 4 (\text{SCAN DIRECTIONS}) = 56.64\%$$

TOTAL COVERAGE = 56.64%

# Entergy

## Calibration Data Sheet

CDS No: 05-C-457-151  
LDS No: 05-L-422-151  
Page: 1 of 1

Plant/Unit: PILGRIM  
System: CORE SPRAY  
Component: 14-A-19  
Line No.: 10-DC-14  
Procedure: ENTNDE-923 Rev.: 0  
Thermometer S/N: 230  
Cal. Blk Temp.: 64° Comp Temp.: 67°  
Cal. Block No.: PIL BA  
☐ Carbon Steel ☒ Stainless Steel  
Size: 10.0" Sch.: .593 THK  
Cal Direction ☒ Axial ☐ Circ ☐ Both  
Scan Area ☒ ⊥ to weld  
Scan Area ☒ || to weld

Work Order: 0316643  
DWG No.: ISI I 14-1

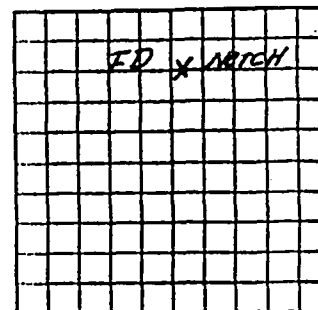
Cal Checks	Time
Initial Cal.:	<u>850 / 910</u>
Date:	<u>4-29-05</u>
Inter. Cal.:	
Date:	
Inter. Cal.:	
Date:	
Final Cal.:	<u>1645</u>
Date:	<u>4-29-05</u>

### Couplant

Type: ULTRAGEL II  
Batch: 01225

Examination Area / Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom.	
<u>14-A-19</u>	<u>SINGLE</u>		<input checked="" type="checkbox"/>		<u>39.0</u>
Remarks					
Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

Examiner: D. A. David M. Gabriel Level: II Date: 4-29-05  
Examiner: N/A Level: N/A Date: N/A  
Reviewer: W. J. L. Shum Level: III Date: 4/30/05  
ANII: Carl Harris Date: 4/30/05



### Search Unit #1

Manufacturer: KBA  
Model: COMP 6  
Serial No.: 0075C4  
Size: .375 Shape: Round  
Freq.: 1.5 # Elm: 1  
Angle: 45° Mode: SHEAR  
Measured Angle: 45°  
Wedge Style: MSWGL

### Search Unit Cable

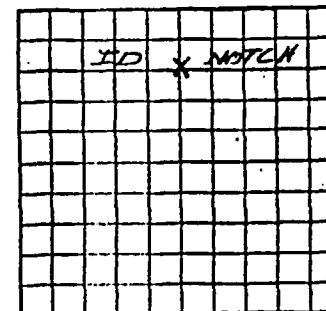
Type: RG-174  
Length: 6' # Con.: 0

### Instrument Settings

Manufacturer: STANLEY  
Model: SONIC 136  
Serial No.: 136P1200H041457  
Linearity Due: 5-2-05  
Delay: .283 Range: 2.00  
Mtl. Vel.: .123 Pulser: 334  
Damping: 500 Reject: OFF  
Rep Rate: 4K Freq.: 2.25  
Filter: 2 Mode: P.E

### Reference Sensitivity

Axial: 33.0 Circ: 33.0



### Search Unit #2

Manufacturer: KBA RTD  
Model: COMP 6 TRLA  
Serial No.: 00-728  
Size: (2) 8x14 Shape: SQ  
Freq.: 2.0 # Elm: 2  
Angle: 70° Mode: LONG.  
Measured Angle: 70°  
Wedge Style: INTEGRAL

### Search Unit Cable

Type: (2) RG-174  
Length: 6' # Con.: 0

### Instrument Settings

Manufacturer: STANLEY  
Model: SONIC 136  
Serial No.: 136P1200H041457  
Linearity Due: 5-2-05  
Delay: .943 Range: 4.0  
Mtl. Vel.: .230 Pulser: 250  
Damping: 500 Reject: OFF  
Rep Rate: 4K Freq.: 2.25  
Filter: 2 Mode: DUAL

### Reference Sensitivity

Axial: 68.6 Circ: N/A

Page 108/340





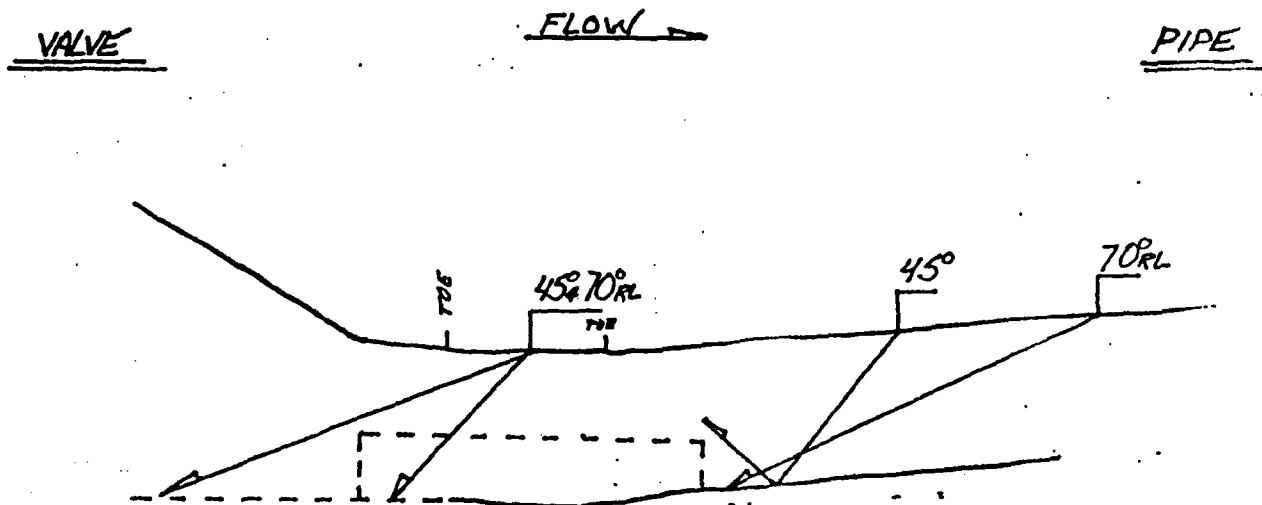


# Sketch Sheet

Data Sheet No: 05-E-458-131

Page: 2 of 2

Plant/Unit: <u>PILGRIM</u>	System: <u>CORE SPRAY</u>	Component: <u>14-A-19</u>	Procedure: <u>ENR-NDE - 9.23</u> Revision: <u>0</u>
Examination Area / Weld No.: <u>14-A-19</u>	DWG No.: <u>ISI I 14-1</u>	Line No.: <u>10-DC-14</u>	Work Order: <u>03116643</u> <u>ISI I 14-1 DWG NO.</u>



Examiner: [Signature] Level: II Date: 4-29-05

Examiner: [Signature] Level: III Date: 4/29

Reviewer: [Signature] Level: III Date: 4/30/05

ANII: [Signature] Date: 5/1/05



# Calibration Data Sheet

Figure 5

Plant/Unit PNPS  
 Company ENERGY  
 Comp/System CORG SPRAY  
 Procedure No. ITI 50.87  
 Rev/Chng. No. 0  
 Cal. Block No PIL-8A  
 Cal. Block Temp. 62.1561 Therm S/N  
 Size 10" Sch. .513" T  
☐ Ferritic ☒ Austenitic  
 Each Major CRT Div. = .25"  
 Cal. Direction: (Axial) Circ. Both  
 Scan Area: II to Weld  
II to Weld

CDS 01-C-193  
 LDS 01-L-141

Cnl. Checks	Time
Initial Calib.	0130/1015
Initial Calib. Date	4-26-01
Intermediate	N
Intermediate	A
Final Calib.	1553/1534
Final Calib. Date	4-26-01

Compliant  
 Type: ULTRAGEL II  
 Batch: 00325

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
14-B-17	US	N/A	✓	N/A	47.2 67.8
14-B-20	US	N/A	✓	N/A	47.2 67.8
	N				
	A				

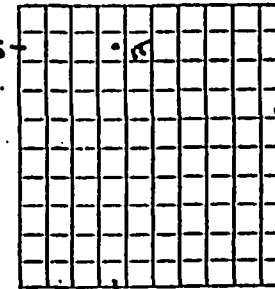
Remarks/Reason for Incomplete Scan(s)

SEE ATTACHED COVERAGE PLOTS

Examiners: [Signature] Level III Date 4-26-01

[Signature] Level III Date 4/26/01

Reviewers: [Signature] Further Evaluation Required? Yes (No)

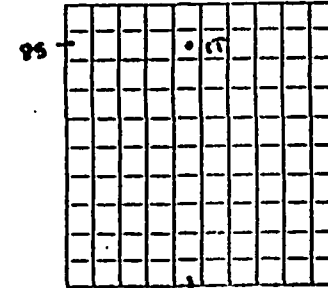


3.6  
Search Unit #1

Manufacture: KBA  
 Serial No.: 0080LR  
 Size: 3.75" Shape: ROUND  
 Freq: 1.5 MHz Style: Long G  
 Exam Angle: 45° Mode: SWEEP  
 Measured Angle: 48°  
 Wedge Style: Non-Integral

Search Unit Cable  
 Type: RG-174V  
 Length: 6' No. 0

Instrument Settings  
 Make/Model: SONIC 136  
 Serial No: 1009L  
 Delay: 0.323" Range: 2.5"  
 M'll CalVel: 0.25% Pulsar: 334LS  
 Damping: 500n Reject: OFF  
 Rep. Rate: 4 KHz Freq: 2.25 MHz  
 Filter: 2 Mode: P/E  
 Reference Sensitivity (Sens.)  
 Axial: 35.2 dB Circ: 35.2 dB  
 SCAN SENS.: 47.2 dB / 47.2 dB



4.6  
Search Unit #2

Manufacture: MEGASONIC  
 Serial No.: J1121  
 Size: 2.25" x .20" Shape: Rect.  
 Freq: 2 MHz Style: CGD  
 Exam Angle: 60° Mode: Long  
 Measured Angle: 58.9°  
 Wedge Style: Integral

Search Unit Cable  
 Type: RG-174V  
 Length: 6' No. 0

Instrument Settings  
 Make/Model: SONIC 136  
 Serial No: 1009L  
 Delay: 0.694" Range: 2.5"  
 M'll CalVel: 0.25% Pulsar: 250LS  
 Damping: 500n Reject: OFF  
 Rep. Rate: 4 KHz Freq: 2.25 MHz  
 Filter: 2 Mode: DUAL  
 Reference Sensitivity (Sens.)  
 Axial: 61.0 dB Circ: N/A  
 SCAN SENS.: 67 dB

Page 201/240



# Ultrasonic Examination Indication Report Sheet

Page 1 of 4

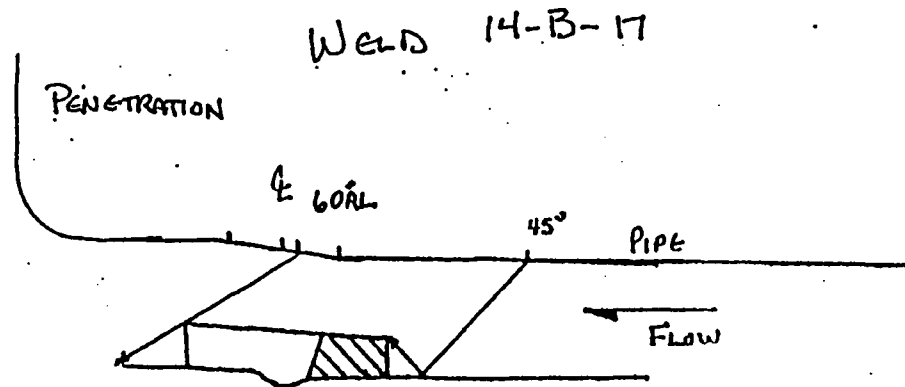
EDS No: <u>01-E-194</u>		CDS No: <u>01-C-193</u>		Lo Location: <u>TOP Deck Case</u>		Start Time: <u>1250</u>		Examiner: TC-1A-Level II <u>Dennis P. Strickland</u>		
Item Identification: <u>14-B-20</u>		TEMP: <u>80°F</u>		Wo Location: <u>Weld E</u>		Finish Time: <u>1330</u>		Examiner: TC-1A-Level II <u>Dale Murchiock</u>		
Component Information: Diameter(nom): <u>10"</u> Thickness: <u>.593"</u>				Procedure No. <u>171 50.87</u>		Rev. <u>0</u>		Date: <u>4-26-01</u> Weld Crown Width: <u>.8"</u>		
Ind #	Angle Used	% of DAC	Indication Length			Max		OD S.U. Loc.	Scan Direction I II	Remarks
			L1	Max	L2	W	MP			
N/A	45°	—			N/A				I II	NO RECORDABLE INDICATIONS
N/A	60° RL	—			N/A				I	NO RECORDABLE INDICATIONS
N A										
ANII: <u>Hyman</u> Date <u>4-28-01</u>										
Reviewer(s) <u>[Signature]</u> Date <u>4/27/01</u> Reviewer(s) <u>B. Puri</u> Date <u>4/28/01</u>										
Component <input checked="" type="checkbox"/> Meets, <input type="checkbox"/> Does Not Meet ASME Section XI 1989 Further Evaluation Required Yes <u>  </u> No <u>X</u>										

