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Westinghouse
Nuclear Services Division

Inservice Examination Report of the Indian Point Unit No. 3 Nuclear Power Plant for New York Power Authority 123 Main Street White Plains, New York 10601

2nd Interval, 3rd Period, 2nd Outage

1999

FINAL REPORT

Volume 2 of 2

EXAMINATION PROGRAM REPORT

OF THE

INDIAN POINT UNIT NO. 3 NUCLEAR POWER PLANT

P.O. BOX 215

BUCHANAN, NEW YORK 10511

FOR

NEW YORK POWER AUTHORITY

123 MAIN STREET

WHITE PLAINS, NEW YORK 10601

COMMERCIAL SERVICE DATE: AUGUST 30, 1976

OPERATING CAPACITY: 1025 Mwe

2ND INTERVAL; 3RD PERIOD; 2ND OUTAGE

REPORT DATE: DECEMBER, 1999

WESDYNE INTERNATIONAL
Waltz Mill Service Center
PO Box 409
Madison, Pa. 15663

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PRE – EXAM

LINEARITY

RECORD

SYSTEM 16517

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 1 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	94	47	42	to	52	49
+1dB	87	43.5	38.5	to	48.5	44
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	31
-4dB	50	25	20	to	30	24
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	11	6	to	16	10
-14dB	16	8	3	to	13	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 2 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	94	47	42	to	52	49
+1dB	87	43.5	38.5	to	48.5	44
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	31
-4dB	50	25	20	to	30	24
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	12
-12dB	21	11	6	to	16	10
-14dB	16	8	3	to	13	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 3 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	94	47	42	to	52	49
+1dB	87	43.5	38.5	to	48.5	44
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	31
-4dB	50	25	20	to	30	24
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	12
-12dB	21	11	6	to	16	10
-14dB	16	8	3	to	13	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 4 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	95	47.5	42.5	to	52.5	50
+1dB	89	44.5	39.5	to	49.5	46
xxxx	80	40	35	to	45	40
-2dB	66	33	28	to	38	32
-4dB	52	26	21	to	31	26
-6dB	41	20.5	15.5	to	25.5	21
-8dB	33	16.5	11.5	to	21.5	16
-10dB	26	13	8	to	18	13
-12dB	21	11	6	to	16	10
-14dB	16	8	3	to	13	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 5 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	94	47	42	to	52	50
+1dB	87	43.5	38.5	to	48.5	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	11	6	to	16	10
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 6 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	95	47.5	42.5	to	52.5	48
+1dB	87	43.5	38.5	to	48.5	45
xxxx	80	40	35	to	45	40
-2dB	63	31.5	26.5	to	36.5	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	25	12.5	7.5	to	17.5	12
-12dB	21	11	6	to	16	10
-14dB	16	8	3	to	13	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 7 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	94	47	42	to	52	50
+1dB	88	44	39	to	49	45
xxxx	80	40	35	to	45	40
-2dB	65	32.5	27.5	to	37.5	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	21
-8dB	33	16.5	11.5	to	21.5	16
-10dB	26	13	8	to	18	13
-12dB	21	11	6	to	16	10
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 8 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	95	47.5	42.5	to	52.5	50
+1dB	88	44	39	to	49	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	12
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 9 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	94	47	42	to	52	50
+1dB	87	43.5	38.5	to	48.5	45
xxxx	80	40	35	to	45	40
-2dB	63	31.5	26.5	to	36.5	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 10 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	93	46.5	41.5	to	51.5	50
+1dB	87	43.5	38.5	to	48.5	45
xxxx	80	40	35	to	45	40
-2dB	63	31.5	26.5	to	36.5	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 11 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	93	46.5	41.5	to	51.5	50
+1dB	87	43.5	38.5	to	48.5	45
xxxx	80	40	35	to	45	40
-2dB	63	31.5	26.5	to	36.5	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	16	8	3	to	13	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 12 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	93	46.5	41.5	to	51.5	50
+1dB	87	43.5	38.5	to	48.5	45
xxxx	80	40	35	to	45	40
-2dB	63	31.5	26.5	to	36.5	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 13 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	93	46.5	41.5	to	51.5	50
+1dB	87	43.5	38.5	to	48.5	45
xxxx	80	40	35	to	45	40
-2dB	63	31.5	26.5	to	36.5	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 14 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	94	47	42	to	52	50
+1dB	87	43.5	38.5	to	48.5	46
xxxx	80	40	35	to	45	41
-2dB	63	31.5	26.5	to	36.5	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 15 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	93	46.5	41.5	to	51.5	50
+1dB	87	43.5	38.5	to	48.5	46
xxxx	80	40	35	to	45	41
-2dB	63	31.5	26.5	to	36.5	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 16517 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 16 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	94	47	42	to	52	50
+1dB	87	43.5	38.5	to	48.5	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	12
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 1 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-43 | THICKNESS: 11.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
D	80	65
E	64	126
F	40	194
F (1 1/4)	20	310
NOTCH	DAC + 11dB	253

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: UPPER11AX	PULSER / RECEIVER FILE: UPPER11
CHANNEL NO.: 1	PULSER / RECEIVER CHANNEL NO.: 1
TRANSDUCER S.N.: 00CR1C	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 60	ANGLE: 45°S
DATA FILE ID: CALUP1145-01	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: UPPER11

CHANNEL: 1 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 14

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	72	38
2	134	40
3	197	42
4	258	44
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	82	66.4
2	38	128.8
3	7	212.8

PULSER / RECEIVER FILE: UPPER11
GAIN: 32
SLED POSITION: US-1

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 1 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-43 | THICKNESS: 11.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
D	80	64
E	52	126
F	40	190
F (1 1/4)	20	306
NOTCH	DAC + 11dB	255

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: UPPER11AX	PULSER / RECEIVER FILE: UPPER11
CHANNEL NO.: 2	PULSER / RECEIVER CHANNEL NO.: 2
TRANSDUCER S.N.: 00F0RX	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 57	ANGLE: 45°S
DATA FILE ID: CALUP1145-02	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: UPPER11

CHANNEL: 2 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 14

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	72	37
2	134	39.5
3	197	41.5
4	258	44
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	82	65.6
2	56	121.6
3	56	238.6

PULSER / RECEIVER FILE: UPPER11
GAIN: 32
SLED POSITION: US-2

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 1 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-43 | THICKNESS: 11.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
D	80	92
E	34	181
F	16	260
F (1 1/4)	6	445
NOTCH	DAC + 4dB	332

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: UPPER11AX	PULSER / RECEIVER FILE: UPPER11
CHANNEL NO.: 3	PULSER / RECEIVER CHANNEL NO.: 9
TRANSDUCER S.N.: 00F0RT	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 63	ANGLE: 60°S
DATA FILE ID: CALUP1160-03	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: UPPER11

CHANNEL: 9 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	92	34.5
2	181	40
3	260	42
4	358	45
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	73.8
2	8	130
3	38	250.4

PULSER / RECEIVER FILE: UPPER11
GAIN: 29
SLED POSITION: US-3

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 1 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-43 | THICKNESS: 11.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
D	80	92
E	30	179
F	15	262
F (1 1/4)	5	450
NOTCH	DAC + 2dB	330

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: UPPER11AX	PULSER / RECEIVER FILE: UPPER11
CHANNEL NO.: 4	PULSER / RECEIVER CHANNEL NO.: 4
TRANSDUCER S.N.: 00F0RR	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 62	ANGLE: 60°S
DATA FILE ID: CALUP1160-04	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: UPPER11

CHANNEL: 4 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	92	33.5
2	180	39
3	268	41.5
4	358	44.7
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	73.6
2	12	132
3	62	250.4

PULSER / RECEIVER FILE: UPPER11
GAIN: 29
SLED POSITION: US-4

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 1 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 78° F

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

REFLECTOR	AMPLITUDE	TIME
NS1	80	6.4
NS2	27	12.8
NS3	5	26.4

MULTI CHANNEL FILE: UPPER11AX	PULSER / RECEIVER FILE: UPPER11
CHANNEL NO.: 5	PULSER / RECEIVER CHANNEL NO.: 5
TRANSDUCER S.N.: 00CRDW	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 3(8x20)mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 28	ANGLE: 70°L
DATA FILE ID: CALUP1170-05	
SOFTWARE REV.: 1.1	

SIGNATURE: Larry C. Hines | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: UPPER11

CHANNEL: 5 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	16	13
2	23	20.5
3	30	33.5
4	37	33.5
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	15	6
2	80	12.8
3	9	26.8

PULSER / RECEIVER FILE: UPPER11
GAIN: 21
SLED POSITION: US-5

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 1 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 78° F

REFLECTOR	AMPLITUDE	TIME
NS1	80	6.4
NS2	30	13
NS3	8	27

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: UPPER11AX	PULSER / RECEIVER FILE: UPPER11
CHANNEL NO.: 6	PULSER / RECEIVER CHANNEL NO.: 6
TRANSDUCER S.N.: 00C950	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 3(8x20)mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 23	ANGLE: 70°L
DATA FILE ID: CALUP1170-06	
SOFTWARE REV.: 1.1	

SIGNATURE: Larry C Hines | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: UPPER11

CHANNEL: 6 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	17	18
2	23	25.5
3	30	34
4	37	34
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	16	5
2	82	13
3	22	28.8

PULSER / RECEIVER FILE: UPPER11
GAIN: 21
SLED POSITION: US-6

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 1 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-43 | THICKNESS: 11.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 78° F

REFLECTOR	AMPLITUDE	TIME
A	80	24
B	65	47
C	50	70
B.W.	100% + 6dB	96

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: UPPER11AX	PULSER / RECEIVER FILE: UPPER11
CHANNEL NO.: 7	PULSER / RECEIVER CHANNEL NO.: 7
TRANSDUCER S.N.: 00DX6F	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 1.0" DIA.	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 33	ANGLE: 0°
DATA FILE ID: CALUP110-07.UTA	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: UPPER11

CHANNEL: 7 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 6

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	27	17
2	51	21
3	74	23
4	99	17
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	82	22.8
2	26	46.8
3	5	78.6

PULSER / RECEIVER FILE: UPPER11
GAIN: 22
SLED POSITION: US-7

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 1 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-43 | THICKNESS: 11.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 78° F

REFLECTOR	AMPLITUDE	TIME
A	80	24
B	36	47
C	32	70
B.W.	100% + 4dB	96

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: UPPER11AX	PULSER / RECEIVER FILE: UPPER11
CHANNEL NO.: 8	PULSER / RECEIVER CHANNEL NO.: 8
TRANSDUCER S.N.: 00CR1K	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 1.0" DIA.	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 27	ANGLE: 0°
DATA FILE ID: CALUP110-08.UTA	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: UPPER11

CHANNEL: 8 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 6

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	26	14
2	51	21
3	74	22
4	98	18
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	22.8
2	12	47.4
3	2	71.4

PULSER / RECEIVER FILE: UPPER11

GAIN: 7

SLED POSITION: US-8

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2030	9-26-99			
LCH	0825	9-27-99			
FSH	1615	9-27-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 7 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-39 | THICKNESS: 14.0"

PROBE S/N: N/A

THERMOMETER S/N: 38102

ENTRY SURFACE USED: A (CLAD ID) | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 78° F

REFLECTOR	AMPLITUDE	TIME
A	80	61.2
B	45	91.8
C	36	105

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE NOZSHELL	PULSER / RECEIVER FILE NOZSHELL
CHANNEL NO. 1	PULSER / RECEIVER CHANNEL NO. 1
TRANSDUCER S.N. 00CR02	PULSER / RECEIVER ID 16517
SIZE (DIA.) 28x24mm	TRANSDUCER FREQUENCY 2.25 MHz
GAIN 45	ANGLE 10°L
DATA FILE ID CALNS10-01.UTA	CALNS10(c)-01.UTA
SOFTWARE REV. 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: NOZ-SHELL

