



W. R. McCollum, Jr.
Vice President

Duke Energy

Oconee Nuclear Station
7800 Rochester Highway
Seneca, SC 29672
(864) 885-3107 OFFICE
(864) 885-3564 FAX

March 11, 2002

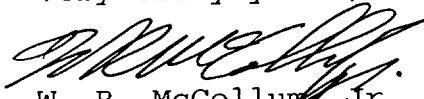
U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Subject: Duke Energy
Oconee Nuclear Station, Unit 3
Docket Nos. 50-270
Third Ten Year Inservice Inspection Interval
Request for Relief No. 02-001

Pursuant to 10 CFR 50.55a(g)(5)(iii), attached is a Request for Relief from the requirement to examine 100% of the volume specified by the ASME Boiler and Pressure Vessel Code, Section XI, 1989 Edition with no Addenda (as modified by Code Case N-460). This request is to allow Duke Energy to take credit for limited ultrasonic examinations on a specific Reactor Building penetration pipe to valve weld described in the attached request. During examination of the subject Unit 2 weld, the ultrasonic examination coverage did not meet the 90% examination requirements of Code Case N-460. Achievement of greater than 66.67% examination coverage for this weld is impractical due to piping/valve geometry, interferences, and existing examination technology. Therefore, Duke Energy requests that the NRC grant relief as authorized under 10 CFR 50.55a(g)(6)(i).

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

Very truly yours,


W. R. McCollum, Jr.
Site Vice President

Attachment

A047

U. S. Nuclear Regulatory Commission
March 11, 2002
Page 2

xc w/att: L. A. Reyes, Regional Administrator
U.S. Nuclear Regulatory Commission, Region II
Atlanta Federal Center
61 Forsyth St., SWW, Suite 23T85
Atlanta, GA 30303

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

xc(w/o attch):

Scott Freeman
Acting NRC Senior Resident Inspector
Oconee Nuclear Station

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

Duke Energy Corporation
Oconee Nuclear Station Unit 3

THIRD 10-YEAR INTERVAL REQUEST FOR RELIEF NO. 02-001

Duke Energy Corporation has determined that conformance with certain ASME Section XI Code requirements is impractical. Therefore, pursuant to 10CFR50.55a(g)(5)(iii), Duke Energy Corporation requests relief from applicable portions of the code.

Included in this request is a single Examination Category C-F-2 weld.

The Oconee Unit-3 Inservice Inspection Plan was written to the requirements of the 1989 Edition of ASME Section XI, no addenda.

The exam in this Request for Relief was performed during EOC-19, the last outage in the second period of the third ten-year interval.

Code Case N-460 applies to the examination performed during this outage.

I. System/Component(s) for Which Relief is Requested:

A. Pipe to Valve 3PR-2:

<u>ID Number</u>	<u>Item Number</u>
3-20B-21-18-18	C05.051.046

This weld is part of the Reactor Building Purge System Penetration Piping and is located in the exterior penetration room.

II. Code Requirement:

Examination Category C-F-2: ASME Section XI, Figure IWC-2500-7 (a), Examination Volume C-D-E-F.

III. Code Requirement from which Relief is Requested:

Relief is requested from the requirement to examine 100% of Volume C-D-E-F.

IV. Basis for Relief:

Pipe to Valve 3PR-2 weld 3-20B-21-18-18 (Item C05.051.046) is limited to 66.67% coverage of the required volume due to the proximity of a penetration. In order to achieve more coverage, the penetration would have to be removed or re-designed to allow scanning from both sides of the weld. That would be impractical. Reference Attachment A for a drawing of the pipe to valve 3PR-2 weld.

Reference Attachment B for a copy of the examination records for the weld addressed in this request.

V. Alternate Examinations or Testing:

The use of radiography as an alternate volumetric examination of the weld/component referenced in this request is not a viable option. Restrictions to performing radiography are primarily due to limited access for placement of film due to the proximity of the penetration. No additional examinations are planned during the current interval for weld 3-20B-21-18-18. Duke Energy Corporation will continue to use the most current ultrasonic techniques available to obtain maximum coverage for future examinations of this weld.

VI. Justification for the Granting of Relief:

The Code requires 100% volumetric examination of the subject weld. However, as discussed in Section IV above, the 100% volumetric examination is impractical. To meet Code examination requirements, modification would be necessary to allow scanning from both sides of the weld. A modification of this nature would not be practical for Duke Energy.

The subject weld was examined to the maximum extent practical using ultrasonic techniques qualified in accordance with the requirements of ASME Section XI, Appendix VIII, Supplements 2 and 3 of the 1995 Edition with the 1996 Addenda as administered by the PDI. This weld was inspected by visual examination during construction and verified to be free from unacceptable surface fabrication defects.

Duke Energy Corporation will use the existing pressure test program established for this piping segment to compliment the limited examination coverage.

VII. Implementation Schedule:

Duke Energy Corporation will continue to use ultrasonic examination procedures to obtain maximum coverage to the extent practical for inspections in future intervals of the item number referenced in Section I of this Request for Relief.