Figure 6

Page 202/240



CDS 01-C-193

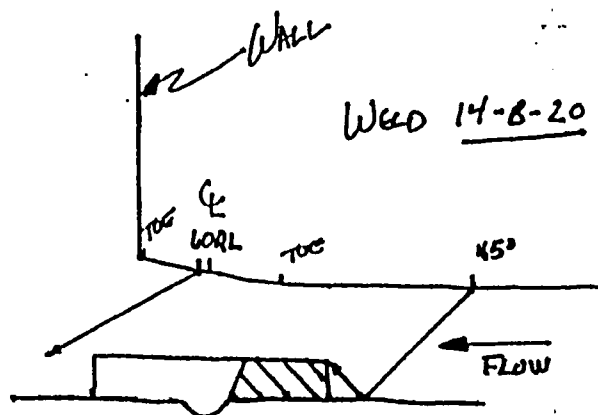
LDS 01-L-141


TOTAL AREA = .23 sq"

*Dennis P. Strickland* 4-26-01  
DENNIS P. STRICKLAND

SCANNING FROM:	Sq":	%:
(Ax) DS SIDE	.08"	34.82%
(Ax) US SIDE	.29"	100.00%
(Circ) CW SCANS	.145 sq"	50.00%
(Circ) CCW SCANS	.145 sq"	50.00%
		<u>234.82%</u>

$\frac{234.82\%}{4} = 58.7\%$  TOTAL COVERAGE  
 (SCAN DIRECTIONS)



Dennis P. Strickland II 4-26-01

• Total Area = .26 sq"

SCANNED FROM :	Sq " :	% :
(AX) DS SIDE	.09859"	37.69%
(AX) US SIDE	.269"	100.00%
(Circ) CW SCANS	.1359"	50.00%
(Circ) CCW SCANS	.1359"	50.00%
		<hr/>
		237.69%



# Calibration Data Sheet

Figure 5

Plan/Unit PNPS  
Company ENERGY  
Comp/System MAIN STEAM  
Procedure No. ITI 50.71  
Rev/Chg. No. 5  
Cal. Block No. PIL-117  
Cal. Block Temp. 66°F 1511 Therm S/N  
Size 3" Sch. .438" T  
☒ Ferritic ☐ Austenitic  
Each Major CRT Div. = .25"  
Cal. Direction: (Axial) Circ. Both  
Scan Area: I to Weld  
II to Weld

COS 01-C-252  
LDS 01-L-199

Cal. Checks	Time
Initial Calib.	0824/0837
Initial Calib. Date	05-01-01
Intermediate	N
Intermediate	A
Final Calib.	1533/1536
Final Calib. Date	05-01-01

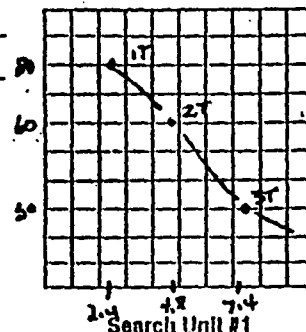
Couplant

Type: ULTRAGEL II  
Batch: 00325

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
1-SD-10R	US	N/A	✓	N/A	52.0dB 68.0dB
		N			
		A			

Remarks/Reason for Incomplete Scan(s)  
SINGLE SIDED EXAM DUE TO PIPE TO VALVE CONFIGURATION.

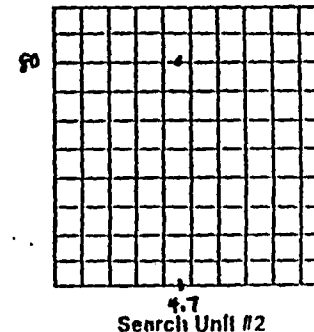
Examiners: Dennis P. H. [Signature] Level II Date 05-01-01  
[Signature] Level III Date 5/1/01  
Reviewers: B. Perkins Further Evaluation Required? Yes ☐ No ☒  
NPT III



Manufacture: KBA  
Serial No.: 006N3L  
Size: .25" Shape: ROUND  
Freq: 5.0MHz Style: COMP G  
Exam Angle: 45° Mode: SHEAR  
Measured Angle: 45°  
Wedge Style: NON-INTEGRAL

Search Unit Cable  
Type: RG-174 U  
Length: 6' No. 0

Instrument Settings  
Make/Model: STANLEY/SONIC 136  
Serial No.: 1009L  
Delay: 0.236" Range: 2.5"  
M/I CalVel: 0.130% Pulser: POUS  
Damping: 500A Reject: OFF  
Rep. Rate: 4KHz Freq: 5.0MHz  
Filter: 1 Mode: P-E  
Reference Sensitivity (Sens.)  
Axial: 40.0dB Circ: 40.0dB  
SCAN SENS.: 52.0dB/52.0dB



Manufacture: KBA  
Serial No.: 006YWK  
Size: .25" Shape: ROUND  
Freq: 5.0MHz Style: COMP G  
Exam Angle: 70° Mode: SHEAR  
Measured Angle: 70°  
Wedge Style: NON-INTEGRAL

Search Unit Cable  
Type: RG-174 U  
Length: 6' No. 0

Instrument Settings  
Make/Model: STANLEY/SONIC 136  
Serial No.: 1009L  
Delay: 0.236" Range: 2.5"  
M/I CalVel: 0.131% Pulser: 100nS  
Damping: 500A Reject: OFF  
Rep. Rate: 4KHz Freq: 5.0MHz  
Filter: 1 Mode: P-E  
Reference Sensitivity (Sens.)  
Axial: 68.0dB Circ: N/A  
SCAN SENS.: 68.0dB





# Ultrasonic Examination Indication Report Sheet

Page 1 of 4

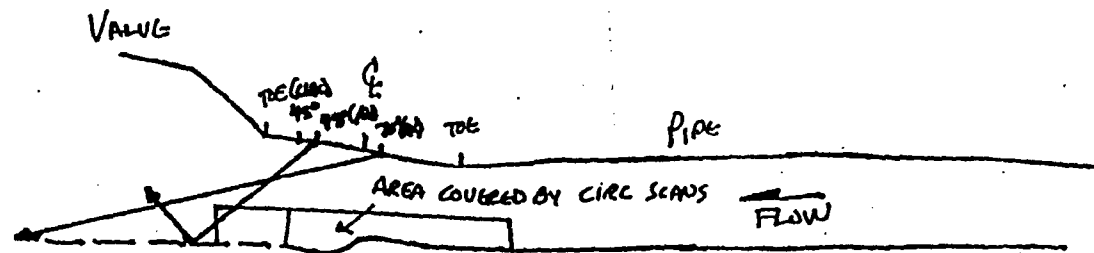
CDS No: <u>01-C-252</u>		EDS No: <u>01-E-253</u>		To Location: <u>Top Down Center</u>		Start Time: <u>1000</u>		Examiner: TC-1A-Level <u>Dennis P. Strickland II</u>		
Item Identification: <u>1-SD-10R</u>		TEMP: <u>72°F</u>		Wo Location: <u>Weld &amp;</u>		Finish Time: <u>1100</u>		Examiner: TC-1A-Level <u>[Signature]</u>		
Component Information: Diameter(nom): <u>3"</u> Thickness: <u>.438"</u>				Procedure No: <u>ITI 50.71</u>		Rev: <u>5</u>		Date: <u>05-01-01</u> Weld Crown Width: <u>1.1"</u>		
Ind #	Angle Used	% of DAC	Indication Length			Max		ON S.U. Loc.	Scan Direction I II	Remarks
			L1	Max	L2	W	MP			
N/A	45°				N/A				I II	No RECORDABLE INDICATIONS
N/A	70°				N/A				I	No RECORDABLE INDICATIONS
N A										
ANII: <u>[Signature]</u> Date <u>5-3-01</u>										
Reviewer(s) <u>N/A</u> Date <u>N/A</u> Reviewer(s) <u>B. P. Strickland II</u> Date <u>5/6/01</u>										
Component <input checked="" type="checkbox"/> Meets, <input type="checkbox"/> Does Not Meet ASME Section XI 1989 Further Evaluation Required Yes <u>    </u> No <u>X</u>										

Figure 6

Instruction No. 50.71  
Rev. 5  
Attachment A  
Page 24 of 26

Page 207/240

WELD 1-SD-10R



TOTAL AREA .2859"

SCAN FROM:	Sq":	% :
(Ax) DS SCAN	.2859"	100%
(Ax) US SCAN	.2859"	100%
(Circ) CCW SCANS	.24559"	75%
(Circ) CW SCANS	.24559"	75%
		<u>350%</u>

$350\% \div 4 \text{ (SCAN DIRECTIONS)} = 87.5\% \text{ TOTAL COVERAGE}$

Dennis P. Hild II 501-01

Bag 208/240



# Calibration Data Sheet

Figure 5

Plant/Unit PNP3  
Company ENTERGY

LDS NO: 01-L-140  
C. Data Sheet # 01-C-155  
Page 1 of 2

Comp/System 2R-HB-1  
Procedure No. III-5087  
Rev/Chng. No. 0  
Cal. Block No. P11-63  
Cal. Block Temp. 72 Therm S/N  
Size 12" Sch. -850" T

☐ Ferritic ☒ Austenitic

Each Major CRT Div. = 45° 20560° 288°

Cal. Direction: Axial Circ. Both

Scan Area: 11 to Weld

Cal. Checks	Time
Initial Calib.	<u>1220</u>
Initial Calib. Date	<u>04/22/01</u>
Intermediate	<u>N</u>
Intermediate	<u>A</u>
Final Calib.	<u>1830</u>
Final Calib. Date	<u>04/22/01</u>

Couplant

Type: ULTRAGEL  
Batch: 98325

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
<u>2R-HB-1 45°</u>	<u>D/S</u>	<u>N</u>	<u>A</u>	<u>N</u>	<u>53.0</u>
<u>2R-HB-1 60°</u>	<u>D/S</u>	<u>N</u>	<u>A</u>	<u>N</u>	<u>62.6</u>

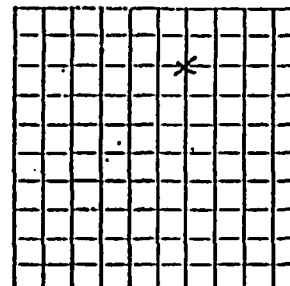
Remarks/Reason for Incomplete Scan(s)  
ONE SIDED EXAM DUE TO REDUCER, D/S  
SIDE ONLY. TOTAL COVERAGE ACHIEVED  
IS 75%. SEE ATTACHED PLOT.