CHANNEL: 1 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	47	17.5
2	92	23.7
3	135	22
4	179	19.5
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	33
2	35	88
3	80	128

PULSER / RECEIVER FILE NOZ-SHELL-STD
GAIN 30
SLED POSITION N1

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 7 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-39 | THICKNESS: 14.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: A (CLAD ID) | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 78° F

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

REFLECTOR	AMPLITUDE	TIME
A	80	92.8
B	50	146.4
C	45	178

MULTI CHANNEL FILE: NOZSHELL	PULSER / RECEIVER FILE: NOZSHELL
CHANNEL NO.: 2	PULSER / RECEIVER CHANNEL NO.: 2
TRANSDUCER S.N.: 00C4YT	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 63	ANGLE: 50°L
DATA FILE ID: CALNS50-02.UTA	CALNS50(c)-02.UTA
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: NOZ-SHELL

CHANNEL: 2 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	91	35
2	158	37.5
3	225	38.5
4	290	37
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	72
2	80	132
3	27	243

PULSER / RECEIVER FILE: NOZ-SHELL-STD
GAIN: 38
SLED POSITION: N3

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 8 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. ISI-IR-1 | THICKNESS: 5.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: A | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

REFLECTOR	AMPLITUDE	TIME
N2	80	6

MULTI CHANNEL FILE: IR	PULSER / RECEIVER FILE: IR
CHANNEL NO.: 1	PULSER / RECEIVER CHANNEL NO.: 6
TRANSDUCER S.N.: 00CRFJ	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 2(23x9)mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 50	ANGLE: 70°L
DATA FILE ID: CAL IR CW	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: IR

CHANNEL: 6 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	20	22
2	26	22
3	32	22
4	39	22
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	10	3.6
2	25	11.6
3	80	20

PULSER / RECEIVER FILE: IR-STD
GAIN: 33
SLED POSITION: N6 CW

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 8 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. ISI-IR-1 | THICKNESS: 5.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: A | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
N2	80	6

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: IR	PULSER / RECEIVER FILE: IR
CHANNEL NO.: 2	PULSER / RECEIVER CHANNEL NO.: 7
TRANSDUCER S.N.: 00CRFH	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 2(23x9)mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 50	ANGLE: 70°L
DATA FILE ID: CAL IR CCW	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: IR

CHANNEL: 7 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	20	22
2	26	22
3	32	22
4	39	22
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	28	1.6
2	80	6.8
3	18	20.4

PULSER / RECEIVER FILE: IR-STD
GAIN: 27
SLED POSITION: N7 CCW

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

POST – EXAM

LINEARITY

RECORD

SYSTEM 16517

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 16517 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N J14032 (SP)

CHANNEL # 1 REFERENCE BLOCK TYPE RHOMPAS S/N 796484

ACQUISITION CHASSIS # 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	89	44.5	39.5	to	49.5	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	25
-6dB	42	21	16	to	26	21
-8dB	33	16.5	11.5	to	21.5	16
-10dB	27	13.5	8.5	to	18.5	13
-12dB	22	11	6	to	16	10
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	42	32% - 48%
80 %	-12 dB	22	16% - 24%
40 %	+ 6 dB	78	64% - 96%
20 %	+ 12 dB	78	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 16517 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N J14032 (SP)

CHANNEL # 2 REFERENCE BLOCK TYPE RHOMPAS S/N 796484

ACQUISITION CHASSIS # 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	88	44	39	to	49	44
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	42	21	16	to	26	21
-8dB	34	17	12	to	22	17
-10dB	28	14	9	to	19	13
-12dB	22	11	6	to	16	11
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	42	32% - 48%
80 %	-12 dB	22	16% - 24%
40 %	+ 6 dB	78	64% - 96%
20 %	+ 12 dB	79	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 16517 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N J14032 (SP)

CHANNEL # 4 REFERENCE BLOCK TYPE RHOMPAS S/N 796484

ACQUISITION CHASSIS # 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	42	21	16	to	26	21
-8dB	32	16	11	to	21	16
-10dB	28	14	9	to	19	14
-12dB	22	11	6	to	16	11
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	42	32% - 48%
80 %	-12 dB	22	16% - 24%
40 %	+ 6 dB	77	64% - 96%
20 %	+ 12 dB	76	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 16517 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N J14032 (SP)

CHANNEL # 5 REFERENCE BLOCK TYPE RHOMPAS S/N 796484

ACQUISITION CHASSIS # 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	99	49.5	44.5	to	54.5	50
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	20	10	5	to	15	10
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	20	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 16517 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N J14032 (SP)

CHANNEL # 6 REFERENCE BLOCK TYPE RHOMPAS S/N 796484

ACQUISITION CHASSIS # 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	89	44.5	39.5	to	49.5	45
xxxx	80	40	35	to	45	40
-2dB	62	31	26	to	36	31
-4dB	51	25.5	20.5	to	30.5	25
-6dB	41	20.5	15.5	to	25.5	21
-8dB	32	16	11	to	21	16
-10dB	27	13.5	8.5	to	18.5	14
-12dB	21	10.5	5.5	to	15.5	11
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	81	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 16517 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N J14032 (SP)

CHANNEL # 7 REFERENCE BLOCK TYPE RHOMPAS S/N 796484

ACQUISITION CHASSIS # 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	42	21	16	to	26	21
-8dB	33	16.5	11.5	to	21.5	17
-10dB	28	14	9	to	19	14
-12dB	22	11	6	to	16	11
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	42	32% - 48%
80 %	-12 dB	22	16% - 24%
40 %	+ 6 dB	79	64% - 96%
20 %	+ 12 dB	78	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 16517 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N J14032 (SP)

CHANNEL # 8 REFERENCE BLOCK TYPE RHOMPAS S/N 796484

ACQUISITION CHASSIS # 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	40	20	15	to	25	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	20	10	5	to	15	10
-14dB	16	8	3	to	13	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	20	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 16517 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N J14032 (SP)

CHANNEL # 9 REFERENCE BLOCK TYPE RHOMPAS S/N 796484

ACQUISITION CHASSIS # 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	42	21	16	to	26	21
-8dB	34	17	12	to	22	17
-10dB	27	13.5	8.5	to	18.5	14
-12dB	22	11	6	to	16	11
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	42	32% - 48%
80 %	-12 dB	22	16% - 24%
40 %	+ 6 dB	79	64% - 96%
20 %	+ 12 dB	77	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 16517 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N J14032 (SP)

CHANNEL # 10 REFERENCE BLOCK TYPE RHOMPAS S/N 796484

ACQUISITION CHASSIS # 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	48
+1dB	89	44.5	39.5	to	49.5	44
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	42	21	16	to	26	21
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	11
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	42	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	78	64% - 96%
20 %	+ 12 dB	78	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 16517 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N J14032 (SP)

CHANNEL # 11 REFERENCE BLOCK TYPE RHOMPAS S/N 796484

ACQUISITION CHASSIS # 1954 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	48
+1dB	89	44.5	39.5	to	49.5	44
xxxx	80	40	35	to	45	40
-2dB	62	31	26	to	36	32
-4dB	52	26	21	to	31	26
-6dB	40	20	15	to	25	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	20	10	5	to	15	10
-14dB	17	8.5	3.5	to	13.5	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	20	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 9 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-46 | THICKNESS: 2.5" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: A | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
I	80	12
H	34	21

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE NOZZLEAXIAL	PULSER / RECEIVER FILE NOZAX
CHANNEL NO. 1	PULSER / RECEIVER CHANNEL NO. 4
TRANSDUCER S.N. 00F0F2	PULSER / RECEIVER ID 16517
SIZE (DIA.) 2(23x9)mm	TRANSDUCER FREQUENCY 2.25 MHz
GAIN 45	ANGLE 70°L
DATA FILE ID CALSE70IN-01 CALSE70INH-01.UTA	
SOFTWARE REV. 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: NOZ-AX

CHANNEL: 4 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	12	17
2	19	17
3	26	24
4	32	24
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	7	8
2	27	14.4
3	80	23.6

PULSER / RECEIVER FILE NOZ-AX-STD
GAIN 21
SLED POSITION N4 IN

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 9 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-46 | THICKNESS: 2.5" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: A | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
I	80	13
H	25	19.6

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE NOZZLEAXIAL	PULSER / RECEIVER FILE NOZAX
CHANNEL NO. 2	PULSER / RECEIVER CHANNEL NO. 5
TRANSDUCER S.N. 00F0F3	PULSER / RECEIVER ID 16517
SIZE (DIA.) 2(23x9)mm	TRANSDUCER FREQUENCY 2.25 MHz
GAIN 43	ANGLE 70°L
DATA FILE ID CALSE70OUT-02	CALSE70OUTH-02
SOFTWARE REV. 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: NOZ-AX

CHANNEL: 5 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	14	15
2	20	15
3	27	23
4	34	23
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	5	7.2
2	37	12.8
3	80	22.4

PULSER / RECEIVER FILE NOZ-AX-STD
GAIN 21
SLED POSITION N5 OUT

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 9 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

PROBE S/N: N/A

CALIBRATION BLOCK: IDENT. INT-46 | THICKNESS: 2.5" | THERMOMETER S/N: 38102

ENTRY SURFACE USED: A | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
I	80	12
H	25	19.6

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE	PULSER / RECEIVER FILE
SAFE-END-CIRC	SAFE-END-CIRC
CHANNEL NO.	PULSER / RECEIVER CHANNEL NO.
1	6
TRANSDUCER S.N.	PULSER / RECEIVER ID
00CRFJ	16517
SIZE (DIA.)	TRANSDUCER FREQUENCY
2(23x9)mm	2.25 MHz
GAIN	ANGLE
44	70°L
DATA FILE ID CALSECW70-01	CALSECW70H-01
SOFTWARE REV. 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: SAFE-CIRC

CHANNEL: 6 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	13	16.5
2	20	16.5
3	26	24
4	32	24
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	10	10.8
2	20	16.8
3	80	20

PULSER / RECEIVER FILE
SAFE-END-CIRC-STD
GAIN
33
SLED POSITION
N6 CW

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 9 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-46 | THICKNESS: 2.5" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: A | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
I	80	12
H	29	21

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE SAFE-END-CIRC	PULSER / RECEIVER FILE SAFE-END-CIRC
CHANNEL NO. 2	PULSER / RECEIVER CHANNEL NO. 7
TRANSDUCER S.N. 00CRFH	PULSER / RECEIVER ID 16517
SIZE (DIA.) 2(23x9)mm	TRANSDUCER FREQUENCY 2.25 MHz
GAIN 44	ANGLE 70°L
DATA FILE ID CALSECCW70 CALSECCW70H	
SOFTWARE REV. 1.1	

SIGNATURE: [signature] | DATE: 9-20-99

WAVESIM INFORMATION

FILENAME: SAFE-CIRC

CHANNEL: 7 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	13	16.5
2	20	16.5
3	26	24
4	32	24
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	28	8.8
2	80	14
3	18	27.2

PULSER / RECEIVER FILE SAFE-END-CIRC-STD
GAIN 27
SLED POSITION N7 CCW

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 10 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-46 | THICKNESS: 2.5" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: A | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
N5	80	39.0

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: NOZAX	PULSER / RECEIVER FILE: NOZAX
CHANNEL NO.: 5	PULSER / RECEIVER CHANNEL NO.: 10
TRANSDUCER S.N.: 00F0T2	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 14x23mm	TRANSDUCER FREQUENCY: 1.0 MHz
GAIN: 36	ANGLE: 45°L OUT
DATA FILE ID: CALOD45L-05	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] DATE: 9-21-99