The following individuals were involved in the development of this request for relief:

B. W. Carney Jr., Oconee Engineering provided input to Sections V and VI of this request.

J. J. McArdle III, NDE Level III provided input for Sections II, III, IV, and V of this request.

L. C. Keith, Oconee ISI Plan Manager compiled and completed this request.

Sponsored By: Larry C. Keith Date: 2-18-02

Approved By: R. Kevin Rhyme Date: 2/18/02

FORM CR 27 REVISION

C.R.B. WILL, BURGE LINE

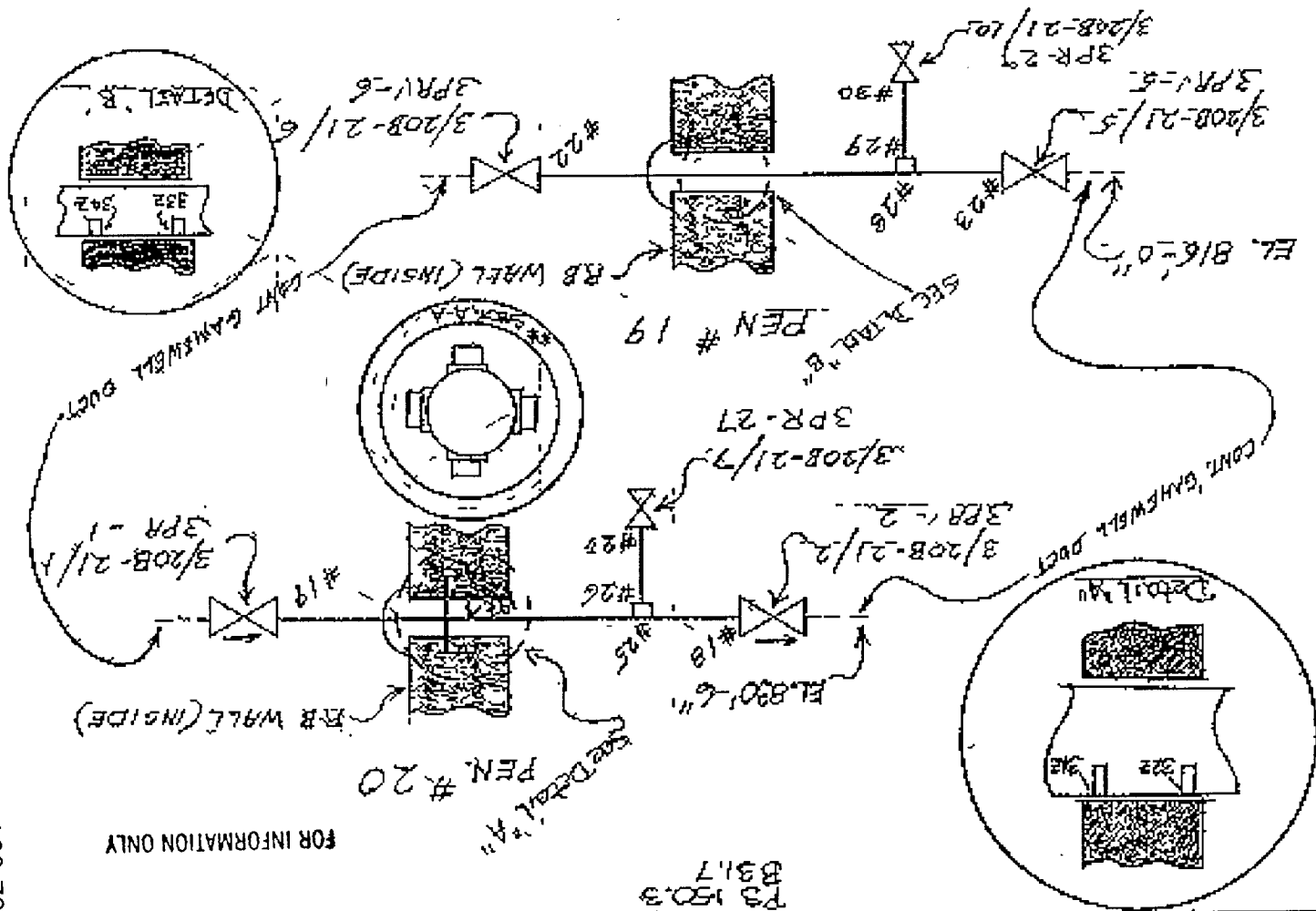
CONSTRUCTION DEPARTMENT
DUKE POWER COMPANY

PARADISE
ELENBURG
ALM

ISOMETRIC SKETCH

PROJECT: OCONEE SYSTEM 208-2/SUS SYSTEMS (1)
UNIT: 3.8.8
CLASS: C.F.E. WELDING PROCEDURE
LAST WELD NO.: 34 DATE: 7-15-
REV NO.: 3

FOR INFORMATION ONLY



*NOTE: THESE WELDS TRANSFERRED FROM ISO. 1 FT III (SYS. 208-20) *REF HQ# 3-208-208-18-09

ERN: OX009258

REF	DWG	REV	SIZE x WALL	WELD NUMBERS	NDT CODE	SC	CHANGES	NO	WELD NOS	CHANGES
2439C	1		48" x 500"	18, 19, 22, 23,	8"					
2479A	2		1" x 133"	25-30,						
2479D	2									
03-116A-2.1										
PO-116A-3										

ALL WELD NUMBERS SHOWN ABOVE ARE PRECEDED BY THE ISO. NO.