Examiners: Amy Klusner Level II Date 04/22/01

John A. Level II Date 4-22-01

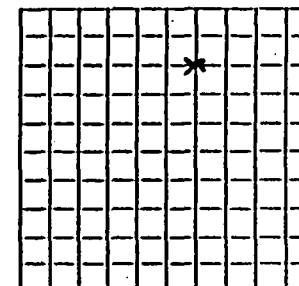
Reviewers: B.T. Padua Further Evaluation Required? Yes ☐ No ☒

NOT IT



Search Unit #1

Manufacture: KBA  
Serial No.: 0080LR  
Size: 3.75 Shape: ROUND  
Freq: 1.5MHz Style: MISCELLANEOUS  
Exam Angle: 45° Mode: SHEAR  
Measured Angle: 44°  
Wedge Style: NON-INTEGRAL



Search Unit #2

Manufacture: KBA  
Serial No.: M15116  
Size: .50" Shape: ROUND  
Freq: 1.5" Style: MISCELLANEOUS  
Exam Angle: 60° Mode: SHEAR  
Measured Angle: 58°  
Wedge Style: NON-INTEGRAL

Search Unit Cable

Type: BG-174  
Length: 12' No. 1

Search Unit Cable

Type: BG-174  
Length: 6' No. 1

Instrument Settings

Make/Model: STANLEY/SUNC 136  
Serial No: 1008L  
Delay: .293 Range: 2.05  
M'll Cal/Vol: .121 Pulser: 334  
Damping: 5000 Reject: OFF  
Rep. Rate: 4K Freq: 2.25  
Filter: 1 Mode: PIE  
Reference Sensitivity (Sens.)  
Axial: 41.0 Circ: 41.0  
SDH Sensitivity: N/A

Instrument Settings

Make/Model: STANLEY/SUNC 136  
Serial No: 1008L  
Delay: .274 Range: 2.88"  
M'll Cal/Vol: .121 Pulser: 334  
Damping: 5000 Reject: OFF  
Rep. Rate: 4K Freq: 2.25  
Filter: 1 Mode: PE  
Reference Sensitivity (Sens.)  
Axial: 56.6 Circ: 56.6  
SDH Sensitivity: N/A

Page 209/240



# Calibration Data Sheet

Figure 5

Plan/Unit PNP3  
 Company ENTERGY  
 Comp/System 2B-HB-1  
 Procedure No. ITI 50.87  
 Rev/Chng. No. 0  
 Cal. Block No. PIL-63  
 Cal. Block Temp. 72.78/99 Therm S/N  
 Size 12" Sch. .850" T"

LOS No: 01-L-148  
 C. Data Sheet # 01-C-155  
 Page 2 of 2

Cal. Checks	Time
Initial Calib.	<u>1225</u>
Initial Calib. Date	<u>4-22-01</u>
Intermediate	<u>N/A</u>
Intermediate	<u>N/A</u>
Final Calib.	<u>1830</u>
Final Calib. Date	<u>4-22-01</u>

☐ Ferritic ☒ Austenitic  
 Each Major CRT Div. = .269  
 Cal. Direction: Axial Circ. (Both)  
 Scan Area I to Weld  
II to Weld

Couplant  
 Type: ULTRAGEL  
 Batch: 98325

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
<u>2B-HB-1</u>	<u>D13</u>	<u>N/A</u>	<u>X</u>	<u>N/A</u>	<u>71.2</u>

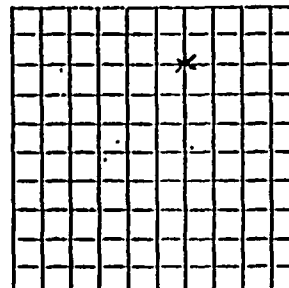
Remarks/Reason for Incomplete Scan(s)  
SCANNED AT REFERENCE SENSITIVITY,  
MAINTAINED 20% ID ROLL

Examiners: Jim E. Krauer Level II Date 04/22/01

John A. Level II Date 4-22-01

Reviewers: BP Further Evaluation Required? Yes ☐ No ☒

NDT III



Search Unit #1

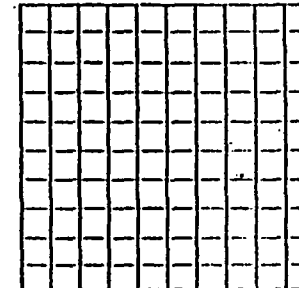
Manufacture: SIGMA  
 Serial No.: 22AF9001  
 Size: 2(14x8) Shape: Rect.  
 Freq: 2MHz Style: SDA  
 Exam Angle: 60° Mode: LONG  
 Measured Angle: 59°  
 Wedge Style: INTEGRAL

Search Unit Cable

Type: Buckhorn  
 Length: 6' No. 2

Instrument Settings

Make/Model: STAVELAND  
 Serial No.: 1008L  
 Delay: 848 Range: 2.69"  
 M'll Cal/Vol: 233 Pulsar: 250  
 Damping: 500 Reject: OFF  
 Rep. Rate: 4K Freq: 225  
 Filter: 2 Mode: PE  
 Reference Sensitivity (Sens.)  
 Axial: 71.2 Circ: 71.2  
 SDH Sensitivity: N/A



Search Unit #2

Manufacture: \_\_\_\_\_  
 Serial No.: \_\_\_\_\_  
 Size: \_\_\_\_\_ Shape: \_\_\_\_\_  
 Freq: \_\_\_\_\_ Style: \_\_\_\_\_  
 Exam Angle: \_\_\_\_\_ Mode: \_\_\_\_\_  
 Measured Angle: \_\_\_\_\_  
 Wedge Style: \_\_\_\_\_

Search Unit Cable

Type: \_\_\_\_\_  
 Length: \_\_\_\_\_ No. \_\_\_\_\_

Instrument Settings

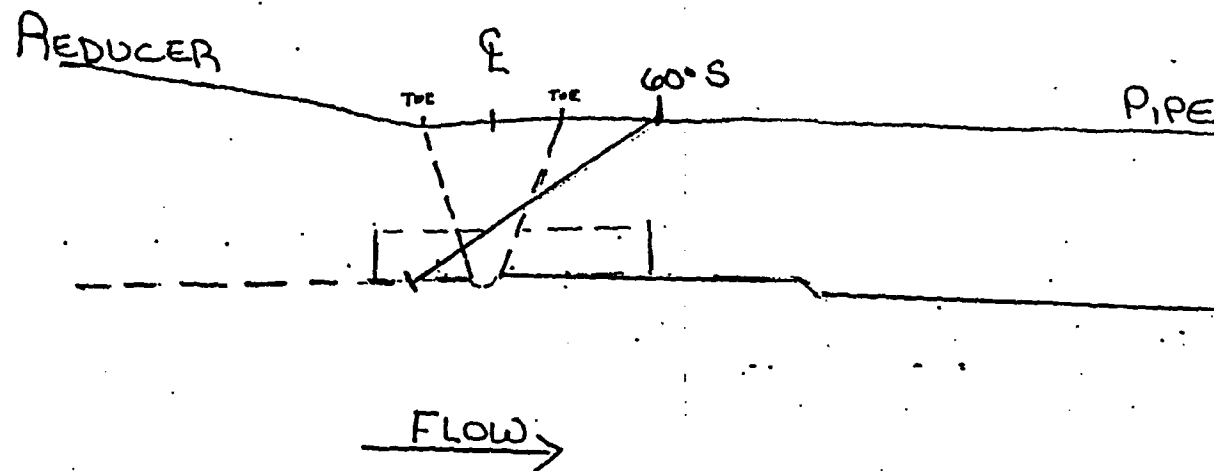
Make/Model: \_\_\_\_\_  
 Serial No.: \_\_\_\_\_  
 Delay: \_\_\_\_\_ Range: \_\_\_\_\_  
 M'll Cal/Vol: \_\_\_\_\_ Pulsar: \_\_\_\_\_  
 Damping: \_\_\_\_\_ Reject: \_\_\_\_\_  
 Rep. Rate: \_\_\_\_\_ Freq: \_\_\_\_\_  
 Filter: \_\_\_\_\_ Mode: \_\_\_\_\_  
 Reference Sensitivity (Sens.)  
 Axial: \_\_\_\_\_ Circ: \_\_\_\_\_  
 SDH Sensitivity: \_\_\_\_\_

Page 210/240



EDS # 01-E 56  
Pg 2 of 3

COMPONENT  
2R-HB-1



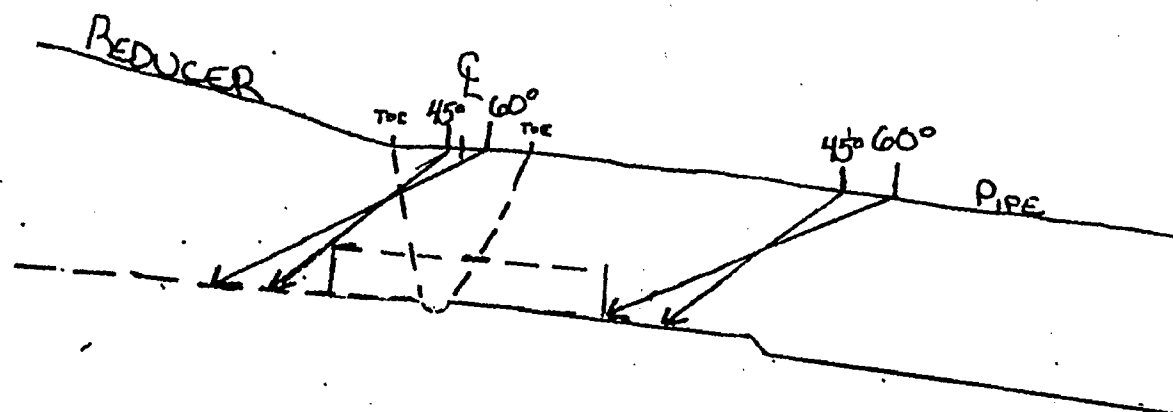
Aug 21/2/24

Amy E Krauser LVII  
04/22/01

*[Signature]* LVII  
4-22-01

EDS# 01 156  
P9 373

COMPONENT  
2R-HB-1



FLOW →

COVERAGE

- SCAN 1 - AXIAL UPSTREAM = 0%
- SCAN 2 AXIAL DOWNSTREAM = 100%
- SCAN 3 CIRC CLOCKWISE = 100%
- SCAN 4 CIRC COUNTERCLOCKWISE = 100%
- T. - 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

Amy E Krauser LV II  
04/22/01

*[Signature]* LV II  
4-22-01

Page 2/3/240



# Calibration Data Sheet

Figure 5

Plant/Unit PNP3  
Company ENTERGY

LOS No: 01-L-140  
C. Data Sheet # 01-C-157  
Page 1 of 2

Comp/System 2R-HB-4  
Procedure No. TTI-5087  
Rev/Chng. No. 0  
Cal. Block No. P11-63  
Cal. Block Temp. 72 Therm S/N  
Size 12" Sch. .850 7"

☐ Ferritic ☒ Austenitic

Each Major CRT Div. = 45.205/60.288

Cal. Direction: Axial Circ. Bolt

Scan Area: 1 to Weld  
11 to Weld

Cal. Checks	Time
Initial Calib.	<u>1220</u>
Initial Calib. Date	<u>04/22/01</u>
Intermediate	<u>N</u>
Intermediate	<u>A</u>
Final Calib.	<u>1830</u>
Final Calib. Date	<u>04/22/01</u>

Couplant

Type: ULTRAGEI  
Batch: 98325

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
<u>2R-HB-4 45°</u>	<u>D/S</u>	<u>N</u>	<u>A</u>	<u>N</u>	<u>53.0</u>
<u>2R-HB-4 60°</u>	<u>D/S</u>	<u>N</u>	<u>A</u>	<u>N</u>	<u>62.6</u>

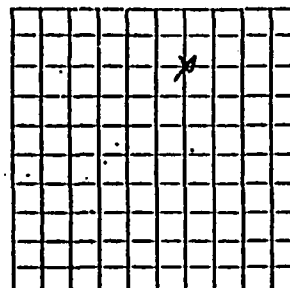
Remarks/Reason for Incomplete Scan(s)

ONE SIDED EXAM DUE TO REDUCER. SCANNED D/S ONLY. TOTAL COVERAGE ACHIEVED IS 75%. SEE ATTACHED PLOT

Examiners: Jimmy E. Kanner Level II Date 04/22/01

Level II Date 4-22-01

Reviewers: B. Perkins Further Evaluation Required? Yes ☒ No ☐  
NOT III



ID  
Search Unit #1

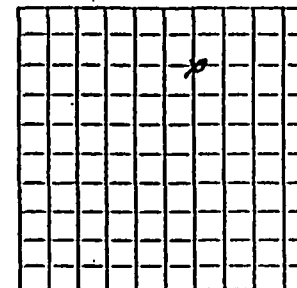
Manufacture: KBA  
Serial No.: 0080LR  
Size: .375 Shape: Round  
Freq: 1.5MHz Style: M4000-Camp  
Exam Angle: 45° Mode: SHEAR  
Measured Angle: 44°  
Wedge Style: NON-INTEGRAL

Search Unit Cable

Type: BG-174  
Length: 12' No. 1

Instrument Settings

Make/Model: STANLEY/Sunc 136  
Serial No: 1008L  
Delay: .293 Range: 2.05  
M'll Cal/Vel: .121 Pulsor: 334  
Damping: 500Ω Reject: OFF  
Rep. Rate: 4K Freq: 2.25  
Filler: 1 Mode: PIE  
Reference Sensitivity (Sens.)  
Axial: 41.0 Circ: 41.0  
SDH Sensitivity: N/A



ID  
Search Unit #2

Manufacture: KBA  
Serial No.: M1511.2  
Size: .50" Shape: Round  
Freq: 1.5" Style: M300S  
Exam Angle: 60° Mode: SHEAR  
Measured Angle: 58°  
Wedge Style: NON-INTEGRAL

Search Unit Cable

Type: BG-174  
Length: 6' No. 1

Instrument Settings

Make/Model: STANLEY/Sunc 136  
Serial No: 1008L  
Delay: .274 Range: 2.88"  
M'll Cal/Vel: .121 Pulsor: 334  
Damping: 500Ω Reject: OFF  
Rep. Rate: 4K Freq: 2.25  
Filler: 1 Mode: PE  
Reference Sensitivity (Sens.)  
Axial: 56.6 Circ: 56.6  
SDH Sensitivity: N/A

log 2141240





# Calibration Data Sheet

Figure 5

Plant/Unit PNPS  
Company ENTERGY

LOS No: 01-L-140  
C. Data Sheet # 01-C-157  
Page 2 of 2

Comp/System 2B-HB-4  
Procedure No. ITI 50.87  
Rev/Chng. No. 0  
Cal. Block No. PIL-63  
Cal. Block Temp. 72 m899 Therm S/N  
Size 12" Sch. .850 T