WAVESIM INFORMATION

FILENAME _____

CHANNEL _____ SYSTEM DELAY _____ WAVE FREQUENCY _____

DC OFFSET (+/-V) _____ BOARD ATTENUATION (dB) _____

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1		
2		
3	N	A
4		
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
			A		
		N			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	37

PULSER / RECEIVER FILE: NOZ-AX-STD
GAIN: 14
SLED POSITION: OD-1

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 10 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-46 | THICKNESS: 2.5" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: A | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
N5	80	65.4

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: NOZZLEAXIAL	PULSER / RECEIVER FILE: NOZAX
CHANNEL NO.: 4	PULSER / RECEIVER CHANNEL NO.: 9
TRANSDUCER S.N.: 00F0RW	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 35	ANGLE: 45°S IN
DATA FILE ID: CALOD45S-04	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] DATE: 9-21-99

WAVESIM INFORMATION

FILENAME _____

CHANNEL _____ SYSTEM DELAY _____ WAVE FREQUENCY _____

DC OFFSET (+/-V) _____ BOARD ATTENUATION (dB) _____

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	N	A
2		
3		
4		
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
N			A		

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	67.8

PULSER / RECEIVER FILE: NOZ-AX-STD
GAIN: 42
SLED POSITION: OD-2

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 10 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

PROBE S/N: N/A

CALIBRATION BLOCK: IDENT. INT-46 | THICKNESS: 2.5" | THERMOMETER S/N: 38102

ENTRY SURFACE USED: A | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
N2	80	33.6
N1	75	32.0

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: NOZAX	PULSER / RECEIVER FILE: NOZAX
CHANNEL NO.: 3	PULSER / RECEIVER CHANNEL NO.: 8
TRANSDUCER S.N.: 00F0T1	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 14x23mm	TRANSDUCER FREQUENCY: 1.0 MHz
GAIN: 36	ANGLE: 45°L IN
DATA FILE ID: CALOD45L-03	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] DATE: 9-21-99

WAVESIM INFORMATION

FILENAME _____

CHANNEL _____ SYSTEM DELAY _____ WAVE FREQUENCY _____

DC OFFSET (+/-V) _____ BOARD ATTENUATION (dB) _____

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1		
2		
3	N	A
4		
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
			A		
		N			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	36.6

PULSER / RECEIVER FILE: NOZ-AX-STD
GAIN: 19
SLED POSITION: OD-3

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 10 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-46 | THICKNESS: 2.5"

PROBE S/N: N/A

THERMOMETER S/N: 38102

ENTRY SURFACE USED: A | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 80° F

REFLECTOR	AMPLITUDE	TIME
N5	80	65.7

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: NOZZLEAXIAL	PULSER / RECEIVER FILE: NOZAX
CHANNEL NO.: 6	PULSER / RECEIVER CHANNEL NO.: 11
TRANSDUCER S.N.: 00CR1F	PULSER / RECEIVER ID: 16517
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 35	ANGLE: 45°S IN
DATA FILE ID: CALOD45S-06	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] DATE: 9-21-99

WAVESIM INFORMATION

FILENAME _____

CHANNEL _____ SYSTEM DELAY _____ WAVE FREQUENCY _____

DC OFFSET (+/-V) _____ BOARD ATTENUATION (dB) _____

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1		
2		
3	N	A
4		
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
			A		
		N			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	71

PULSER / RECEIVER FILE: NOZ-AX-STD
GAIN: 46
SLED POSITION: OD-4

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
CSW	2311	9-22-99	CSW	2242	9-25-99
LCH	1105	9-23-99	LCH	0940	9-26-99
CSW	2300	9-23-99	LCH	1610	9-26-99
LCH	1050	9-24-99			
CSW	2245	9-24-99			
LCH	1045	9-25-99			

PRE – EXAM

LINEARITY

RECORD

SYSTEM 101030

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 1 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	100	50	45	to	55	53
+1dB	90	45	39	to	50	47
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	34
-4dB	52	26	21	to	31	27
-6dB	42	21	16	to	26	22
-8dB	34	17	12	to	22	17
-10dB	28	14	9	to	19	14
-12dB	22	11	6	to	16	11
-14dB	16	8	3	to	13	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	42	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	79	64% - 96%
20 %	+ 12 dB	78	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 2 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	50	25	20	to	30	26
-6dB	40	20	15	to	25	21
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	11
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	79	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 3 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	48
+1dB	89	44.5	39.5	to	49.5	44
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	50	25	20	to	30	24
-6dB	40	20	15	to	25	20
-8dB	33	16.5	11.5	to	21.5	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	78	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 4 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	50
+1dB	90	45	40	to	50	46
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	40	20	15	to	25	20
-8dB	34	17	12	to	22	17
-10dB	28	14	9	to	19	14
-12dB	21	10.5	5.5	to	15.5	10
-14dB	18	9	4	to	13	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	81	64% - 96%
20 %	+ 12 dB	79	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 5 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	89	44.5	39.5	to	49.5	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	50	25	20	to	30	25
-6dB	40	20	15	to	25	21
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	81	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 6 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	40	20	15	to	25	20
-8dB	33	16.5	11.5	to	21.5	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	18	9	4	to	13	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 7 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	51	25.5	20.5	to	30.5	25
-6dB	41	20.5	15.5	to	25.5	21
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	16	8	3	to	13	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	79	64% - 96%
20 %	+ 12 dB	77	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 8 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	50
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	40	20	15	to	25	20
-8dB	34	17	12	to	22	17
-10dB	27	13.5	8.5	to	18.5	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	78	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 9 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	89	44.5	39.5	to	49.5	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	33
-4dB	53	26.5	21.5	to	31.5	27
-6dB	41	20.5	15.5	to	25.5	21
-8dB	35	17.5	12.5	to	22.5	17
-10dB	27	13.5	8.5	to	18.5	14
-12dB	21	10.5	5.5	to	15.5	10
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	79	64% - 96%
20 %	+ 12 dB	77	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 10 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	99	49.5	44.5	to	54.5	50
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	41	20.5	15.5	to	25.5	20
-8dB	34	17	12	to	22	16
-10dB	28	14	9	to	19	14
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	82	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 11 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	53	26.5	21.5	to	31.5	26
-6dB	40	20	15	to	25	20
-8dB	34	17	12	to	22	17
-10dB	26	13	8	to	20	13
-12dB	20	10	5	to	15	10
-14dB	16	8	3	to	13	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	20	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	82	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 12 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	50
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	33
-4dB	52	26	21	to	31. 31	26
-6dB	41	20.5	15.5	to	25.5	21
-8dB	35	17.5	12.5	to	22.5	17
-10dB	26	13	8	to	20	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	79	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 13 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	99	49.5	44.5	to	54.5	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	40	20	15	to	25	20
-8dB	32	16	11	to	21	16
-10dB	28	14	9	to	19	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.3	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	82	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 14 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	41	20.5	15.5	to	25.5	20
-8dB	35	17.5	12.5	to	22.5	17
-10dB	28	14	9	to	19	14
-12dB	21	10.5	5.5	to	15.5	10
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	82	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [illegible] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 15 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	99	49.5	44	to	54.5	50
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	41	20.5	15.5	to	25.5	20
-8dB	34	17	12	to	22	17
-10dB	26	13	8	to	21	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	83	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

WesDyne International
Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-15-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM# 101030 TRANSDUCER SIZE (30x28)mm FREQ. 2.25 MHz S/N 00F116

CHANNEL# 16 REFERENCE BLOCK TYPE RHOMBUS BLOCK S/N 796484

ACQUISITION CHASSIS# 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	94	47	42	to	52	50
+1dB	87	43.5	38.5	to	48.5	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	12
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 5 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 90° F

REFLECTOR	AMPLITUDE	TIME
D	80	52
E	49	102
F	30	151
F (1 1/4)	13	250
NOTCH	DAC + 8dB	212

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWER9AX	PULSER / RECEIVER FILE: LOWER9NEW
CHANNEL NO.: 1	PULSER / RECEIVER CHANNEL NO.: 1
TRANSDUCER S.N.: 00CR1H	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 50	ANGLE: 45°S
DATA FILE ID: CALLOW945-01	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-18-99

WAVESIM INFORMATION

FILENAME: LOWER9NEW

CHANNEL: 1 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	63	26
2	113	29.6
3	164	33
4	215	37
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	82	29.6
2	80	125.6
3	58	217.6

PULSER / RECEIVER FILE: LOWER9STDNEW
GAIN: 38
SLED POSITION: LS-1

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 5 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 90° F

REFLECTOR	AMPLITUDE	TIME
D	80	51
E	45	100
F	30	150
F (1 1/4)	15	251
NOTCH	DAC + 8dB	211

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWER9AX	PULSER / RECEIVER FILE: LOWER9NEW
CHANNEL NO.: 2	PULSER / RECEIVER CHANNEL NO.: 2
TRANSDUCER S.N.: 00CR1D	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 44	ANGLE: 45°S
DATA FILE ID: CALLOW945-02	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER9NEW

CHANNEL: 2 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 18

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	63	27.5
2	113	32.5
3	164	35
4	215	40.5
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	28.8
2	79	124.8
3	64	216.8

PULSER / RECEIVER FILE: LOWER9STDNEW
GAIN: 41
SLED POSITION: LS-2

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 5 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

PROBE S/N: N/A

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 90° F

REFLECTOR	AMPLITUDE	TIME
D	80	76
E	42	147
F	20	216
F (1 1/4)	7	363
NOTCH	DAC + 8dB	289

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWER9AX	PULSER / RECEIVER FILE: LOWER9NEW
CHANNEL NO.: 3	PULSER / RECEIVER CHANNEL NO.: 3
TRANSDUCER S.N.: 00CR17	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 58	ANGLE: 60°S
DATA FILE ID: CALLOW960-03	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER9NEW

CHANNEL: 3 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	82	39.7
2	154	44
3	225	44
4	300	43.7
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	78	70.4
2	80	160.8
3	79	230.4

PULSER / RECEIVER FILE: LOWER9STDNEW
GAIN: 41
SLED POSITION: LS-3

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 5 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 90° F

REFLECTOR	AMPLITUDE	TIME
D	80	74
E	35	144
F	18	210
F (1 1/4)	6	360
NOTCH		

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWER9AX	PULSER / RECEIVER FILE: LOWER9NEW
CHANNEL NO.: 4	PULSER / RECEIVER CHANNEL NO.: 4
TRANSDUCER S.N.: 00CR19	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 64	ANGLE: 60°S
DATA FILE ID: CALLOW960-04	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER9NEW

CHANNEL: 4 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 12

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	83	37.5
2	155	43.2
3	225	44.5
4	300	44.5
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	78	68.8
2	71	164
3	80	233.6

PULSER / RECEIVER FILE: LOWER9STDNEW
GAIN: 43
SLED POSITION: LS-4

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 5 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 90° F

REFLECTOR	AMPLITUDE	TIME
NS1	80	5.2
NS2	28	13.2
NS3	9	27.2

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWER9AX	PULSER / RECEIVER FILE: LOWER9NEW
CHANNEL NO.: 5	PULSER / RECEIVER CHANNEL NO.: 5
TRANSDUCER S.N.: 00CRDP	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 3(8x20)mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 35	ANGLE: 70°L
DATA FILE ID: CALLOW970-05	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER9NEW

CHANNEL: 5 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	16	10
2	23	17.6
3	30	27.2
4	38	27.5
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	21	6.8
2	80	14.8
3	19	22.4

PULSER / RECEIVER FILE: LOWER9STDNEW
GAIN: 24
SLED POSITION: LS-5

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 5 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