D.L.O.

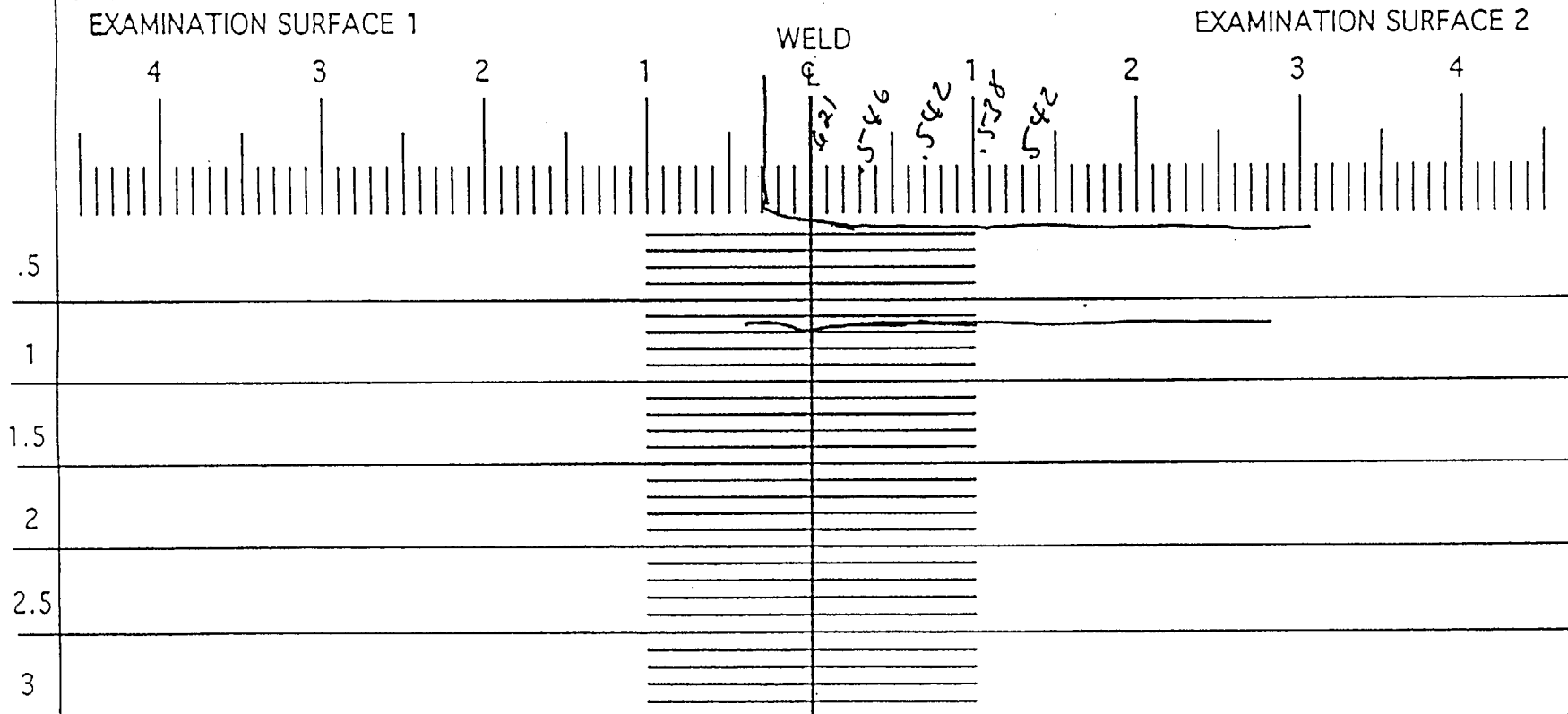
DUKE POWER COMPANY													
ULTRASONIC EXAMINATION DATA SHEET FOR LAMINAR REFLECTORS													
Station:	Oconee	Unit:	3	Component/Weld ID:	3-20B-21-18-18			Exam Start:	1152	NDE-UT-3A			
Nominal Material Thickness (in):	0.5	Weld Length (in.):	151.0"	Pyrometer S/N:	MCNDE 27217			Exam Finish:	1244	Revision 2			
Measured Material Thickness (in):	0.542	Lo:	9.1.1.1	Cal Due:	2/14/2002			Date:	10/25/2001				
Surface Condition:	AS GROUND			Calibration Sheet No:	0103013			Configuration:	Pipe to Valve (Valve 3PR-2)				
Examiner: Jay A. Eaton	Level: III						VALVE	Flow	PIPE				
Examiner: James L. Panel	Level: II						S1	to	S2				
Procedure:	NDE-640			Rev:	1	FC:	*						
IND NO.	Ampl	L1	W1	Mp1	W2	Mp2	L2	W1	Mp1	W2	Mp2	Exam Surf.	Damps
	z rem BW LOB	z rem BW LOB	z rem BW LOB	z rem BW LOB	z rem BW LOB	z rem BW LOB	z rem BW LOB	z rem BW LOB	z rem BW LOB	z rem BW LOB	z rem BW LOB		
NRI	0°												