☐ Ferritic ☒ Austenitic

Each Major CRT Div. = .269

Cal. Direction: Axial Circ. (Both)

Scan Area I to Weld  
II to Weld

Cal. Checks	Time
Initial Calib.	<u>1225</u>
Initial Calib. Date	<u>04/22/01</u>
Intermediate	<u>N/A</u>
Intermediate	<u>N/A</u>
Final Calib.	<u>1830</u>
Final Calib. Date	<u>04/22/01</u>

Couplant

Type: ULTRAGEL  
Batch: 98325

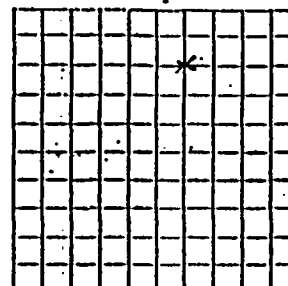
Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
<u>2B-HB-4</u>	<u>D/S</u>	<u>N/A</u>	<u>X</u>	<u>N/A</u>	<u>71.2</u>

Remarks/Reason for Incomplete Scan(s)  
SCANNED AT REFERENCE SENSITIVITY, MAINTAINING 20% ID ROLL

Examiners: Amy E. Krauser Level II Date 04/22/01

Steve H. Level II Date 4-22-01

Reviewers: B. P. P. Further Evaluation Required? Yes ☒ No ☐  
NOT III



Search Unit #1

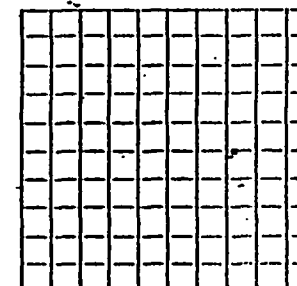
Manufacture: SIGMA  
Serial No.: 22AF9001  
Size: 2(14x8) Shape: RECT.  
Freq: 2 MHz Style: SDA  
Exam Angle: 60° Mode: LONG  
Measured Angle: 59°  
Wedge Style: INTEGRAL

Search Unit Cable

Type: Buckling  
Length: 6' No. 2

Instrument Settings

Make/Model: STANLEY/SONIC  
Serial No.: 1008L  
Delay: 848 Range: 2.69"  
M'll Cal/Vol: 233 Pulsar: 250  
Damping: 500 Reject: OFF  
Rep. Rate: 4K Freq: 225  
Filler: 2 Mode: PE  
Reference Sensitivity (Sens.)  
Axial: 71.2 Circ: 71.2  
SDH Sensitivity: N/A



Search Unit #2

Manufacture: \_\_\_\_\_  
Serial No.: \_\_\_\_\_  
Size: \_\_\_\_\_ Shape: \_\_\_\_\_  
Freq: \_\_\_\_\_ Style: \_\_\_\_\_  
Exam Angle: \_\_\_\_\_ Mode: \_\_\_\_\_  
Measured Angle: \_\_\_\_\_  
Wedge Style: \_\_\_\_\_

Search Unit Cable

Type: \_\_\_\_\_  
Length: \_\_\_\_\_ No. \_\_\_\_\_

Instrument Settings

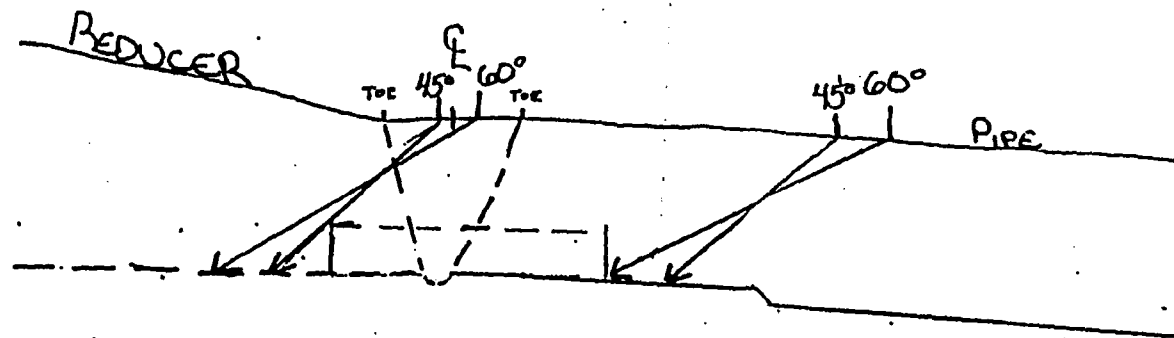
Make/Model: \_\_\_\_\_  
Serial No.: \_\_\_\_\_  
Delay: \_\_\_\_\_ Range: \_\_\_\_\_  
M'll Cal/Vol: \_\_\_\_\_ Pulsar: \_\_\_\_\_  
Damping: \_\_\_\_\_ Reject: \_\_\_\_\_  
Rep. Rate: \_\_\_\_\_ Freq: \_\_\_\_\_  
Filler: \_\_\_\_\_ Mode: \_\_\_\_\_  
Reference Sensitivity (Sens.)  
Axial: \_\_\_\_\_ Circ: \_\_\_\_\_  
SDH Sensitivity: \_\_\_\_\_

Page 215/340



EDS# 01-E-8  
P9 2 of 2

# COMPONENT 2R-HB-4



FLOW


## COVERAGE

SCAN 1 AXIAL UPSTREAM = 0%  
SCAN 2 AXIAL DOWNSTREAM = 100%  
SCAN 3 CIRC CLOCKWISE = 100%  
SCAN 4 CIRC COUNTERCLOCKWISE = 100%  
TOTAL COVERAGE = 75%

Amy Elkaner LVII  
04/22/01

*[Signature]* LVII  
4-22-01

Log 217240

 <b>ENN NUCLEAR MANAGEMENT MANUAL</b>	<b>QUALITY RELATED NON-ADMINISTRATIVE PROCEDURE</b>	<b>ENN-NDE-9.41 Revision 0</b>
	<b>INFORMATIONAL USE</b>	<b>Page 15 of 20</b>


**ATTACHMENT 9.4**
**LIQUID PENETRANT EXAMINATION REPORT**

Page 1 of 1

<input type="checkbox"/> IP2	<input type="checkbox"/> IP3	<input type="checkbox"/> JAF	<input checked="" type="checkbox"/> PNPS	<input type="checkbox"/> VY	Report No: <b>05-P-432-151</b>
WORK AUTHORIZATION <b>03116627</b>		ISO/DWG <b>N/A</b>	COMPONENT/WELD/ITEM # <b>CRDM</b>		Procedure No: <b>ENN-NDE-9.41</b> REV. <b>0</b>
MAT'L TYPE <input type="checkbox"/> CS <input checked="" type="checkbox"/> SS	TEMPERATURE <b>EXAM SURF. 80°F</b>	TEMP. INST. # <b>208</b> DUE DATE <b>8-9-05</b> <input checked="" type="checkbox"/> M&TE LOGGED	SURFACE CONDITION <input checked="" type="checkbox"/> WELDED <input type="checkbox"/> GROUND <input type="checkbox"/> FORGED <input type="checkbox"/> COATED <input type="checkbox"/> BRUSHED <input type="checkbox"/> MACHINED <input type="checkbox"/> SAND-BLASTED <input type="checkbox"/>		
TECHNIQUE <input checked="" type="checkbox"/> SOLVENT REMOVABLE <input type="checkbox"/> WATER WASHABLE					
METHOD <input checked="" type="checkbox"/> VISIBLE <input type="checkbox"/> FLUORESCENT		BLACK LIGHT MODEL <b>N/A</b> SN <b>N/A</b>	BLACK LIGHT METER: <b>N/A</b> CAL DUE DATE: <b>N/A</b>		
CLEANER Manufacturer: <b>SHERWIN</b> Type: <b>DOUBL CHEK DR-60</b> BATCH # <b>524641</b>		PENETRANT Manufacturer: <b>SHERWIN</b> Type: <b>DOUBL CHEK DP-40</b> BATCH # <b>B/N 517-E1</b>		DEVELOPER Manufacturer: <b>SHERWIN</b> Type: <b>DOUBL CHEK D-100</b> BATCH # <b>A1988/CB 8766</b>	
<b>EXAMINATION RESULTS</b>					
PART IDENTIFICATION	ACC	REJ	IND. CODE	REMARKS*	
<b>CRDM WELD - Loc 30-51</b>	<input checked="" type="checkbox"/>		<b>4</b>	<b>LIMITED TO 50% WELD AREA</b>	
<b>CRDM WELD - Loc 14-51</b>	<input checked="" type="checkbox"/>		<b>4</b>	<b>DUE TO ACCESSABILITY</b>	
				<b>LIMITED TO 70% WELD AREA</b>	
				<b>DUE TO ACCESSABILITY</b>	
ACCEPTANCE CRITERIA: <b>ASME SEC. XI</b> <b>LD 4-11-05</b>					
% COMPLETE: <b>SEE REMARKS</b> LIMITATIONS: <b>SEE REMARKS</b>					
INDICATION CODE: 1: ROUNDED 2: LINEAR 3: NO INDICATIONS 4: NO RELEVANT INDICATIONS. 5: OTHER					
SKETCHES OR COMMENTS SKETCH-Indicate size, location, orientation, and distribution of indications. Provide dimensions on all sketches. Use additional sheets if required.					
EXAMINED BY/LEVEL/DATE <b>Douglas L. Bokey 4-19-05</b>			EXAMINED BY/LEVEL/DATE <b>N/A</b>		
Company FINAL REVIEW LEVEL/DATE <b>W. J. Smith 111 4/24/05</b>			ANII REVIEW/DATE <b>Chris Hansen 5/8/05</b>		

\* QA Category and ASME XI Class

Page 218 / 240

 <b>ENN NUCLEAR MANAGEMENT MANUAL</b>	<b>QUALITY RELATED NON-ADMINISTRATIVE PROCEDURE</b>	<b>ENN-NDE-9.41 Revision 0</b>
	<b>INFORMATIONAL USE</b>	<b>Page 15 of 20</b>

**ATTACHMENT 9.4**
**LIQUID PENETRANT EXAMINATION REPORT**

Page 1 of 1

<input type="checkbox"/> IP2	<input type="checkbox"/> IP3	<input type="checkbox"/> JAF	<input checked="" type="checkbox"/> PNPS	<input type="checkbox"/> VY	Report No: <u>05-P-433-151</u>
WORK AUTHORIZATION <u>03116627</u>		ISO/DWG <u>N/A</u>	COMPONENT/WELD/ITEM # <u>CRDM</u>		Procedure No: <u>ENN-NDE-9.41</u> REV. <u>0</u>
MAT'L TYPE <input type="checkbox"/> CS <input checked="" type="checkbox"/> SS	TEMPERATURE EXAM SURF. <u>80°F</u>	TEMP. INST. # <u>208</u> DUE DATE <u>8-9-05</u> <input checked="" type="checkbox"/> M&TE LOGGED	SURFACE CONDITION <input checked="" type="checkbox"/> WELDED <input type="checkbox"/> GROUND <input type="checkbox"/> FORGED <input type="checkbox"/> COATED <input type="checkbox"/> BRUSHED <input type="checkbox"/> MACHINED <input type="checkbox"/> SAND-BLASTED <input type="checkbox"/>		
TECHNIQUE <input checked="" type="checkbox"/> SOLVENT REMOVABLE <input type="checkbox"/> WATER WASHABLE					
METHOD <input checked="" type="checkbox"/> VISIBLE <input type="checkbox"/> FLUORESCENT		BLACK LIGHT MODEL <u>N/A</u> SN <u>N/A</u>	BLACK LIGHT METER: <u>N/A</u> CAL DUE DATE: <u>N/A</u>		
CLEANER Manufacturer: <u>SHERWIN</u> Type: <u>DOUGL CHEK DR-60</u> BATCH # <u>524641</u>		PENETRANT Manufacturer: <u>SHERWIN</u> Type: <u>DOUGL CHEK</u> BATCH # <u>B/A 517-E1</u>	DEVELOPER Manufacturer: <u>SHERWIN</u> Type: <u>DOUGL CHEK - D-100</u> BATCH # <u>A19881/CB 8766</u>		
<b>EXAMINATION RESULTS</b>					
PART IDENTIFICATION	ACC	REJ	IND. CODE	REMARKS*	
<u>CRDM WELD - LOC. 42-47</u>	<input checked="" type="checkbox"/>		<u>4</u>	<u>Limited to 50% weld area due to accessibility</u>	
<u>CRDM WELD - LOC. 48-11</u>	<input checked="" type="checkbox"/>		<u>4</u>	<u>Limited to 65% weld area due to accessibility</u>	
ACCEPTANCE CRITERIA: <u>ASME SEC. XI</u> <u>WS 4-19-05</u>					
% COMPLETE: <u>SEE REMARKS</u>			LIMITATIONS: <u>SEE REMARKS</u>		
INDICATION CODE: 1: ROUNDED 2: LINEAR 3: NO INDICATIONS 4: NO RELEVANT INDICATIONS 5: OTHER					
SKETCHES OR COMMENTS SKETCH-Indicate size, location, orientation, and distribution of indications. Provide dimensions on all sketches. Use additional sheets if required.					
EXAMINED BY/LEVEL/DATE <u>Kenneth R. Ellis II</u> <u>4-19-05</u>			EXAMINED BY/LEVEL/DATE <u>MR</u>		
Company FINAL REVIEW LEVEL/TLD/DATE <u>WS J. H. Smith III</u> <u>4/26/05</u>			ANII REVIEW/DATE <u>Carl Hansen</u> <u>5/8/05</u>		