PROBE S/N: N/A

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 90° F

REFLECTOR	AMPLITUDE	TIME
NS1	80	5.2
NS2	34	13.6
NS3	12	25

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE LOWER9AX	PULSER / RECEIVER FILE LOWER9NEW
CHANNEL NO. 6	PULSER / RECEIVER CHANNEL NO. 6
TRANSDUCER S.N. 00C4YX	PULSER / RECEIVER ID 101030
SIZE (DIA.) 3(8x20)mm	TRANSDUCER FREQUENCY 2.25 MHz
GAIN 34	ANGLE 70°L
DATA FILE ID CALLOW970-06	
SOFTWARE REV. 1.1	

SIGNATURE: [signature] | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER9NEW

CHANNEL: 6 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	16	9
2	28	15
3	35	22.3
4	42	23
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	12	6.0
2	78	12.8
3	74	20.8

PULSER / RECEIVER FILE LOWER9STDNEW
GAIN 25
SLED POSITION LS-6

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 5 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 90° F

REFLECTOR	AMPLITUDE	TIME
A	80	19.2
B	32	38.4
C	18	57.6
B.W.	100% + 10dB	78.6

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWER9AX	PULSER / RECEIVER FILE: LOWER9NEW
CHANNEL NO.: 7	PULSER / RECEIVER CHANNEL NO.: 7
TRANSDUCER S.N.: 00C4YN	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 1.0" DIA.	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 28	ANGLE: 0°
DATA FILE ID: CALLOW90-07	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER9NEW

CHANNEL: 7 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 18

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	22	11
2	42	18
3	61	25
4	81	11
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	78	15
2	9	39.6
3	10	64.2

PULSER / RECEIVER FILE: LOWER9STDNEW

GAIN: 25

SLED POSITION: LS-7

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 5 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 90° F

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

REFLECTOR	AMPLITUDE	TIME
A	80	18.6
B	34	37.8
C	15	57.6
B.W.	100% + 2dB	78.6

MULTI CHANNEL FILE: LOWER9AX	PULSER / RECEIVER FILE: LOWER9NEW
CHANNEL NO.: 8	PULSER / RECEIVER CHANNEL NO.: 8
TRANSDUCER S.N.: 00CR1L	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 1.0" DIA.	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 28	ANGLE: 0°
DATA FILE ID: CALLOW90-08	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER9NEW

CHANNEL: 8 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 14

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	22	15.3
2	42	23
3	61	30
4	81	15.3
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	86	23.4
2	25	39
3	7	63.6

PULSER / RECEIVER FILE: LOWER9STDNEW
GAIN: 21
SLED POSITION: LS-8

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
FSH	1415	9-24-99			
MFF	2230	9-24-99			
FSH	1010	9-25-99			
MFF	2050	9-25-99			
FSH	0845	9-26-99			
SAS	1820	9-26-99			

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Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 6 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-45 | THICKNESS: 6.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 83° F

REFLECTOR	AMPLITUDE	TIME
D	80	32.8
E	48	66.4
F	42	97.6
F (1 1/4)	12	171.2
NOTCH	DAC + 5dB	133.0

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWER6AX	PULSER / RECEIVER FILE: LOWER6
CHANNEL NO.: 1	PULSER / RECEIVER CHANNEL NO.: 1
TRANSDUCER S.N.: 00CR1H	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 43	ANGLE: 45°S
DATA FILE ID: CALLOW645-01	
SOFTWARE REV.: 1.1	

SIGNATURE: Larry C Hines | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER6

CHANNEL: 1 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 10

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	47	28.5
2	80	33
3	115	35.5
4	184	42
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	34	28.8
2	80	62.4
3	40	120

PULSER / RECEIVER FILE: LOWER6
GAIN: 44
SLED POSITION: LS-1

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 6 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-45 | THICKNESS: 6.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 83° F

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

REFLECTOR	AMPLITUDE	TIME
D	80	33.0
E	47	66.8
F	41	97.8
F (1 1/4)	10	171.2
NOTCH	DAC + 7dB	133.6

MULTI CHANNEL FILE: LOWER6AX	PULSER / RECEIVER FILE: LOWER6
CHANNEL NO.: 2	PULSER / RECEIVER CHANNEL NO.: 2
TRANSDUCER S.N.: 00CR1D	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 43	ANGLE: 45°S
DATA FILE ID: CALLOW645-02	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER6

CHANNEL: 2 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 10

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	44	28.5
2	77	33
3	108	35
4	181	41
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	57	36.8
2	81	65.6
3	33	128

PULSER / RECEIVER FILE: LOWER6
GAIN: 42
SLED POSITION: LS-2

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 6 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-45 | THICKNESS: 6.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 83° F

REFLECTOR	AMPLITUDE	TIME
D	80	52.8
E	24	110.4
F	20	151.2
F (1 1/4)	7	237.2
NOTCH	DAC + 7dB	207.2

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWER6AX	PULSER / RECEIVER FILE: LOWER6
CHANNEL NO.: 3	PULSER / RECEIVER CHANNEL NO.: 3
TRANSDUCER S.N.: 00CR17	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 47	ANGLE: 60°S
DATA FILE ID: CALLOW660-03	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER6

CHANNEL: 3 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 12

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	66	31
2	123	38
3	164	40
4	250	48
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	37	37.6
2	80	91.2
3	38	215.2

PULSER / RECEIVER FILE: LOWER6
GAIN: 45
SLED POSITION: LS-3

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 6 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-45 | THICKNESS: 6.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 83° F

REFLECTOR	AMPLITUDE	TIME
D	80	53.0
E	25	110.8
F	20	151.4
F (1 1/4)	8	237.0
NOTCH	DAC + 5dB	208.2

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWER6AX	PULSER / RECEIVER FILE: LOWER6
CHANNEL NO.: 4	PULSER / RECEIVER CHANNEL NO.: 4
TRANSDUCER S.N.: 00CR19	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 28x24mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 52	ANGLE: 60°S
DATA FILE ID: CALLOW660-04	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER6

CHANNEL: 4 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 12

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	63	36.0
2	120	42
3	161	44
4	250	51
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	27	40.8
2	80	95.2
3	41	192.8

PULSER / RECEIVER FILE: LOWER6

GAIN: 38

SLED POSITION: LS-4

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 6 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

PROBE S/N: N/A

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 83° F

REFLECTOR	AMPLITUDE	TIME
NS1	80	5.2
NS2	28	13.2
NS3	9	27.2

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWERAX6	PULSER / RECEIVER FILE: LOWER6
CHANNEL NO.: 5	PULSER / RECEIVER CHANNEL NO.: 5
TRANSDUCER S.N.: 00CRDP	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 3(8x20)mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 38	ANGLE: 70°L
DATA FILE ID: CALLOW970-05	
SOFTWARE REV.: 1.1	

SIGNATURE: Barry C. Himes | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER6

CHANNEL: 5 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	16	1
2	23	9
3	30	18
4	38	19
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	19	10
2	80	15.2
3	11	26.8

PULSER / RECEIVER FILE: LOWER6
GAIN: 26
SLED POSITION: LS-5

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 6 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-44 | THICKNESS: 9.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 83° F

REFLECTOR	AMPLITUDE	TIME
NS1	80	5.2
NS2	34	13.6
NS3	12	25

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWERAX6	PULSER / RECEIVER FILE: LOWER6
CHANNEL NO.: 6	PULSER / RECEIVER CHANNEL NO.: 6
TRANSDUCER S.N.: 00C4YX	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 3(8x20)mm	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 38	ANGLE: 70°L
DATA FILE ID: CALLOW970-06	
SOFTWARE REV.: 1.1	

SIGNATURE: [signature] | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER6

CHANNEL: 6 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 20

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	16	1
2	23	7
3	30	15
4	38	16
5		

WAVESIM VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	19	10.2
2	80	15.2
3	15	23.6

PULSER / RECEIVER FILE: LOWER6
GAIN: 26
SLED POSITION: LS-6

SECONDARY VERIFICATION

INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 6 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-45 | THICKNESS: 6.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 83° F

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

REFLECTOR	AMPLITUDE	TIME
A	80	14.4
B	69	27.0
C	40	39.6
B.W.	100% + 13dB	52.8

MULTI CHANNEL FILE: LOWERAX6	PULSER / RECEIVER FILE: LOWER6
CHANNEL NO.: 7	PULSER / RECEIVER CHANNEL NO.: 7
TRANSDUCER S.N.: 00C4YN	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 1.0" DIA.	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 26	ANGLE: 0°
DATA FILE ID: CALLOW600-07	
SOFTWARE REV.: 1.1	

SIGNATURE: Barry C. Harris | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER6

CHANNEL: 7 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 10

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	17	10.5
2	29	11.5
3	42	15.5
4	56	16
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	15
2	38	23.4
3	5	39.6

PULSER / RECEIVER FILE: LOWER6
GAIN: 11
SLED POSITION: LS-7

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

WESDYNE INTERNATIONAL

Reactor Vessel UT Calibration / Examination Data Sheet

PLANT: INDIAN POINT | UNIT: 3 | INTERVAL: 2 | PERIOD: 3 | OUTAGE: 2

IDENT.: CAL. PACKAGE 6 | PROCEDURE: INT-ISI-254 | REV.: 0, FC 02

DISTANCE - AMPLITUDE CALIBRATION

CALIBRATION BLOCK: IDENT. INT-45 | THICKNESS: 6.0" | PROBE S/N: N/A | THERMOMETER S/N: 38102

ENTRY SURFACE USED: CLAD ID | SCAN SPEED: 6" / SEC. | COUPLANT USED: DEMIN WATER | TEMPERATURE: 83° F

REFLECTOR	AMPLITUDE	TIME
A	80	14.4
B	70	27.2
C	41	39.8
B.W.	100% + 13dB	52.8

CABLE LENGTH / CABLE TYPE: 150', RG174, BNC to SUHNER

MULTI CHANNEL FILE: LOWERAX6	PULSER / RECEIVER FILE: LOWER6
CHANNEL NO.: 8	PULSER / RECEIVER CHANNEL NO.: 8
TRANSDUCER S.N.: 00CR1L	PULSER / RECEIVER ID: 101030
SIZE (DIA.): 1.0" DIA.	TRANSDUCER FREQUENCY: 2.25 MHz
GAIN: 26	ANGLE: 0°
DATA FILE ID: CALLOW600-08	
SOFTWARE REV.: 1.1	

SIGNATURE: Larry C Hines | DATE: 9-19-99

WAVESIM INFORMATION

FILENAME: LOWER6

CHANNEL: 8 | SYSTEM DELAY: 0 | WAVE FREQUENCY: 2

DC OFFSET (+/-V): 0 | BOARD ATTENUATION (dB): 10

ECHO NO.	ECHO DELAY	ECHO ATTENUATION
1	17	11
2	29	12
3	42	16.5
4	56	17
5		

WAVESIM VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

SECONDARY CALIBRATION INFORMATION

REFLECTOR	AMPLITUDE	TIME
1	80	15
2	41	22.8
3	10	39

PULSER / RECEIVER FILE: LOWER6
GAIN: 22
SLED POSITION: LS-8

SECONDARY VERIFICATION					
INITIAL	TIME	DATE	INITIAL	TIME	DATE
MFF	2140	9-22-99			
FSH	0940	9-23-99			
MFF	2140	9-23-99			

POST – EXAM

LINEARITY

RECORD

SYSTEM 101030

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 101030 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N 202160

CHANNEL # 1 REFERENCE BLOCK TYPE CAL. BLOCK S/N INT-44

ACQUISITION CHASSIS # 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	50
+1dB	89	44.5	39.5	to	49.5	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	33
-4dB	52	26	21	to	31	26
-6dB	42	21	16	to	26	22
-8dB	34	17	12	to	22	17
-10dB	28	14	9	to	19	14
-12dB	22	11	6	to	16	11
-14dB	16	8	3	to	13	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	42	32% - 48%
80 %	-12 dB	22	16% - 24%
40 %	+ 6 dB	78	64% - 96%
20 %	+ 12 dB	76	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 101030 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N 202160