Remarks: * 95-18, 95-19		Limitations: see NDE-UT-4 <input type="checkbox"/> None: <input type="checkbox"/>		Sheet 1 of 10
Reviewed By: Gary Moss	Level: II	Date: 10-25-01	Authorized Inspector: [Signature]	Item No: C05.051.046
			Date: 10/30/01	

DUKE POWER COMPANY
UT PROFILE/PLOT SHEET

NDE-UT-5

Revision 1



Component ID/Weld No. 3-20B-21-18-18

Remarks:

Item No: C05.051.046

Examiner:

Level: III

Date: 10/25/01

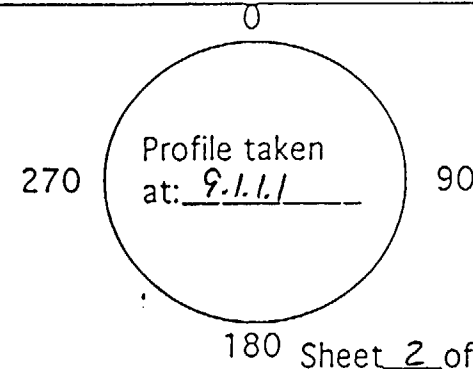
Reviewed By:

Level: B

Date: 10-25-01

Authorized Inspector:

Date: 10/30/01



180 Sheet 2 of 10

DUKE POWER COMPANY											FORM NDE-UT-10	
ULTRASONIC INDICATION RECORD FOR PIPING											Revision 0	
Station: Ocone			Unit: 3		Component/Weld ID: 3-20B-21-18-18					Date: 10/25/2001		
Surface Condition: AS GROUND					Item No: C05.051.046							
Examiner: Jay A. Eaton			Level: III		Procedure: NDE-600			Rev: 14		FC: N/A		
Examiner: James L. Panel			Level: II		Lo: 9.1.1.1			Configuration: Pipe to Valve (Valve 3PR-2)				
Calibration Sheet No: 0103012					S2 to S1 Scan Surface: OD							
IND #		% FSH	Mp Max	W Max	L Max	L1 20 % FSH	L2 20 % FSH	Beam Dir.	Exam Surf.	Scan	Damps	Remarks
1	4	60	1.3	1.0"	6.0"	360°	INT.IND	1	2	AXIAL	NO	

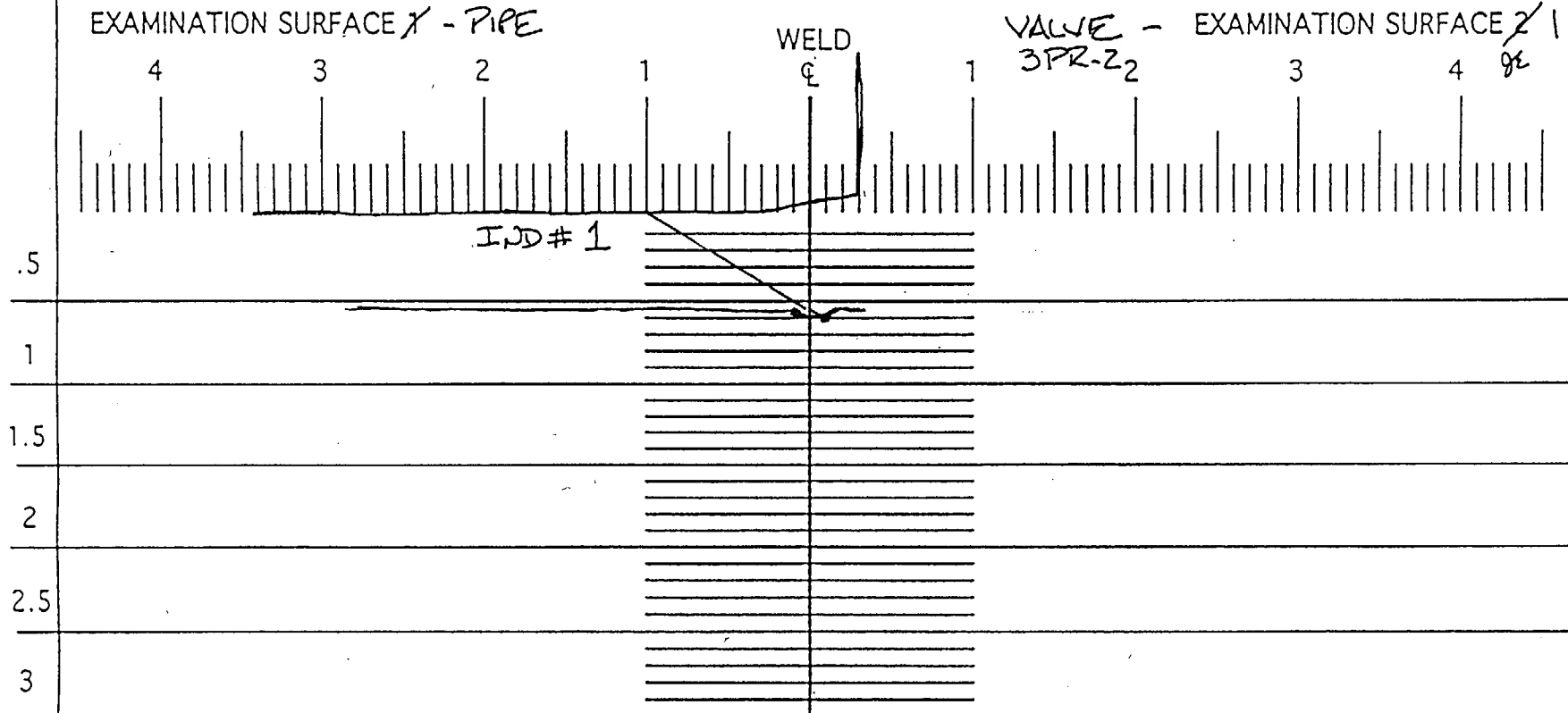
Attachment B
 Request for Relief 02-001
 Page 3 of 10