\* QA Category and ASME XI Class

Page 219/240

**BOSTON EDISON COMPANY  
RECORD OF MAGNETIC PARTICLE EXAMINATION**

DATA SHEET #

**97-M-334**

*pg 1 of 2*

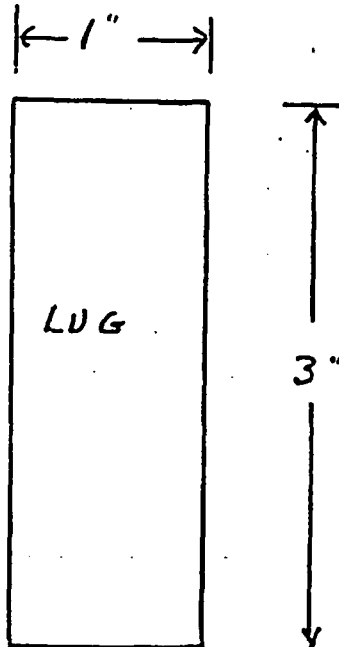
ITEM ID/PIECE # <b>EB-23-13HL1 (4)</b>		SYSTEM <u>23</u> LOCATION <u>Torus</u>		MR # <u>19600295</u>	ISO/DWG. NUMBER <u>ISS-I-23-2</u>		REV. <u>E4</u>	
A. MATERIAL		TYPE <u>CS</u>						
CROSS SECTION THICKNESS	MAX <u>VARIOUS</u>	MIN	GEOMETRY		PIPE	PLATE	ROD	
						OTHER <u>X</u> <u>LOG'S</u>		
FABRICATION PROCESS		CAST    WORKED <u>WELDED</u> OTHER						
SURFACE	MACHINED GROUND		<u>AS FABRICATED</u>		OTHER			INSPECTION HOLD PT <u>FINAL MT</u>
SURFACE IS SUITABLE FOR SCHEDULED <u>X</u> MT <u>N/A</u> UT EXAMINATION <u>YES</u> /NO								
SKETCH OR OTHER DETAIL ATTACHED <u>YES</u> /NO				WEIGHT <u>X</u> 10 LB.    40 LB				
B.	PROCEDURE # VALIDATION # POLE SPACING	<u>QCI 50.20</u> <u>N-A</u> <u>4" TO 6"</u>		EQUIPMENT IDENTIFICATION <u>X</u> AC    HWAC <u>5156</u>				
C.	EVALUATION							
LOCATION	SIZE (INCHES)	DESCRIPTION		ACTION (ACCEPT, REWORK, REJECT AND COMMENT AS NECESSARY.)				
1		<u>NO RECORDABLE INDICATIONS</u>		<u>ACCEPT AS LIMITED EXAMINATION</u>				
2				<u>due TO HANGER CLAMP SEE</u>				
3				<u>SKETCH</u>				
4								
5				<u>CODE COVERAGE 87.5%</u>				
6								
7								
D. CRITERIA		<u>ASME SECT XI 1989</u>						
E. ATTEST		COMPONENTS <u>MEET</u> DO NOT MEET ASME SECTION XI ACCEPTANCE CRITERIA, FURTHER EVALUATION REQUIRED <u>YES</u> <u>X</u> NO						
		<u>C. Bell</u> <u>IR Perry</u> <u>II / E</u> <u>3/18/97</u> RESPONSIBLE CERTIFIED PERSONNEL    LEVEL    DATE <u>GE REVIEWED BY: M. Perry</u> <u>3/19/97</u> <u>B. Perry</u> <u>3/19/97</u> <u>1/1/97</u> <u>3/19/97</u> BECO LEVEL III    DATE    ANIA    DATE						

97-M-334  
pg 2 of 2

# SKETCH SHEET

ITEM ID# EB-23-13H41 (4)

me# 19600295



TYPICAL  
1 of 4

HANGER CLAMP TYPICAL

LIMITED EXAM DUE TO HANGER CLAMP

CODE COVERAGE 87.5%

C. E. J. L. II 3-18-97

Doc 2 of 2  
Page 221/240

RECORD OF MAGNETIC PARTICLE EXAMINATION			DATA SHEET # <u>01-M-272</u>	
ITEM ID/PIECE #	SYSTEM <u>(23) HPCI</u>	MR#	ISO/DWG NUMBER	
<u>EB-23-59HL1 (4)</u>	LOCATION <u>HPCI Room</u> <u>ELV. 10'</u>	<u>10000542</u>	<u>ISI-1-23-2</u>	
A. MATERIAL		TYPE <u>CARBON STEEL</u>		
CROSS SECTION THICKNESS	MAX <u>N/A</u>	MIN <u>N/A</u>	PIPE PLATE ROD OTHER GEOMETRY <u>N/A</u> <u>N/A</u> <u>N/A</u> <u>LUG TO PIPE</u> <u>WELDS</u>	
FABRICATION PROCESS		CAST WORKED <u>WELDED</u> OTHER _____		
SURFACE	MACHINED GROUND AS OTHER <u>FABRICATED</u>		INSPECTION HOLD PT <u>1.5.1.</u>	
SURFACE IS SUITABLE FOR SCHEDULE <input checked="" type="checkbox"/> MT <u>N/A</u> UT EXAMINATION <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				
SKETCH OR OTHER DETAIL ATTACHED YES/NO <input type="checkbox"/> WEIGHT <input checked="" type="checkbox"/> 10 LB <input type="checkbox"/> 40 LB				
B. PROCEDURE # VALIDATION # POLE SPACING		<u>17 50.20</u> <u>N/A</u> <u>6"</u>	EQUIPMENT IDENTIFICATION AC <input checked="" type="checkbox"/> HWAC <input type="checkbox"/> S/N <u>69</u>	
C. EVALUATION <u>N.R.I. OBTAINED 83.3% COVERAGE DUE TO LUG TO CLAMP CONFIGURATION.</u>				
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT, REWORK, REJECT AND COMMENT AS NECESSARY)	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
D. CRITERIA		COMPONENTS MEET/DO NOT MEET ASME SECTION XI CRITERIA FURTHER EVALUATION REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
E. ATTEST		<u>ASME SECT. XI 1989</u> RESPONSIBLE CERTIFIED PERSONNEL <u>[Signature]</u> LEVEL <u>III</u> DATE <u>5/3/01</u> NDT LEVEL III DATE <u>5/3/01</u> ANII DATE <u>5/4/01</u>		

B. Perkins 5/3/01  
ENTERGY III DATE

Page 222/240



**BOSTON EDISON COMPANY  
RECORD OF MAGNETIC PARTICLE EXAMINATION**

DATA SHEET # *Page 1 of 2*  
**97-M-302**

ITEM ID/PIECE # <b>HL-10-200HL(4)</b>	SYSTEM <u>10</u> LOCATION <u>R# Aquad</u>	MR # <b>19600301</b>	ISO/DWG NUMBER <b>ISI-I-10-4A-SH-1</b>	<b>Rev. E4</b>
--	--	-------------------------	---	--------------------

A. MATERIAL	TYPE <u>CS</u>
-------------	----------------

CROSS SECTION THICKNESS	MAX <u>VAR 1003</u>	MIN	GEOMETRY	PIPE	PLATE	ROD	OTHER <u>X LUG'S</u>
-------------------------	------------------------	-----	----------	------	-------	-----	-------------------------

FABRICATION PROCESS	CAST	WORKED	WELDED <u>X</u>	OTHER
---------------------	------	--------	-----------------	-------

SURFACE	MACHINED <u>GROUND</u>	AS FABRICATED	OTHER	INSPECTION HOLD PT <u>FINAL MT</u>
---------	------------------------	---------------	-------	---------------------------------------

SURFACE IS SUITABLE FOR SCHEDULED X MT  $\frac{N}{A}$  UT EXAMINATION : (YES/NO)

SKETCH OR OTHER DETAIL ATTACHED <u>(YES/NO)</u>	WEIGHT <u>X</u> 10 LB. <u>40</u> LB
---	-------------------------------------

B.	PROCEDURE # VALIDATION # POLE SPACING	EQUIPMENT IDENTIFICATION <u>X</u> AC <u>HWAC</u> <b>5156</b>
	<u>QCI 50.20</u> <u>N-A</u> <u>4"-6"</u>	

C.	EVALUATION
----	------------

LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT, REWORK, REJECT AND COMMENT AS NECESSARY.)
1		<u>NO RECORDABLE INDICATIONS</u>	<u>LIMITED EXAMINATION. ACCEPT</u>
2			<u>(LIMITED ON UPSTREAM SIDE OF LUG'S by HANGER CLAMP SEE SKETCH.)</u>
3			
4			
5			<u>CODE COVERAGE 90%</u>
6			
7			

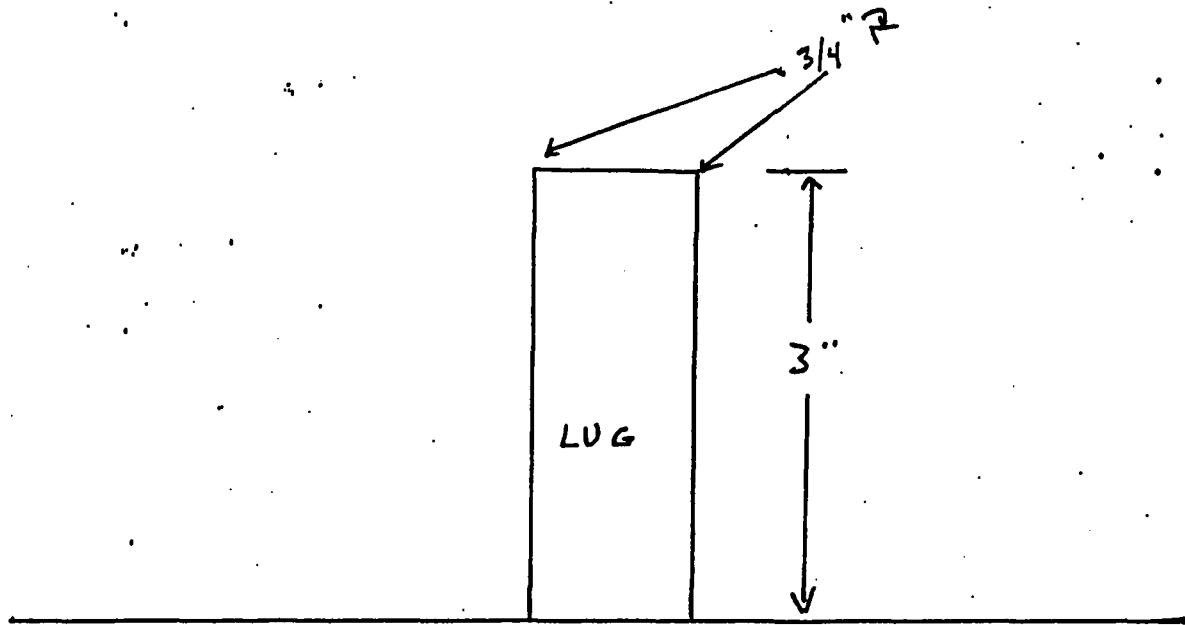
D. CRITERIA	ASME. Sect. <u>XI</u> <b>1989</b>
-------------	-----------------------------------

E. ATTEST	COMPONENTS <u>(MEET)</u> DO NOT MEET ASME SECTION XI ACCEPTANCE CRITERIA, FURTHER EVALUATION REQUIRED: <u>YES</u> <u>X</u> NO	
	<u>C. P. Mills</u> RESPONSIBLE CERTIFIED PERSONNEL <u>GE REVIEWED BY: M. Jones</u>	<u>II</u> LEVEL <u>3/14/97</u> DATE
	<u>B. Perkins</u> BECO LEVEL III DATE <u>3/14/97</u>	<u>M. Jones</u> DATE <u>3/14/97</u>