CHANNEL # 2 REFERENCE BLOCK TYPE CAL. BLOCK S/N INT-44

ACQUISITION CHASSIS # 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	98	49	44	to	54	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	65	32.5	27.5	to	37.5	33
-4dB	52	26	21	to	31	26
-6dB	40	20	15	to	25	21
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	11
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 101030 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N 202160

CHANNEL # 3 REFERENCE BLOCK TYPE CAL. BLOCK S/N INT-44

ACQUISITION CHASSIS # 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	97	48.5	43.5	to	53.5	48
+1dB	90	45	40	to	50	44
xxxx	80	40	35	to	45	40
-2dB	63	31.5	26.5	to	36.5	32
-4dB	51	25.5	20.5	to	30.5	25
-6dB	41	20.5	15.5	to	25.5	21
-8dB	33	16.5	11.5	to	21.5	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	10
-14dB	17	8.5	3.5	to	13.5	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	79	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 101030 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N 202160

CHANNEL # 4 REFERENCE BLOCK TYPE CAL. BLOCK S/N INT-44

ACQUISITION CHASSIS # 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	99	49.5	44.5	to	54.5	50
+1dB	91	45.5	40.5	to	50.5	46
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	41	20.5	15.5	to	25.5	20
-8dB	34	17	12	to	22	17
-10dB	28	14	9	to	19	14
-12dB	21	10.5	5.5	to	15.5	11
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	78	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 101030 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N 202160

CHANNEL # 5 REFERENCE BLOCK TYPE CAL. BLOCK S/N INT-44

ACQUISITION CHASSIS # 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	100	50	45	to	55	50
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	50	25	20	to	30	25
-6dB	41	20.5	15.5	to	25.5	21
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	21	10.5	5.5	to	15.5	11
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	41	32% - 48%
80 %	-12 dB	21	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 101030 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N 202160

CHANNEL # 6 REFERENCE BLOCK TYPE CAL. BLOCK S/N INT-44

ACQUISITION CHASSIS # 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	99	49.5	44.5	to	54.5	50
+1dB	91	45.5	40.5	to	50.5	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	25
-6dB	40	20	15	to	25	21
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	20	10	5	to	15	11
-14dB	18	9	4	to	14	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	20	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 101030 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N 202160

CHANNEL # 7 REFERENCE BLOCK TYPE CAL. BLOCK S/N INT-44

ACQUISITION CHASSIS # 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	99	49.5	44.5	to	54.5	49
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	50	25	20	to	30	25
-6dB	40	20	15	to	25	20
-8dB	32	16	11	to	21	16
-10dB	26	13	8	to	18	13
-12dB	20	10	5	to	15	11
-14dB	16	8	3	to	13	9

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	20	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	82	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

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Inspection Services

PULSER / RECEIVER LINEARITY PROCEDURE

PLANT INDIAN POINT UNIT 3 DATE 9-27-99

EXAMINER [signature] LEVEL II PROCEDURE CAL-002 Rev. 0

EQUIPMENT

PULSER/RECEIVER WEM # 101030 TRANSDUCER SIZE 1.0" FREQ. 2.25 MHz S/N 202160

CHANNEL # 8 REFERENCE BLOCK TYPE CAL. BLOCK S/N INT-44

ACQUISITION CHASSIS # 1961 OSCOPE S/N N/A S/N N/A

SCREEN HEIGHT LINEARITY

ATTENUATION ADJUSTMENT	ACTUAL HIGHER SIGNAL % FSH	50% OF HIGHER SIGNAL % FSH	ACCEPTANCE LIMITS OF LOWER SIGNAL % FSH			ACTUAL LOWER SIGNAL % FSH
+2dB	99	49.5	44.5	to	54.5	50
+1dB	90	45	40	to	50	45
xxxx	80	40	35	to	45	40
-2dB	64	32	27	to	37	32
-4dB	52	26	21	to	31	26
-6dB	40	20	15	to	25	20
-8dB	33	16.5	11.5	to	21.5	17
-10dB	26	13	8	to	18	13
-12dB	20	10	5	to	15	10
-14dB	17	8.5	3.5	to	13.5	8

AMPLITUDE CONTROL LINEARITY

INITIAL AMPLITUDE	dB CHANGE	RESULT % FSH	LIMITS %FSH
80 %	-6 dB	40	32% - 48%
80 %	-12 dB	20	16% - 24%
40 %	+ 6 dB	80	64% - 96%
20 %	+ 12 dB	80	64% - 96%

ACCEPTABLE [X] UNACCEPTABLE [ ]

INDIAN POINT UNIT NO. 3

TRANSDUCER LIST

SERIAL NO.	MANUFACTURER	SIZE	FREQUENCY	ANGLE
00C4YN	KBA	1.0"	2.25 MHz	0°
00C4YT	KBA	1.25 x 45 Elip.	2.25 MHz	50° L
00C4YX	KBA	3(8x20)mm	2.25 MHz	70° L
00C950	KBA	3(8x20)mm	2.25 MHz	70° L
00CR02	KBA	1.25 x 45 Elip.	2.25 MHz	10° L
00CR17	KBA	28mm x 24mm	2.25 MHz	60° S
00CR19	KBA	28mm x 24mm	2.25 MHz	60° S
00CR1C	KBA	28mm x 24mm	2.25 MHz	45° S
00CR1D	KBA	28mm x 24mm	2.25 MHz	45° S
00CR1F	KBA	28mm x 24mm	2.25 MHz	45° S
00CR1H	KBA	28mm x 24mm	2.25 MHz	45° S
00CR1K	KBA	1.0"	2.25 MHz	0°
00CR1L	KBA	1.0"	2.25 MHz	0°
00CRDP	KBA	3(8x20)mm	2.25 MHz	70° L
00CRDW	KBA	3(8x20)mm	2.25 MHz	70° L
00CRFH	KBA	23mm x 18mm	2.25 MHz	70° L
00CRFJ	KBA	23mm x 18mm	2.25 MHz	70° L
00DX6F	KBA	1.0"	2.25 MHz	0°
00F0F2	KBA	23mm x 18mm	2.25 MHz	70° L
00F0F3	KBA	23mm x 18mm	2.25 MHz	70° L
00F0RR	KBA	28mm x 24mm	2.25 MHz	60° S
00F0RT	KBA	28mm x 24mm	2.25 MHz	60° S
00F0RW	KBA	28mm x 24mm	2.25 MHz	45° S
00F0RX	KBA	28mm x 24mm	2.25 MHz	45° S

INDIAN POINT UNIT NO. 3

TRANSDUCER LIST

SERIAL NO.	MANUFACTURER	SIZE	FREQUENCY	ANGLE
00F0T1	KBA	14mm x 23mm	1.0 MHz	45° L
00F0T2	KBA	14mm x 23mm	1.0 MHz	45° L
00F116	KBA	30mm x 28mm	2.25 MHz	45° L
202160	PANAMETRICS	1.0"	2.25 MHz	0°
J14032(SP)	KBA	1.0"	2.25 MHz	0°

TRANSDUCER CERTIFICATION

Transducer Description SPCON8

P/N 389-024-561 S/N 00C4YN

Nominal Freq 2.25 MHz Element Size 1.0

Test Setup UTA-4 2.0" STEEL

Relative Sensitivity 69 dB

Energy Setting 3

Impedance Setting 100Ω

Inspector RH Date 12-21-98

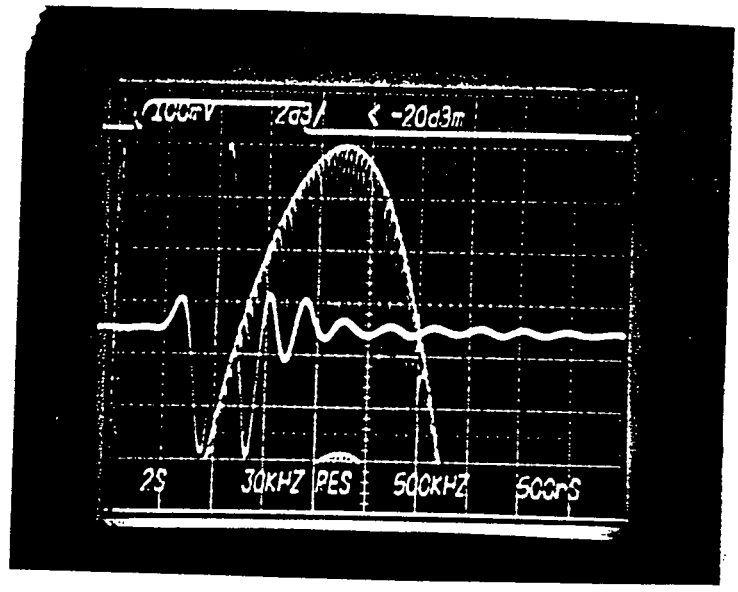
TRACES

I

II

III

A B



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPCON 50° L
BENCHMARK COMPOSITE

P/N 389-029-791 S/N 00C4YT

Nominal Freq 2.25 MHz Element Size 1.25 X 45° ELIP

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 36 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 12-21-98

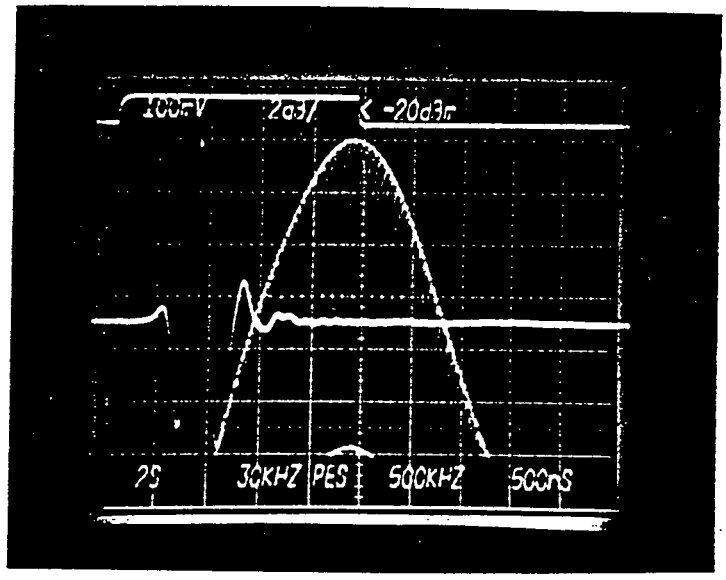
A B

TRACES

I

II

III



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

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Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU00 70° L
BENCHMARK COMPOSITE

P/N 389-032-871 S/N 00C4YX THRU TRANS

Nominal Freq 2.25 MHz Element Size 8MM X 20 MM

Test Setup UTA-4 1.0" STEEL CORNER TRAP

Relative Sensitivity 23 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 12-21-98

TRACES

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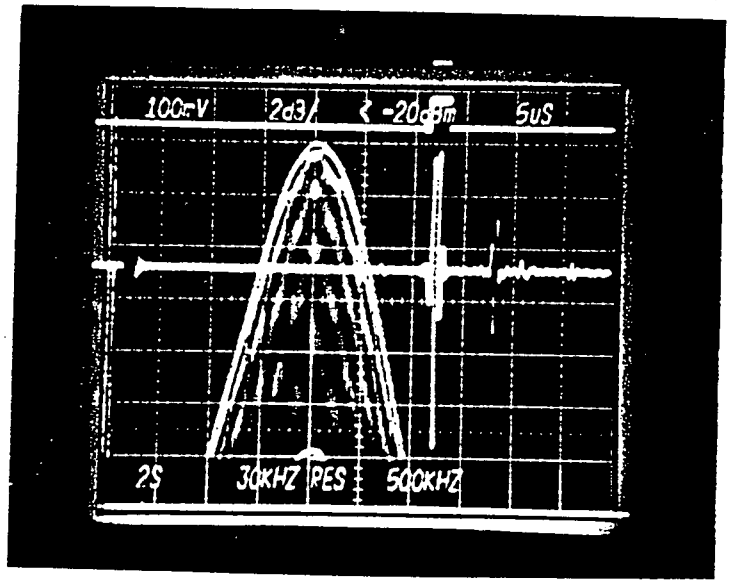
A B