Reviewed By: Gary Moss	Level: D	Date: 10-25-01	Authorized Inspector: [Signature]	Date: 10/30/01	Sheet 3 of 10
------------------------	----------	----------------	-----------------------------------	----------------	---------------

DUKE POWER COMPANY
UT PROFILE/PLOT SHEET

NDE-UT-5

Revision 1



Component ID/Weld No. 3-20B-21-18-18

: Remarks:

Examiner:

Reviewed By:

Authorized Inspector:

Item No: COS.051.046

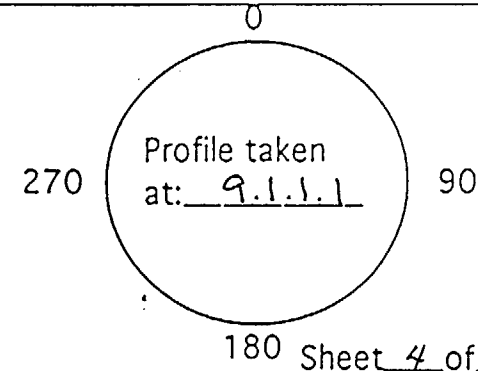
Level: III

Date: 10/25/01

Level: S

Date: 10-25-01

Date: 10/30/01



Sheet 4 of 6

DUKE POWER COMPANY ISI LIMITATION REPORT

FORM NDE-UT-4

Revision 1

Component/Weld ID: 3-20B-21-18-18		Item No: C05.051.046		Remarks:	
<input checked="" type="checkbox"/> NO SCAN <input type="checkbox"/> LIMITED SCAN		SURFACE <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2		BEAM DIRECTION <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> cw <input checked="" type="checkbox"/> ccw	
FROM L <u> N/A </u> to L <u> N/A </u>		INCHES FROM WO <u> .2" </u> to <u> BEYOND </u>		DUE TO VALVE CONFIGURATION	
ANGLE: <input checked="" type="checkbox"/> 0 <input checked="" type="checkbox"/> 45 <input checked="" type="checkbox"/> 60 <input type="checkbox"/> Other <u> </u>		FROM <u> 0 </u> DEG to <u> 360 </u> DEG			
<input type="checkbox"/> NO SCAN <input type="checkbox"/> LIMITED SCAN		SURFACE <input type="checkbox"/> 1 <input type="checkbox"/> 2		BEAM DIRECTION <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> cw <input type="checkbox"/> ccw	
FROM L <u> </u> to L <u> </u>		INCHES FROM WO <u> </u> to <u> </u>			
ANGLE: <input type="checkbox"/> 0 <input type="checkbox"/> 45 <input type="checkbox"/> 60 <input type="checkbox"/> Other <u> </u>		FROM <u> </u> DEG to <u> </u> DEG			
<input type="checkbox"/> NO SCAN <input type="checkbox"/> LIMITED SCAN		SURFACE <input type="checkbox"/> 1 <input type="checkbox"/> 2		BEAM DIRECTION <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> cw <input type="checkbox"/> ccw	
FROM L <u> </u> to L <u> </u>		INCHES FROM WO <u> </u> to <u> </u>			
ANGLE: <input type="checkbox"/> 0 <input type="checkbox"/> 45 <input type="checkbox"/> 60 <input type="checkbox"/> Other <u> </u>		FROM <u> </u> DEG to <u> </u> DEG			
<input type="checkbox"/> NO SCAN <input type="checkbox"/> LIMITED SCAN		SURFACE <input type="checkbox"/> 1 <input type="checkbox"/> 2		BEAM DIRECTION <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> cw <input type="checkbox"/> ccw	
FROM L <u> </u> to L <u> </u>		INCHES FROM WO <u> </u> to <u> </u>			
ANGLE: <input type="checkbox"/> 0 <input type="checkbox"/> 45 <input type="checkbox"/> 60 <input type="checkbox"/> Other <u> </u>		FROM <u> </u> DEG to <u> </u> DEG			

Prepared By: <u>[Signature]</u>	Level: <u>III</u>	Date: <u>10/25/01</u>	Sketch(s) attached <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	Sheet <u>5</u> of <u>10</u>
Reviewed By: <u>[Signature]</u>	Date: <u>10-25-01</u>	Authorized Inspector: <u>[Signature]</u>	Date: <u>10/25/01</u>	