# SKETCH SHEET

ITEM ID # HL-10-200HL (4)

FOR DATA SHEET # 97-M-302  
Page 2 of 2



HANGER CLAMP

TYPICAL      1 of 4

CODE COVERAGE 90%

PAGE 2 of 2

C. E. M. L. II 3-18-97

Log 223/240



# Calibration Data Sheet

CDS No: 05-C-377-151

LDS No: 05-L-378-151 *7/15/05*

Page: 4 of 4

Plant/Unit: PILGRIM / 1  
System: CORE SPRAY  
Component: GB-14-F34  
Line No.: 6" - GB-14  
Procedure: ENP-ME-9.10 Rev.: 0  
Thermometer S/N: 232  
Cal. Blk Temp.: 63°F Comp Temp.: 64°F  
Cal. Block No.: PIL-96  
☐ Carbon Steel ☒ Stainless Steel  
Size: 6" Sch.: .432"  
Cal Direction ☒ Axial ☐ Circ ☐ Both  
Scan Area ☒  $\perp$  to weld  
Scan Area ☐  $\parallel$  to weld

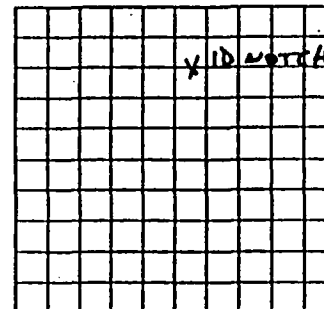
Work Order: 03116642  
DWG No.: ISI I 14-2B

Cal Checks	Time
Initial Cal.:	<u>0945</u>
Date:	<u>4-25-05</u>
Inter. Cal.:	
Date:	
Inter. Cal.:	
Date:	
Final Cal.:	<u>1603</u>
Date:	<u>4-25-05</u>

Couplant  
Type: ULTRAGEL II  
Batch: 01225

Examination Area / Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom.	
<u>GB-14-F34</u>	<u>SINGLE</u>	<u>N/A</u>	<u>✓</u>	<u>N/A</u>	<u>66.2</u>
Remarks <u>* SCANNED BELOW REFERENCE DUE TO HIGH NOISE LEVELS</u>					
Further Evaluation Required: <input type="checkbox"/> Yes <input type="checkbox"/> No					

Examiner: [Signature] Level: III Date: 4-25-05  
Examiner: N/A Level: N/A Date: N/A  
Reviewer: W. [Signature] Level: III Date: 4/27/05  
ANII: [Signature] Date: 4/27/05



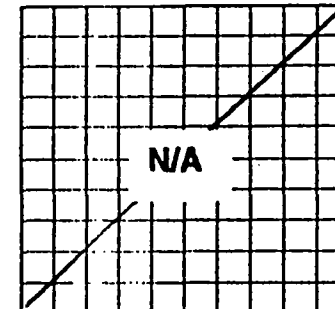
## Search Unit # 1

Manufacturer: RTD  
Model: TRLA  
Serial No.: 98-1082  
Size: 2(7x10) Shape: RECT  
Freq.: 2 MHz # Elm: 2  
Angle: 70° Mode: LONG  
Measured Angle: 71°

Wedge Style: INTEGRAL  
Search Unit Cable  
Type: RG 174  
Length: 6' # Con.: 0

Instrument Settings  
Manufacturer: STANLEY  
Model: SONIC 136  
Serial No.: 136-875K  
Linearity Due: 5-2-05  
Delay: .815 Range: 2.00  
Mtl. Vel.: .230 Pulser: 250  
Damping: 500 Reject: OFF  
Rep Rate: 4K Freq.: 2.25  
Filter: 2 Mode: DUAL

Reference Sensitivity  
Axial: 72.2 Circ: N/A



## Search Unit # 2

Manufacturer: N/A  
Model: N/A  
Serial No.: N/A  
Size: N/A Shape: N/A  
Freq.: N/A # Elm: N/A  
Angle: N/A Mode: N/A  
Measured Angle: N/A

Wedge Style: N/A  
Search Unit Cable  
Type: N/A  
Length: N/A # Con.: N/A

Instrument Settings  
Manufacturer: N/A  
Model: N/A  
Serial No.: N/A  
Linearity Due: N/A  
Delay: N/A Range: N/A  
Mtl. Vel.: N/A Pulser: N/A  
Damping: N/A Reject: N/A  
Rep Rate: N/A Freq.: N/A  
Filter: N/A Mode: N/A




Reference Sensitivity  
Axial: N/A Circ: N/A

Page 224/240



# Examination Data Sheet

EDS No: <sup>493</sup>05-E-~~388~~-151  
CDS No: 05-C-~~379~~-151-492-151  
LDS No: 05-L-~~378~~-151-491-151 <sup>7/15/05</sup>  
Page: 1 of 4

Plant/Unit: <b>PILGRIM / 1</b>			System: <b>CORE SPRAY</b>			Component: <b>GB-14-F34</b>			Procedure: <b>ENN-NDE-9.10</b>		
Work Order: <b>03116642</b>			DWG No.: <b>ISI I 14-2B</b>			<input checked="" type="checkbox"/> Carbon Steel <input checked="" type="checkbox"/> Stainless Steel			Revision: <b>0</b>		
Examination Area / Weld No.: <b>GB-14-F34</b>			Line No.: <b>6"-GB-14</b>			Size: <b>6"</b> Schedule: <b>.280"</b>			Start Time/Date: <b>1345 / 4-25-05</b> Finish Time/Date: <b>1540 / 4-25-05</b>		
Ind. #	Angle	% of DAC	Indication Length			Max Location		OD SU Loc.	Scan Direct.	Remarks:	
			L1	L Max	L2	W	MP				
N.R.I.											
Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No								Limitations: <b>ONE SIDED EXAM - 29.75% C.R.V.</b>			
Remarks <b>N/A</b>											
Examiner: 			Level: <b>III</b>			Date: <b>4-25-05</b>			Examiner: <b>N/A</b>		
Reviewer: 			Level: <b>III</b>			Date: <b>4/27/05</b>			ANII:  Date: <b>5/1/05</b>		

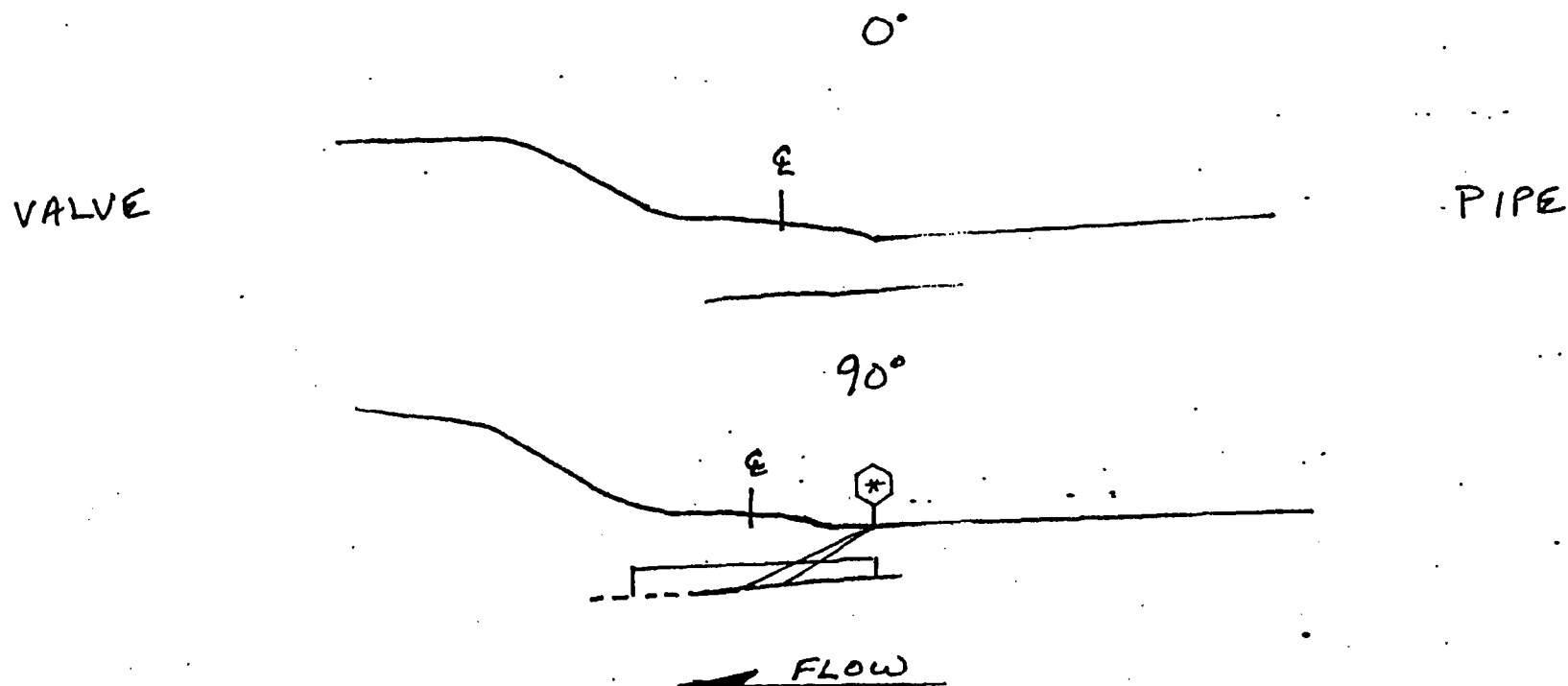
Log 205/240



# Sketch Sheet

Data Sheet No: <sup>473</sup>05-E-380-151 <sup>7/28/05</sup>  
Page: 2 of 4

Plant/Unit: <u>PILGRIM / 1</u>	System: <u>CORE SPRAY</u>	Component: <u>GB-14-F34</u>	Procedure: <u>ENW-NDE-9.6</u>
Examination Area / Weld No.: <u>GB-14-F34</u>	DWG No.: <u>ISI I 14-2B</u>	Line No.: <u>6"-GB-14</u>	Revision: <u>0</u>
			Work Order: <u>03116642</u>



\* FORWARD POINT OF 60° & 70° SHEAR EXAMS.

Examiner: <u>[Signature]</u> Level: <u>III</u> Date: <u>4-25-05</u>	Examiner: <u>N/A</u> Level: <u>N/A</u> Date: <u>N/A</u>
Reviewer: <u>[Signature]</u> Level: <u>III</u> Date: <u>4/27/05</u>	ANII: <u>[Signature]</u> Date: <u>5/2/05</u>

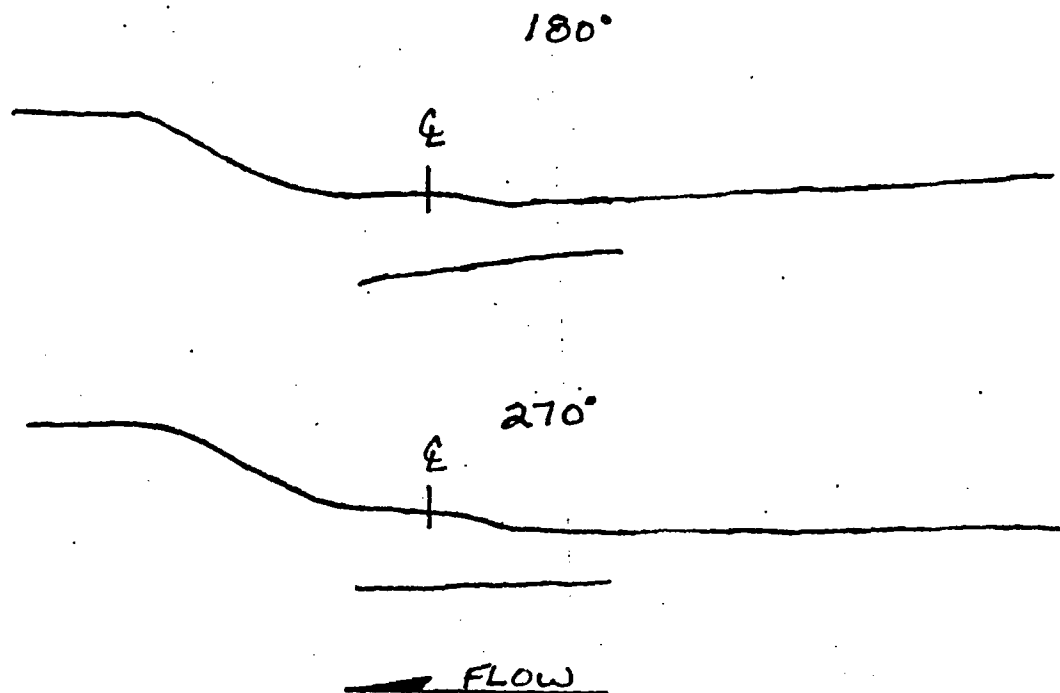
Page 226/240



# Sketch Sheet

Data Sheet No: <sup>493</sup> 05-E-38A-151 <sup>2005</sup> <sub>5/1/05</sub>  
Page: 3 of 4