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

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Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU00 70° L
BENCHMARK COMPOSITE

P/N 389-032-871 S/N 00C4YX TRANSMIT RIGHT

Nominal Freq 2.25 MHz Element Size 8MM X 20 MM

Test Setup UTA-4 1.0" STEEL CORNER TRAP

Relative Sensitivity 29 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 12-21-98

A B

TRACES

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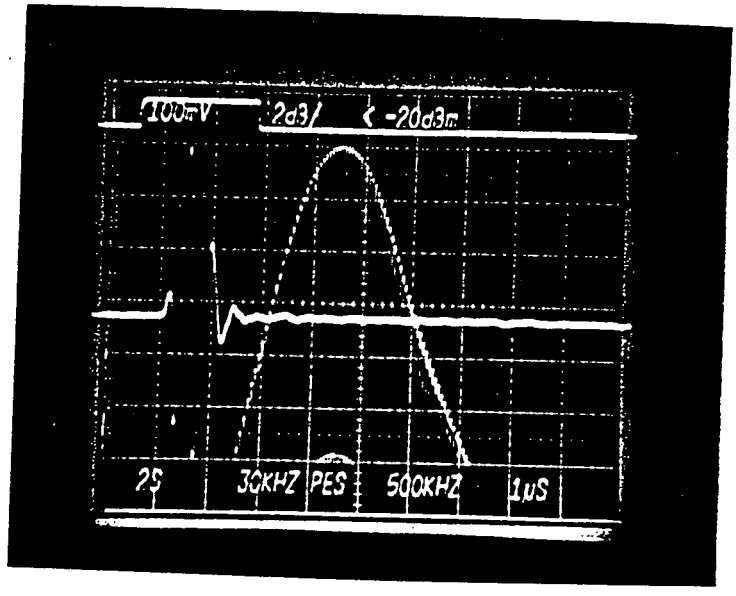

C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU00 70° L
BENCHMARK COMPOSITE

P/N 389-032-871 S/N 00C4YX RECEIVE MIDDLE

Nominal Freq 2.25 MHz Element Size 8MM X 20 MM

Test Setup UTA-4 1.0" STEEL CORNER TRAP

Relative Sensitivity 27 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 12-21-98

A B

TRACES

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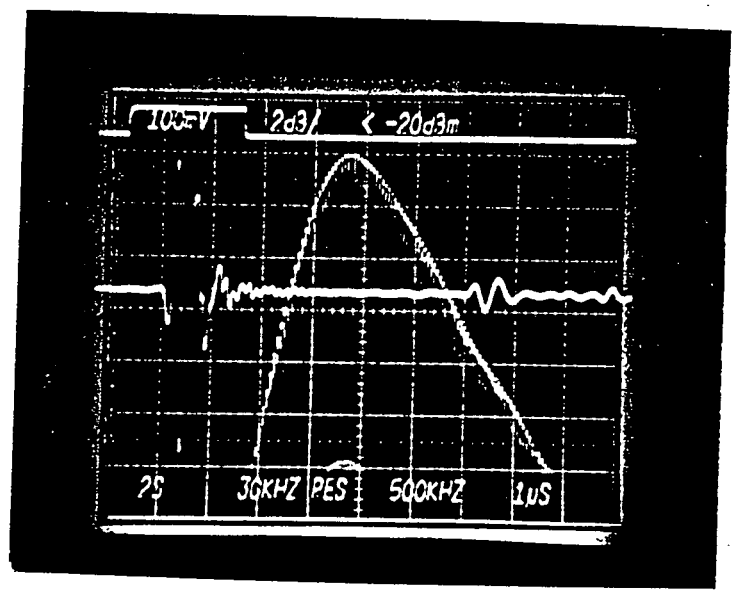

C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU00 70° L
BENCHMARK COMPOSITE

. /N 389-032-871 S/N 00C4YX TRANSMIT LEFT

Nominal Freq 2.25 MHz Element Size 8MM X 20 MM

Test Setup UTA-4 1.0" STEEL CORNER TRAP

Relative Sensitivity 28 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 12-21-98

A B

TRACES

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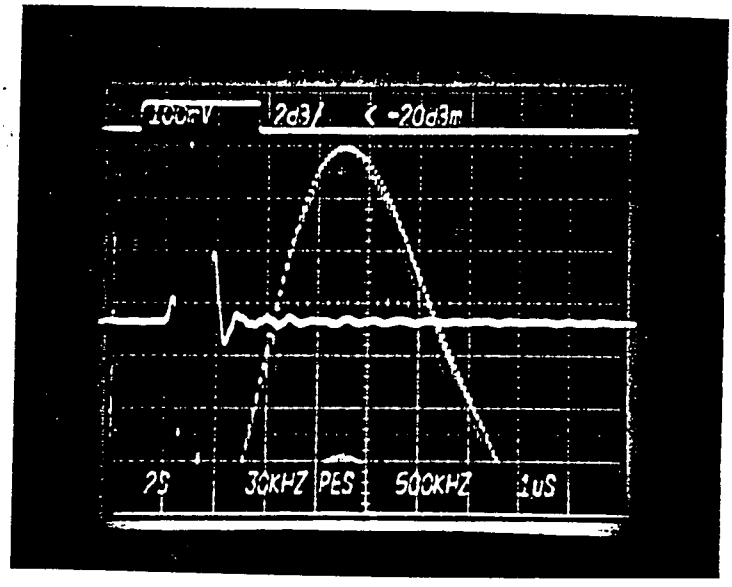
III



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU00 70° L
BENCHMARK COMPOSITE

P/N 389-032-871 S/N 00C950 TRANSMIT RIGHT

Nominal Freq 2.25 MHz Element Size 8MM X 20 MM

Test Setup UTA-4 1.0" STEEL CORNER TRAP

Relative Sensitivity 27 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 01-20-98

TRACES

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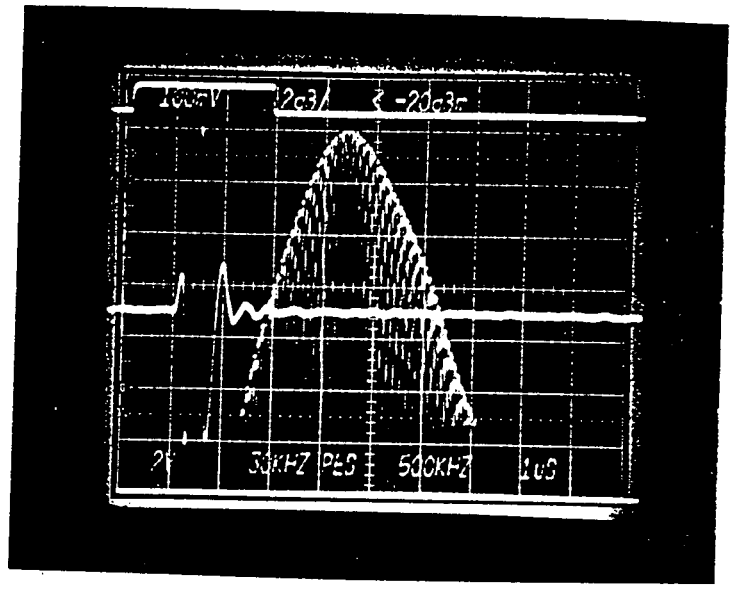
A B



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested [illegible] of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU00 70° L
BENCHMARK COMPOSITE

. /N 389-032-871 S/N 00C950 TRANSMIT LEFT

Nominal Freq 2.25 MHz Element Size 8MM X 20 MM

Test Setup UTA-4 1.0" STEEL CORNER TRAP

Relative Sensitivity 26 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 01-20-98

A B

TRACES

I

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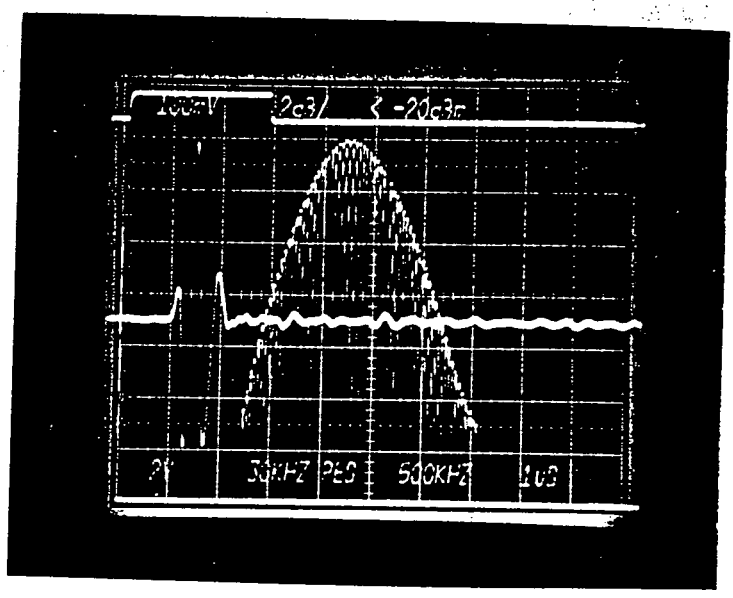
III



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU00 70° L
BENCHMARK COMPOSITE

P/N 389-032-871 S/N 00C950 RECEIVE MIDDLE

Nominal Freq 2.25 MHz Element Size 8MM X 20 MM

Test Setup UTA-4 1.0" STEEL CORNER TRAP

Relative Sensitivity 26 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 01-20-98

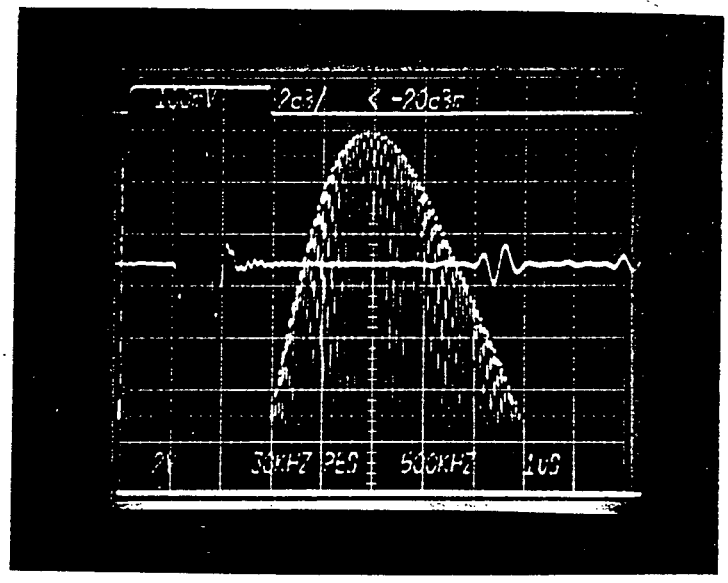
A B

TRACES

I

II

III



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced linear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested [illegible] of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

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Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

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Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU00 70° L
BENCHMARK COMPOSITE

P/N 389-032-871 S/N 00C950 THRU TRANS

Nominal Freq 2.25 MHz Element Size 8MM X 20 MM

Test Setup UTA-4 1.0" STEEL CORNER TRAP

Relative Sensitivity 21 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 01-20-98