DUKE POWER COMPANY				Form NDE-UT-8	
ULTRASONIC INDICATION RESOLUTION SHEET				Revision 1	
<p>Acceptance Standard:</p> <p>INDICATION #1 WAS DETERMINED TO BE A GEOMETRIC REFLECTOR DUE TO I.D. WELD ROOT GEOMETRY. THIS WAS CONFIRMED BY 1. THE SIGNAL WOULD NOT HOLD UP TO SKEWING 2. THE 70° SHEAR WAVE RESPONSE WAS 10% FSH VERSES 60% FSH WITH THE 60° SHEAR WAVE 3. PLOTTING OF THE INDICATION.</p>					
Item No: C05.051.046					
Acceptable Indications: #1					
Rejectable Indications: NONE					
These indications have been compared with previous ultrasonic data <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No previous data available					
Examiner:		Level:		Date:	
Jay A. Eaton		III		10/25/2001	
Reviewer:		Level:		Date:	
Jay A. Eaton		III		10-25-01	
Authorized Inspector:				Date:	
[Signature]				10/30/01	

DUKE POWER COMPANY						NDE-91-1	
Limited Examination Coverage Worksheet						Revision 0	
Examination Volume/Area Defined							
<input checked="" type="checkbox"/> Base Metal <input checked="" type="checkbox"/> Weld <input type="checkbox"/> Near Surface <input type="checkbox"/> Bolting <input type="checkbox"/> Inner Radius							
Area Calculation				Volume Calculation			
SEE DRAWINGS 0.16 SQ.IN.				0.16 SQ.IN. X 151 IN. = 24.16 CU.IN.			
Coverage Calculations							
Scan #	Angle	Beam Direction	Area Examined (sq.in.)	Length Examined (in.)	Volume Examined (cu.in.)	Volume Required (cu.in.)	Percent Coverage
1	60	1	.14	151	21.14	24.16	
2	45	CW	.09	151	13.59	24.16	
3	45	CCW	.09	151	13.59	24.16	
					48.32	72.48	66.67

Original

Initial <input type="checkbox"/>	Final <input checked="" type="checkbox"/>
ANII <u>W E H</u>	DATE <u>10/30/01</u>
HSBI & I Co.	

Resign 12/28/02

Prepared By:		Level: <u>III</u>	Date: <u>1/22/02</u>
Reviewed By: <u>James J. McQuillen</u>		Level: <u>III</u>	Date: <u>1-22-02</u>