Plant/Unit: <u>PILGRIM / 1</u>	System: <u>CORE SPRAY</u>	Component: <u>GB-14-F34</u>	Procedure: <u>ENN-NDE-900</u>
Examination Area / Weld No.: <u>GB-14-F34</u>	DWG No.: <u>ISI I 14-2B</u>	Line No.: <u>6" - GB-14</u>	Revision: <u>0</u>
			Work Order: <u>03116642</u>



Examiner: [Signature] Level: III Date: 4-25-05

Examiner: N/A Level: N/A Date: N/A

Reviewer: Michael Shuman Level: III Date: 4/22/05

ANII: [Signature] Date: 5/2/05

Boyle 227/240



# Sketch Sheet

Data Sheet No: <sup>493</sup>05-E-~~388~~-151 <sup>7/17/05</sup>  
Page: 4 of 4

Plant/Unit: <u>PILGRIM / 1</u>	System: <u>CORE SPRAY</u>	Component: <u>GB-14-F34</u>	Procedure: <u>ENN-NDE-9.10</u> Revision: <u>0</u>
Examination Area / Weld No.: <u>GB-14-F34</u>	DWG No.: <u>ISI I 14-2B</u>	Line No.: <u>6" - GB-14</u>	Work Order: <u>03116642</u>

GB-14-F34 PREP DID NOT MEET PARA. 5.3.4.9 OF ENN-NDE-9.10. DUE TO SURFACE GAPS EXCEEDING  $1/32"$  NO COVERAGE WAS CLAIMED ON WELD IN AX OR. CIRC DIRECTIONS. 60° SHEAR WAS SCANNED IN CIRC DIRECTION TO ENHANCE 45° SCAN DUE TO WIDE WELD CROWN. 60° & 70° RL'S WERE SCANNED FROM PIPE SIDE BUT WELD CROWN REINFORCEMENT PRECLUDED SUFFICIENT FORWARD MOVEMENT FOR SOUND TO REACH THE WELD CENTERLINE.

## CODE REQUIRED VOLUME:

AXIAL SCANS - 40%  
CIRC SCANS - 19.5%  
CRV - 29.75%

<sup>Box</sup>  
(.11 x 1.40) <sup>60</sup>  
TOTAL EXAM AREA - .154 in<sup>2</sup>  
AXIAL AREA SCANNED - .0735 in<sup>2</sup>  
CIRC AREA SCANNED - .013 in<sup>2</sup>

Examiner: [Signature] Level: III Date: 4-25-05

Examiner: N/A Level: N/A Date: N/A

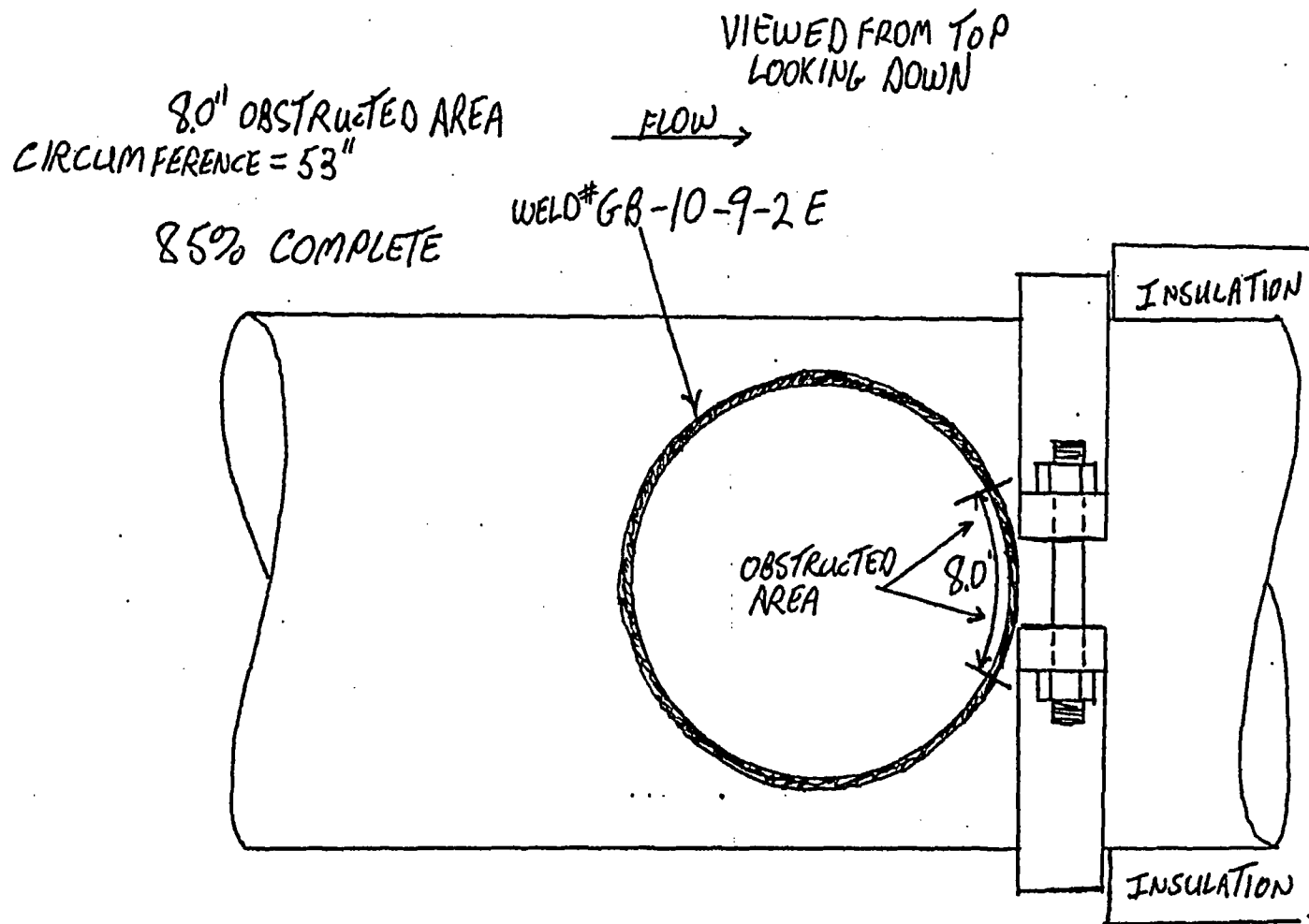
Reviewer: [Signature] Level: III Date: 4/27/05

ANII: [Signature] Date: 5/2/05

Boq. 228/240

RECORD OF MAGNETIC PARTICLE EXAMINATION		DATA SHEET # <u>03-14-064</u>	
ITEM ID/PIECE #	SYSTEM	MR#	ISO/DWG NUMBER
<u>GB-10-9-2E</u>	<u>RKR</u> LOCATION <u>TORUS ROOM</u>	<u>0115999</u>	<u>ISI-I-10-4B 04.1</u>
A. MATERIAL		TYPE <u>C.S.</u>	
CROSS SECTION THICKNESS	MAX <u>.375"</u>	MIN <u>N/A</u>	PIPE PLATE ROD OTHER GEOMETRY <u>✓</u>
FABRICATION PROCESS		CAST WORKED <u>(WELDED)</u> OTHER	
SURFACE		MACHINED GROUND AS OTHER FABRICATED	
SURFACE IS SUITABLE FOR SCHEDULE		INSPECTION HOLD PT <u>I.S.I.</u>	
SURFACE IS SUITABLE FOR SCHEDULE		<input checked="" type="checkbox"/> MT <input checked="" type="checkbox"/> UT EXAMINATION <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SKETCH OR OTHER DETAIL ATTACHED		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> WEIGHT <input checked="" type="checkbox"/> 10 LB <input type="checkbox"/> 40 LB	
B. PROCEDURE #		EQUIPMENT IDENTIFICATION	
VALIDATION #		AC <input checked="" type="checkbox"/> HWAC <input type="checkbox"/>	
POLE SPACING		SN <u>70</u>	
C. EVALUATION			
LOCATION	SIZE (INCHES)	DESCRIPTION	ACTION (ACCEPT, REWORK, REJECT AND COMMENT AS NECESSARY)
1.			<u>NRI- ACCEPT</u>
2.			<u>85% coverage obtained.</u>
3.			<u>BP</u>
4.			
5.		<u>ISI GROOP NOTED.</u>	
6.		<u>BP 4/1/03</u>	
7.			
D. CRITERIA		COMPONENTS <u>DO NOT MEET</u> ASME SECTION XI CRITERIA FURTHER EVALUATION REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
E. ATTEST		ASME XI 1989	
RESPONSIBLE CERTIFIED PERSONNEL		LEVEL	
<u>B. P. P. 4-1-03</u>		<u>II</u>	
NDT LEVEL III		DATE	
<u>4-1-03</u>		<u>3/27/03</u>	
DATE		DATE	
<u>4-1-03</u>		<u>4-11-03</u>	
DATE		DATE	





EXAMINER Shawn R. Danner LEVEL II DATE 3-27-03



# Calibration Data Sheet

Figure 5

Plant/Unit PILGRIM / U1  
Company ENERGY

Comp/System RHA  
Procedure No. 5071  
Rev/Chng. No. 610  
Cal. Block No. PIL-47A  
Cal. Block Temp. 67° 122.97 Therm S/N  
Size 18" Sch. 0375" T

☒ Ferritic ☐ Austenitic

Each Major CRT Div. = 0.2 / 0.25"

Cal. Direction: (Axial) Circ. Both

Scan Area: to Weld ☒

II to Weld

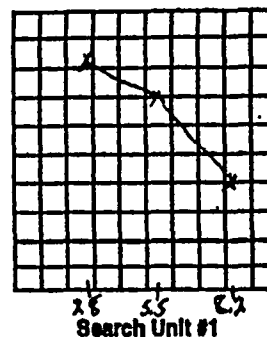
LOS NO. 03-L-046  
Data Sheet # 03-C-072  
Page 1 of 1

Cal. Checks	Time
Initial Calib.	<u>1745</u> <u>1748</u>
Initial Calib. Date	<u>3-27-03</u>
Intermediate	<u>N</u>
Intermediate	<u>A</u>
Final Calib.	<u>2049</u> <u>2050</u>
Final Calib. Date	<u>3-27-03</u>

Couplant

Type: ULTRAGEL II

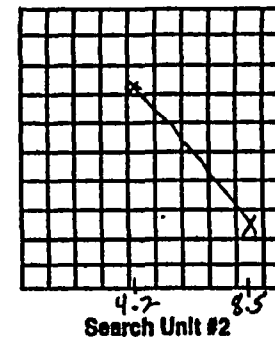
Batch: 00325



Manufacture: KBA  
Serial No.: 00WPL4  
Size: 0.25" Shape: ROUND  
Freq: 5.0 Style: COMP 6  
Exam Angle: 45 Mode: SHEAR  
Measured Angle: 40  
Wedge Style: ST

Search Unit Cable  
Type: R6-174/14  
Length: 6' No. 0

Instrument Settings  
Make/Model: STAVLEY/SONIC-136  
Serial No.: 8011300  
Delay: 0.167 Range: 2.0"  
Mtd Cal/Wet: 0125 Puts: 100%  
Damping: 500.0 Reject: OFF  
Rep. Rate: 4K Freq: 5.0  
Filter: 1 Mode: P/E  
Reference Sensitivity (Sens.)  
Axial: 34.6 Circ: 34.6  
SCAN SENS: 58.0



Manufacture: KBA  
Serial No.: 00WPL4  
Size: 0.25" Shape: ROUND  
Freq: 5.0 Style: COMP 6  
Exam Angle: 70 Mode: SHEAR  
Measured Angle: 71  
Wedge Style: ST

Search Unit Cable  
Type: R6-174/14  
Length: 6' No. 0

Instrument Settings  
Make/Model: STAVLEY/SONIC-136  
Serial No.: 8011300  
Delay: 0.371 Range: 2.5  
Mtd Cal/Wet: 0126 Puts: 100%  
Damping: 500.0 Reject: OFF  
Rep. Rate: 4K Freq: 5.0  
Filter: 1 Mode: P/E  
Reference Sensitivity (Sens.)  
Axial: 60.0 Circ: 44  
SCAN SENS: 67.0

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
<u>GB-10-9-2E</u>	<u>PIPE SIDE</u>	<u>N</u>	<u>X</u>	<u>N/A</u>	<u>67</u>
	<u>N</u>				
	<u>A</u>				

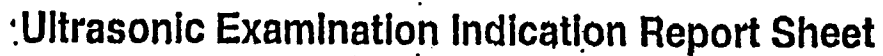
Remarks/Reason for Incomplete Scan(s) SEE ATTACHED DRAWING FOR INCOMPLETE AREAS