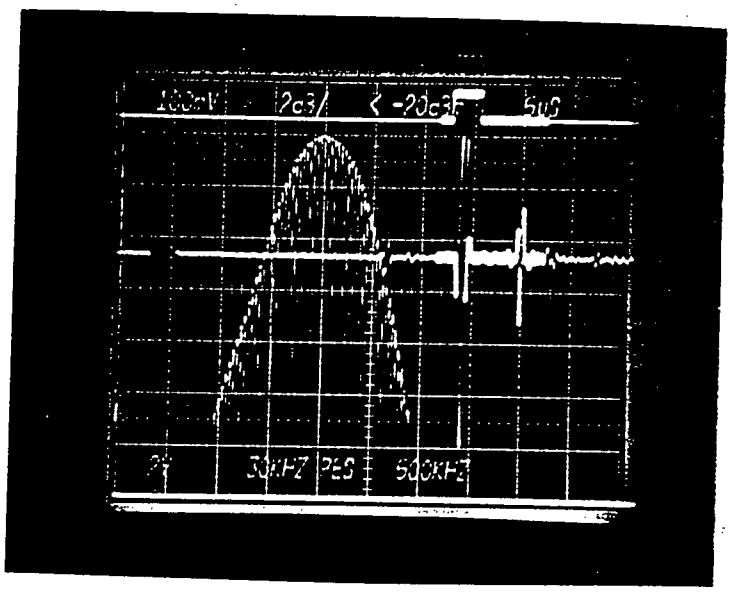
A B

TRACES

I

II

III



C D E F

Testing Procedure

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Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

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Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPCON 10° L
BENCHMARK COMPOSITE

P/N 389-018-782 S/N 00CR02

Nominal Freq 2.25 MHz Element Size 1.25 X 45° ELIP

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 21 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 03-01-99

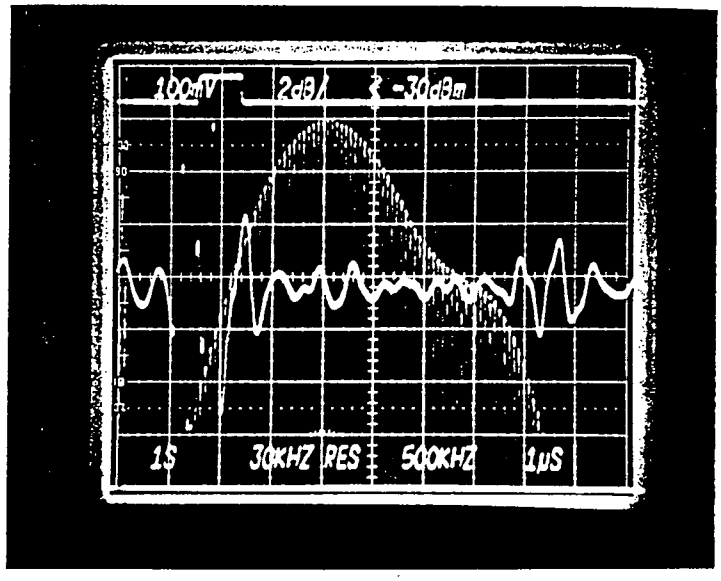
TRACES

I

II

III

A B



C D E F

Testing Procedure

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Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP0 60° SHEAR BENCHMARK COMPOSITE

P/N 389-024-542 S/N 00CR17

Nominal Freq 2.25 MHz Element Size 28MM X 24MM

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 32 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 03-01-99

A B

TRACES

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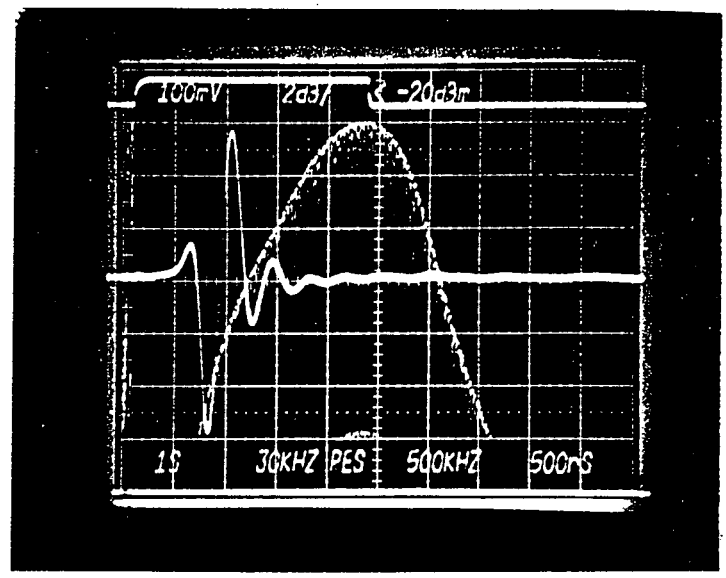
III



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

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Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP0 60° SHEAR BENCHMARK COMPOSITE

P/N 389-024-542 S/N 00CR19

Nominal Freq 2.25 MHz Element Size 28MM X 24MM

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 31 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 03-01-99

A B

TRACES

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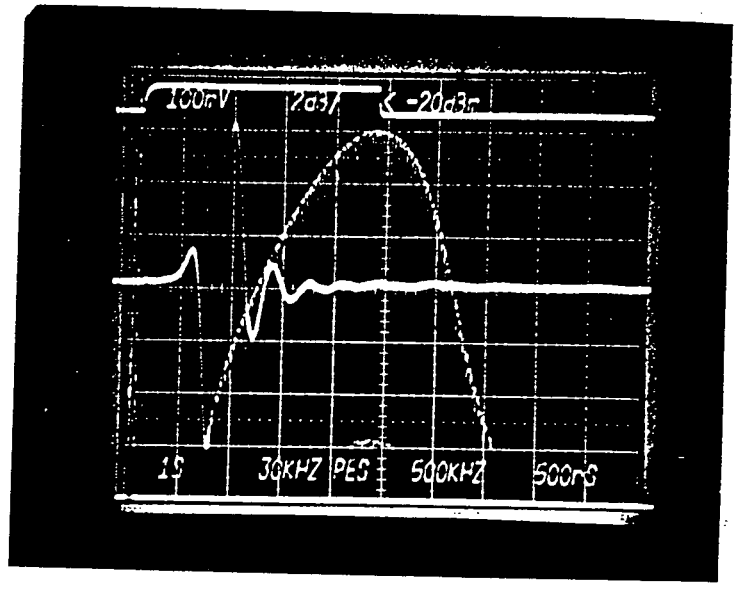

C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP0 45° SHEAR BENCHMARK COMPOSITE

P/N 389-024-532 S/N 00CR1C

Nominal Freq 2.25 MHz Element Size 28MM X 24MM

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 35 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 03-01-99

TRACES

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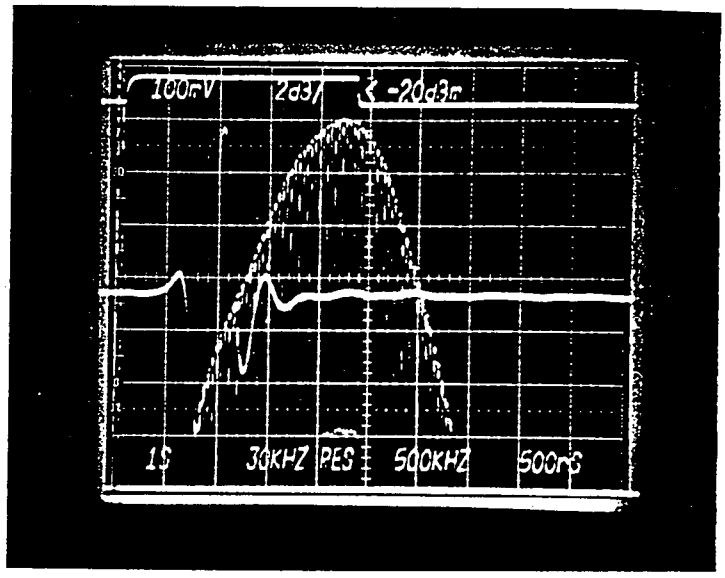
A B



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP0 45° SHEAR BENCHMARK COMPOSITE

P/N 389-024-532 S/N 00CR1D

Nominal Freq 2.25 MHz Element Size 28MM X 24MM

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 34 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 03-01-99

A B

TRACES

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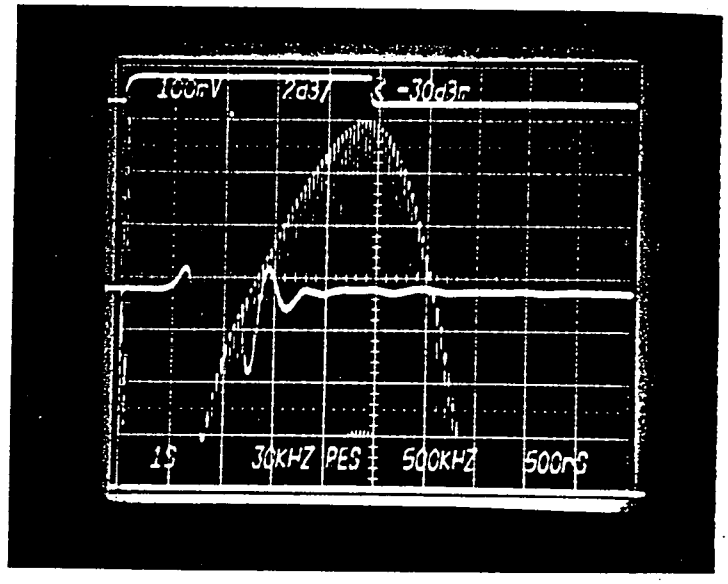

C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP0 45° SHEAR BENCHMARK COMPOSITE

P/N 389-024-532 S/N 00CR1F

Nominal Freq 2.25 MHz Element Size 28MM X 24MM

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 34 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 03-01-99

A B

TRACES

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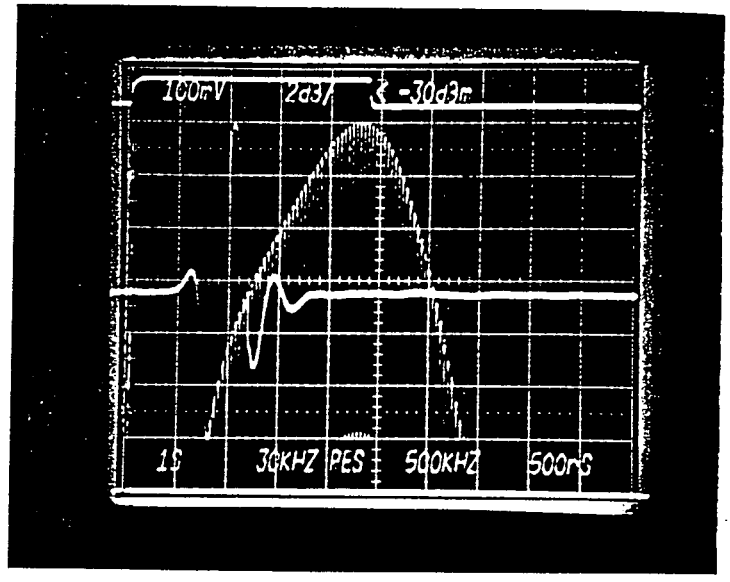

C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP0 45° SHEAR BENCHMARK COMPOSITE

P/N 389-024-532 S/N 00CR1H

Nominal Freq 2.25 MHz Element Size 28MM X 24MM

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 35 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector RH Date 03-01-99