Item No:	C05.051.046
----------	-------------

DUKE POWER COMPANY
UT PROFILE/PLOT SHEET

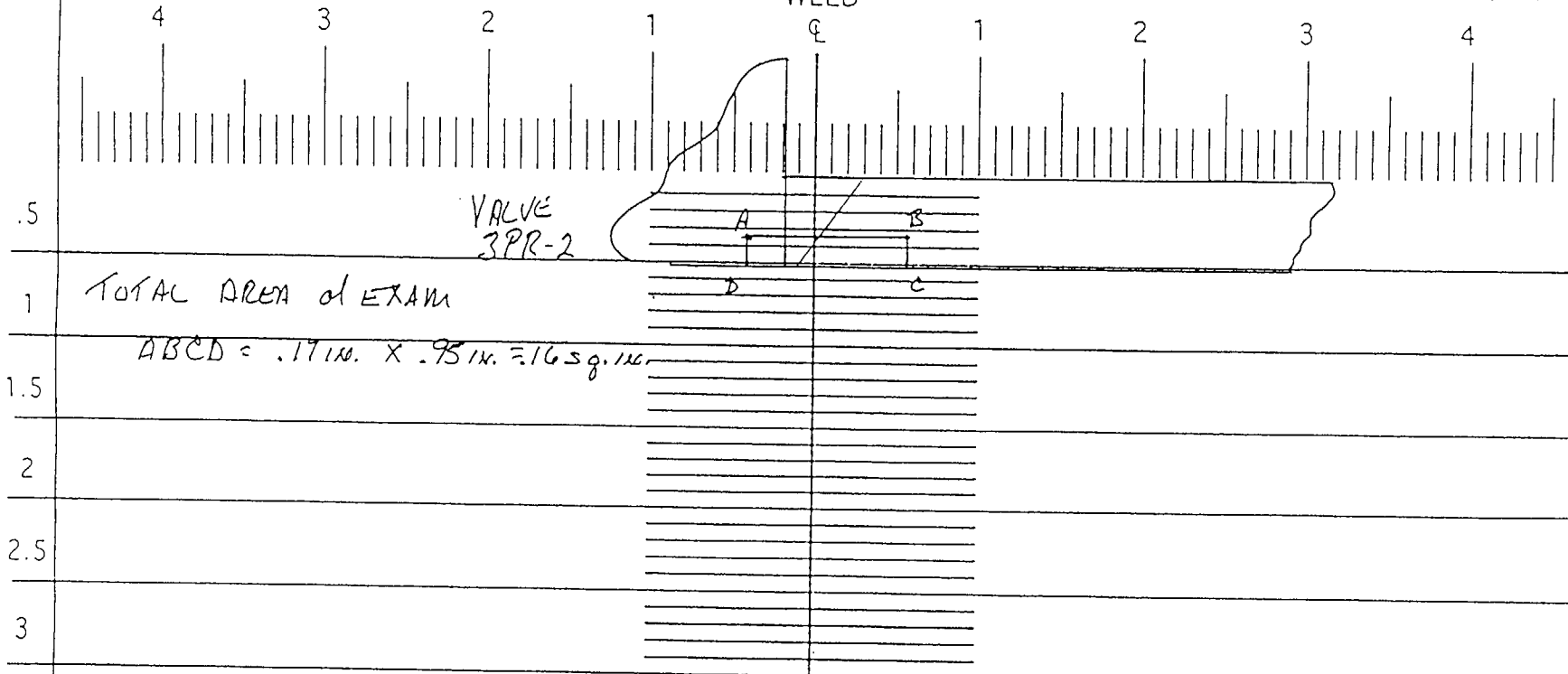
NDE-UT-5

Revision 1

EXAMINATION SURFACE 1

WELD

EXAMINATION SURFACE 2



Component ID/Weld No. 3-20B-21-18-18

: Remarks:

Examiner:

Reviewed By:

Authorized Inspector:

Item No: C05.051.046

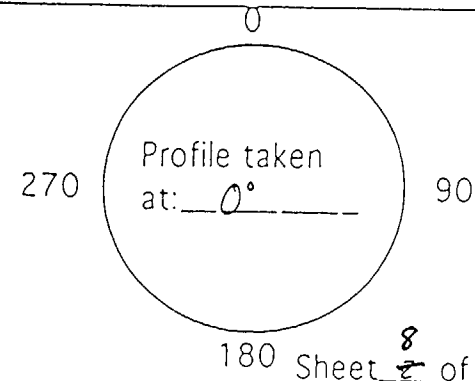
Level: III

Level: IV

Date: 10/25/01

Date: 10-25-01

Date: 10-28-01



Sheet 8 of 10

DUKE POWER COMPANY
UT PROFILE/PLOT SHEET

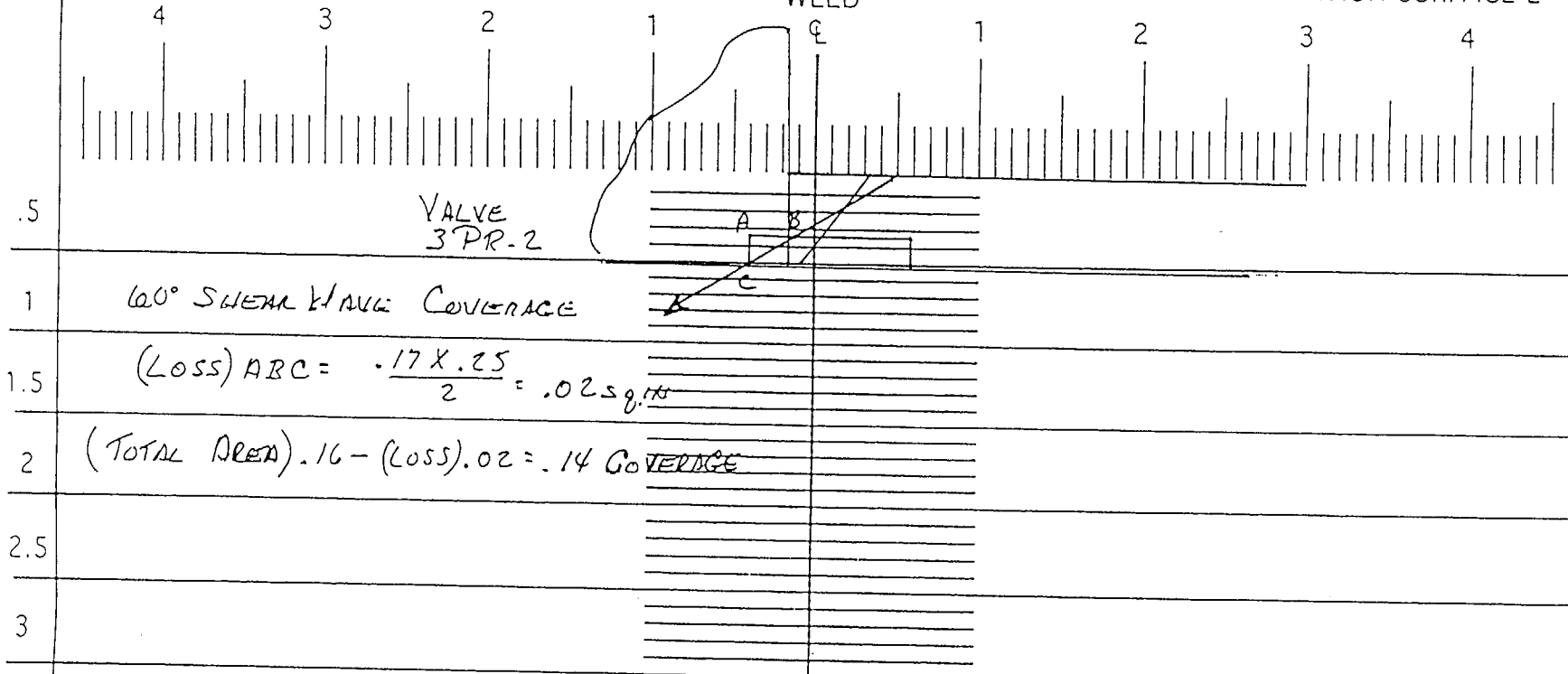
NDE-UT-5

Revision 1

EXAMINATION SURFACE 1

WELD

EXAMINATION SURFACE 2



Component ID/Weld No. 3-20B-21-18-18

Remarks:

Examiner:

Reviewed By:

Authorized Inspector:

Item No: COS.051.046

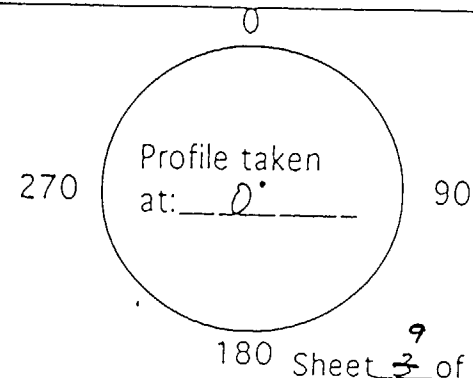
Level: III

Level: IV

Date: 10/25/01

Date: 10-25-01

Date: 10/30/01



Sheet 3 of 4

DUKE POWER COMPANY
UT PROFILE/PLOT SHEET

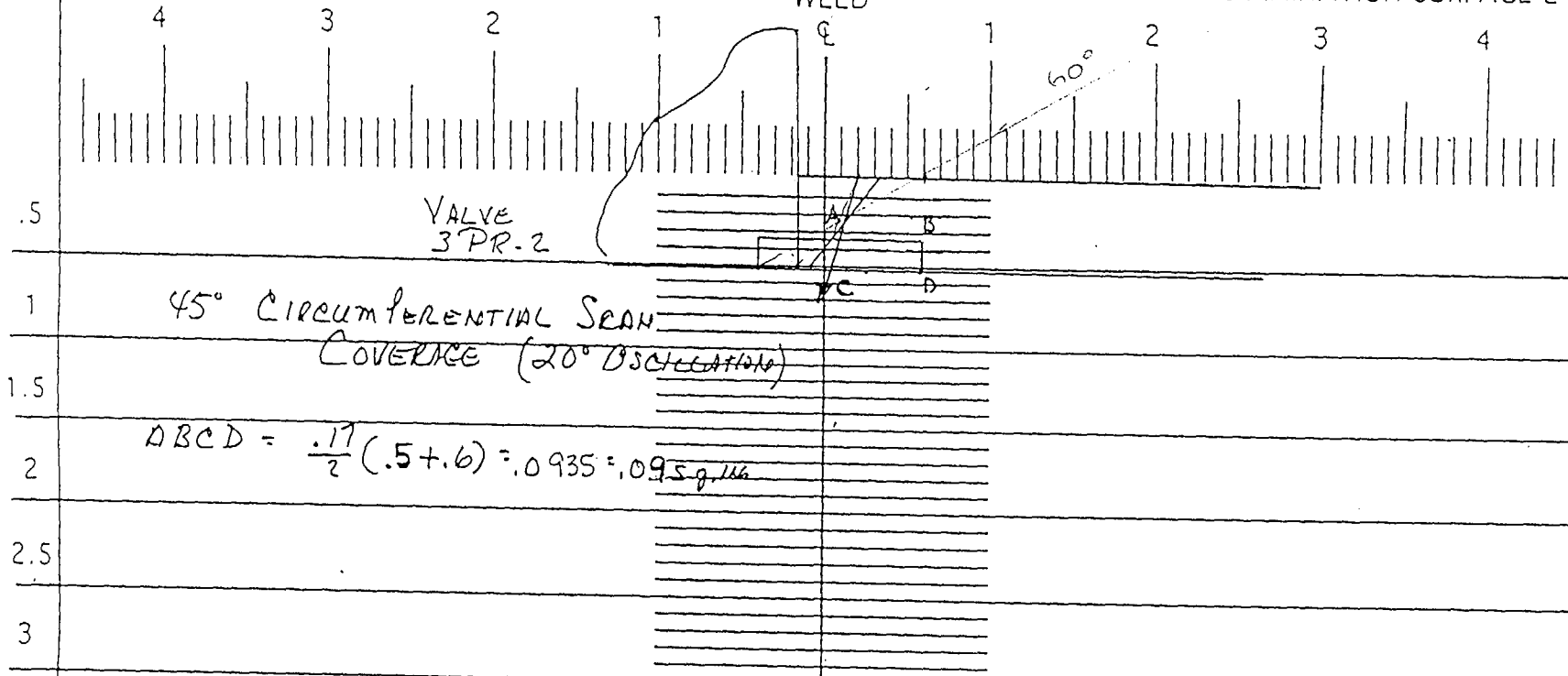
NDE-UT-5

Revision 1

EXAMINATION SURFACE 1

WELD

EXAMINATION SURFACE 2



Component ID/Weld No.

3-20B-21-18-18

Remarks:

Examiner:

Item No: COS.051.046

Level: III

Date: 1/22/02

Reviewed By:

Level: II

Date: 1-22-02

Authorized Inspector:

Date: 1/-28-02

270

Profile taken
at: 0°

90

180

Sheet 10 of 10

For WSH 10/1