EXAM IS 63.75% COMPLETE

Examiners: William P. A. Level III Date 3-27-03  
NA Level NA Date NA

Reviewers: BT Perkins Further Evaluation Required? Yes ☒ No ☐  
Energy III 4-2-03

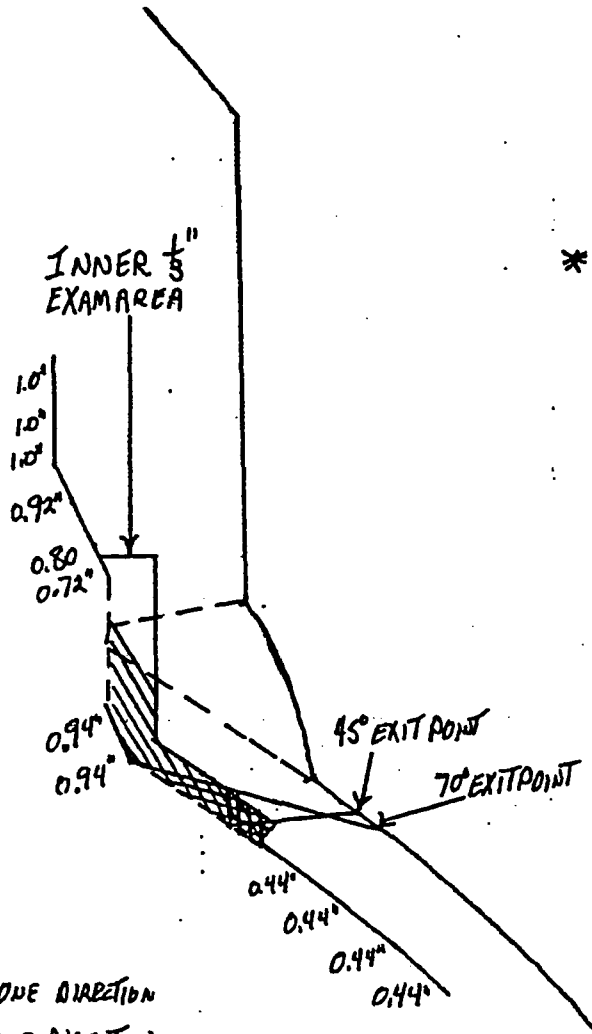
0209 03/24/04

Page 1 of 2[illegible]

Box 232/240

Instruction No. 50.71  
Rev. 5  
Attachment A  
Page 24 of 26

### Figure 6



\* Geometry is worse on this side as compared to profile side.  
 B. Perkins  
 4-2-03

$$19.292 - 3.185 = 16.107$$

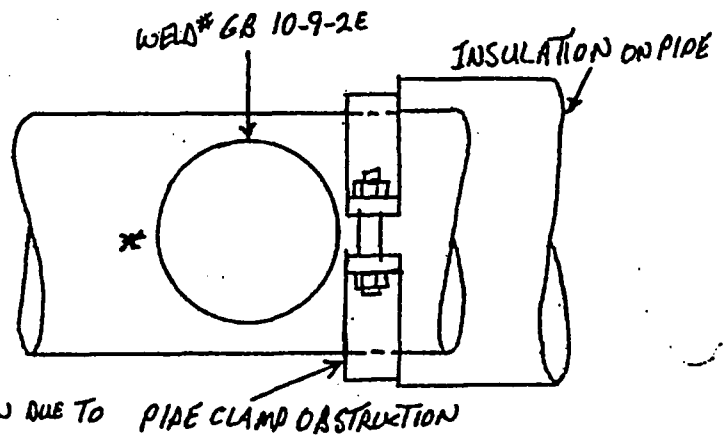
$$19.292 - 10.803 = 8.489$$

$$16.107 \div 19.292 = 83.5\% \text{ ONE DIRECTION}$$

$$8.489 \div 19.292 = 44\% \text{ ONE DIRECTION}$$

$$127.5\% \div 2 = 63.75\% \text{ TOTAL COVERAGE}$$

CIRCUMFERENCE = 53"  
 INNER  $\frac{1}{8}$ " = 0.364 SQ IN.  
 TOTAL CU IN = 19.292 5.096  
 14" NO SCAN TOTAL CU IN = 4.356 3.2703  
 MISSED SCAN AREA  
 70° = 3.185 CU IN MISSED ONE DIRECTION  
 70° = 10.803 CU IN MISSED ONE DIRECTION



EXAMINER Shawn R. Brown LEVEL TII DATE 3-28-03

Page 233/240



# Calibration Data Sheet

CDS No: 05-c-338-151  
LDS No: 05-L-333-151  
Page: 1 of 1

Plant/Unit: PILGRIM / 1  
System: RCIC  
Component: HE-26-F238  
Line No.: 6"-HE-26  
Procedure: ENH-NDE-9.04 Rev.: 1  
Thermometer S/N: 229  
Cal. Blk Temp.: 68°F Comp Temp.: 73°F  
Cal. Block No.: PIL-39A  
☒ Carbon Steel ☐ Stainless Steel  
Size: 6" Sch.: .280"

Cal Direction ☒ Axial ☐ Circ ☐ Both  
Scan Area ☒  $\perp$  to weld  
Scan Area ☒  $\parallel$  to weld

Work Order: 03116633  
DWG No.: ISI 1 13-5

Cal Checks	Time
Initial Cal.:	<u>1620/1625</u>
Date:	<u>3-28-05</u>
Inter. Cal.:	
Date:	
Inter. Cal.:	<u>N/A</u>
Date:	
Final Cal.:	<u>1910/1913</u>
Date:	<u>2-28-05</u>

Couplant  
Type: ULTRAGEL II  
Batch: 01225

Examination Area / Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom.	
<u>HE-26-F238</u>	<u>BOTH</u>	<u>N/A</u>	<u>✓</u>	<u>N/A</u>	<u>480/300</u>
	<u>SINGLE</u>				

Remarks

LAMINATION SCAN - N.R.I.

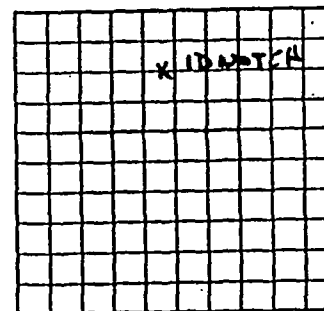
Further Evaluation Required: ☐ Yes ☒ No

Examiner: [Signature] Level: III Date: 3-28-05

Examiner: N/A Level: N/A Date: 4/1

Reviewer: [Signature] Level: JIT Date: 4-4-05/4/15

ANII: [Signature] Date: 4/1/05



Search Unit # 1

Manufacturer: KBA  
Model: COMP-G  
Serial No.: 0114 PT  
Size: .25" Shape: ROUND  
Freq.: 5 MHz # Elm: 1  
Angle: 70° Mode: SHEAR  
Measured Angle: 69  
Wedge Style: MSWAC

Search Unit Cable

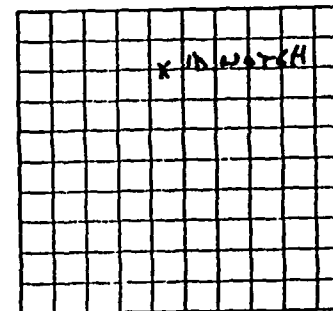
Type: RG 174  
Length: 6' # Con.: 0

Instrument Settings

Manufacturer: KRAUTKRAMER  
Model: USN 52L  
Serial No.: 00H FX2  
Linearity Due: 4-4-05  
Delay: 5.656 Range: 1.500  
Mtl. Vel.: 1370 Pulser: SINGLE  
Damping: 1000 Reject: OFF  
Rep Rate: HIGH Freq.: 2-8  
Filter: FULL Mode: SINGLE

Reference Sensitivity

Axial: 51.0 Circ: N/A



Search Unit # 2

Manufacturer: KBA  
Model: COMP-G  
Serial No.: 0114 PW  
Size: .25" Shape: ROUND  
Freq.: 5 MHz # Elm: 1  
Angle: 45° Mode: SHEAR  
Measured Angle: 45  
Wedge Style: MSWAC

Search Unit Cable

Type: RG 174  
Length: 6' # Con.: 0

Instrument Settings

Manufacturer: KRAUTKRAMER  
Model: USN 52L  
Serial No.: 00H FX2  
Linearity Due: 4-4-05  
Delay: 2.336 Range: 1.000  
Mtl. Vel.: 1262 Pulser: SINGLE  
Damping: 1000 Reject: OFF  
Rep Rate: HIGH Freq.: 2-8  
Filter: FULL Mode: SINGLE

Reference Sensitivity

Axial: N/A Circ: 18.0

809 234/240



# Examination Data Sheet

EDS No: 05-E-337-151  
CDS No: 05-C-338-151  
LDS No: 05-L-333-151  
Page: 1 of 2

Plant/Unit: <u>PILGRIM / 1</u>			System: <u>RCIC</u>			Component: <u>HE-26-F238</u>			Procedure: <u>EPP-ME-9.04</u> Revision: <u>1</u>				
Work Order: <u>03116633</u>			DWG No.: <u>ISI I 13-5</u>			<input checked="" type="checkbox"/> Carbon Steel <input type="checkbox"/> Stainless Steel			Start Time/Date: <u>1735</u> Finish Time/Date: <u>1815</u>				
Examination Area / Weld No.: <u>HE-26-F238</u>			Line No.: <u>6"-HE-26</u>			Size: <u>6"</u> Schedule: <u>.280"</u>			Lo Location: <u>N/A</u> Wo Location: <u>N/A</u>				
Ind. #	Angle	% of DAC	Indication Length			Max Location		OD SU Loc.	Scan Direct.	Remarks:			
			L1	L Max	L2	W	MP						
<u>NRT</u>													
Further Evaluation Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									Limitations: <u>ONE SIDED EXAM</u>				
Remarks <u>NO RECORDABLE IND FOR LAMINATION SCAN</u>													
Examiner: <u>[Signature]</u>			Level: <u>III</u>			Date: <u>5-28-05</u>			Examiner: <u>N/A</u>			Level: <u>N/A</u> Date: <u>N/A</u>	
Reviewer: <u>[Signature]</u>			Level: <u>III</u>			Date: <u>4-4-05</u>			ANII: <u>[Signature]</u>			Date: <u>4/21/05</u>	
Reviewed: <u>Thibault Shum</u> <u>III</u> <u>4/4/05</u>													

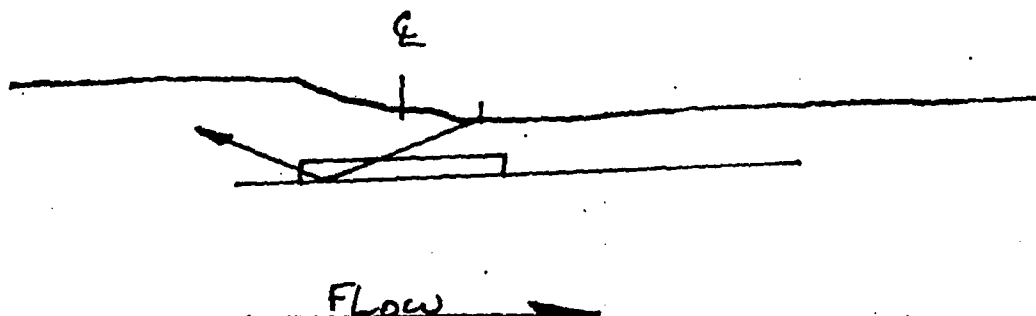
Page 235/240



# Sketch Sheet

Data Sheet No: 05-E-339-151Page: 2 of 2

Plant/Unit: <u>PILGRIM / 1</u>	System: <u>RCIC</u>	Component: <u>HE-26-F238</u>	Procedure: <u>ENN-NDE-9.04</u>
Examination Area / Weld No.: <u>HE-26-F238</u>	DWG No.: <u>ISI I 13-5</u>	Line No.: <u>6" HE-26</u>	Revision: <u>1</u>
			Work Order: <u>03116633</u>



AXIAL SCAN - 87.5%

CIRC SCAN - 50 %

TOTAL CODE REQUIRED VOLUME - 68.75%

Examiner: <u>[Signature]</u> Level: <u>III</u> Date: <u>3-28-05</u>	Examiner: <u>N/A</u> Level: <u>N/A</u> Date: <u>N/A</u>
Reviewer: <u>[Signature]</u> Level: <u>III</u> Date: <u>4-4-05</u>	ANII: <u>[Signature]</u> Date: <u>4/2/05</u>
REVISIONS: <u>Theresa [Signature]</u> <u>III</u> <u>4/4/05</u>	

Page 236/240

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**Page 237/240**



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**Page 238/240**

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**Page 239/240**