A B

TRACES

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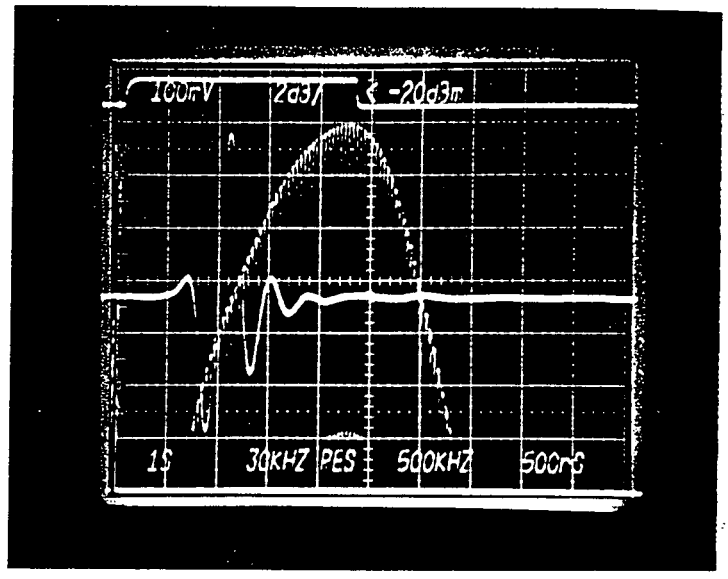

C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPCON8

P/N 389-024-562 S/N 00CR1K

Nominal Freq 2.25 MHz Element Size 1.0

Test Setup UTA-4 2.0" STEEL

Relative Sensitivity 68 dB

Energy Setting 3

Impedance Setting 100Ω

Inspector RH Date 03-01-99

A B

TRACES

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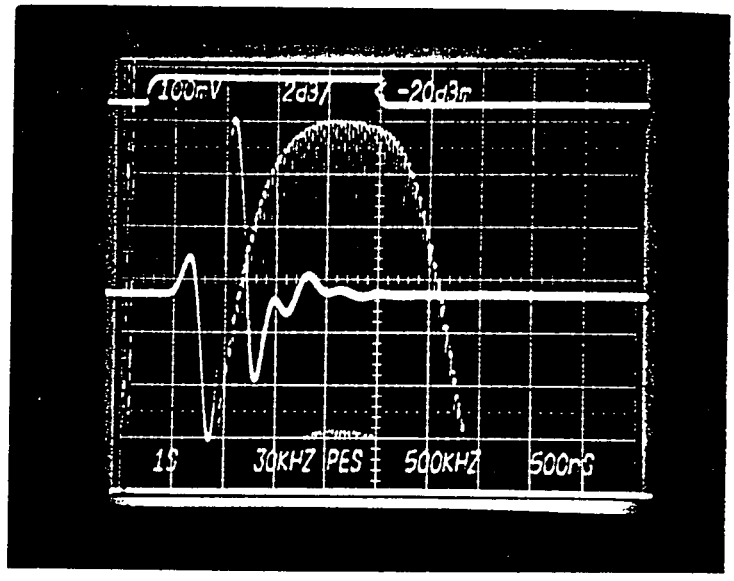

C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPCON8

P/N 389-024-562 S/N 00CR1L

Nominal Freq 2.25 MHz Element Size 1.0

Test Setup UTA-4 2.0" STEEL

Relative Sensitivity 68 dB

Energy Setting 3

Impedance Setting 100Ω

Inspector RH Date 03-01-99

TRACES

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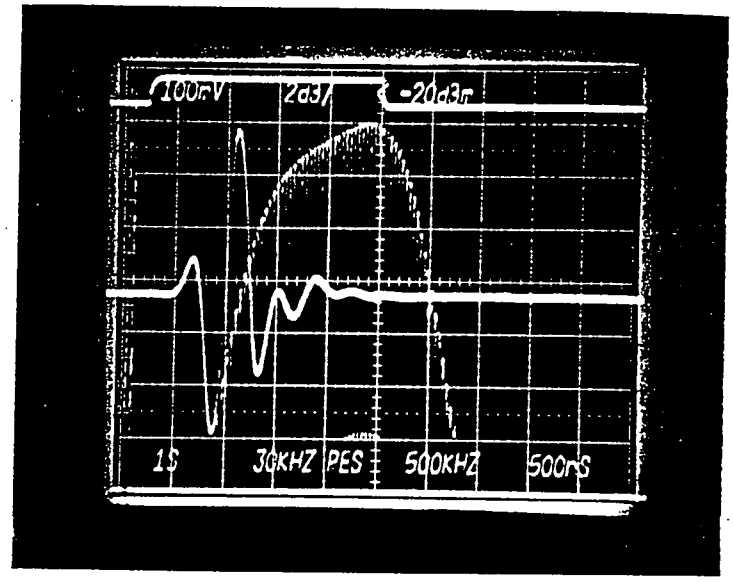
A B



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson
P.O. Box 350
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU 70° L-WAVE 2-TRANSMIT 1-RECEIVE 30mm FOCUS COMPOSITE

P/N 389-032-872 S/N 00CRDP

Nominal Freq 2.25 MHz Element Size 8mm x 20mm

Test Setup UTA-4 1" STEEL CORNER TRAP

Relative Sensitivity 21 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector LES FUHZ Date 3-3-99

A B

TRACES

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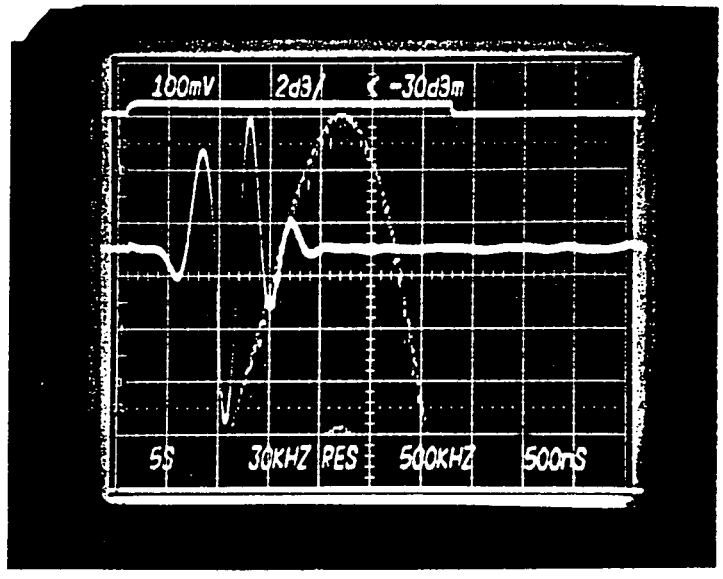


C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-bonded shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson, Inc.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU 70° L-WAVE 2-TRANSMIT 1-RECEIVE 30mm FOCUS COMPOSITE

P/N 389-032-872 S/N 00CRDW

Nominal Freq 2.25 MHz Element Size 8mm x 20mm

Test Setup UTA-4 1" STEEL CORNER TRAP

Relative Sensitivity 22 dB

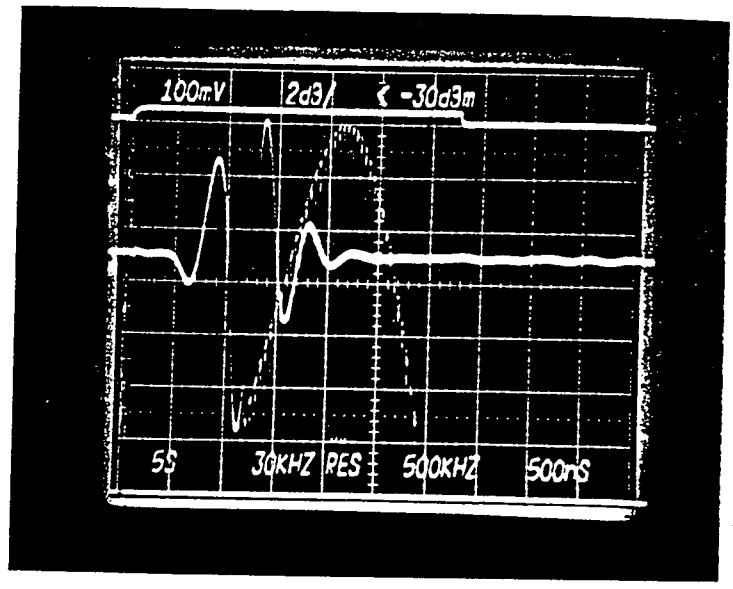
Energy Setting 2

Impedance Setting 50Ω

Inspector LES FULTZ Date 3-3-99

A B

TRACES



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson, Inc.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU 70° L-WAVE 30mm FOCUS COMPOSITE

P/N 389-034-450 S/N 00CRFH

Nominal Freq 2.25 MHz Element Size 23mm x 18mm

Test Setup UTA-4 1" STEEL CORNER TRAP

Relative Sensitivity 29 dB

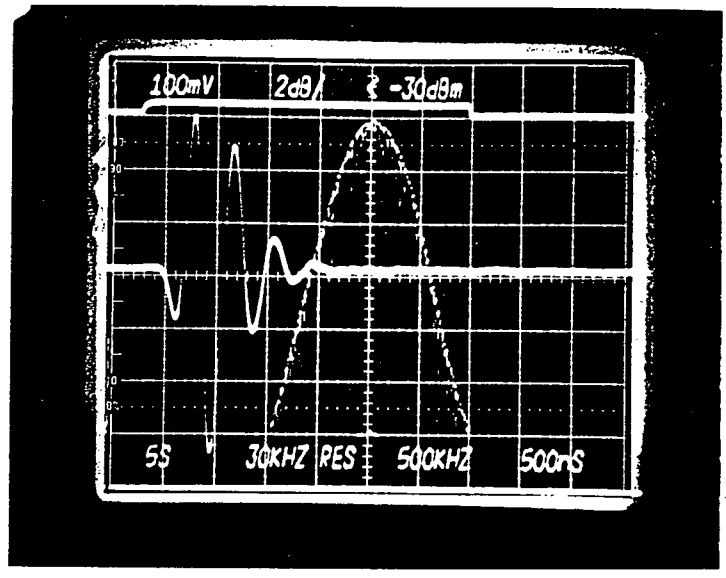
Energy Setting 2

Impedance Setting 50Ω

Inspector LES FULTZ Date 3-3-99

TRACES I II II

A B



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson, Inc.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU 70° L-WAVE 30mm FOCUS COMPOSITE

P/N 389-034-450 S/N 00CRFJ

Nominal Freq 2.25 MHz Element Size 23mm x 18mm

Test Setup UTA-4 1" STEEL CORNER TRAP

Relative Sensitivity 28 dB

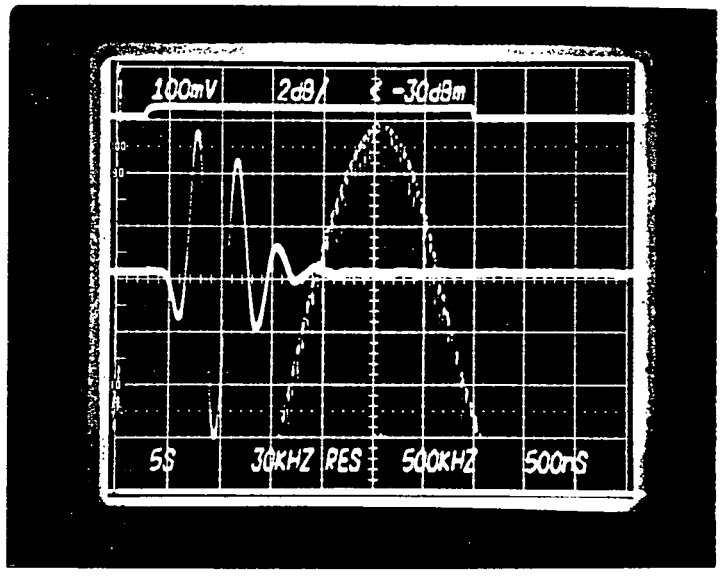
Energy Setting 2

Impedance Setting 50Ω

Inspector LES FULTZ Date 3-3-99

TRACES

A B



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

Using an AEROTECH Ultrasonic Transducer Analyzer, Model UTA-4, and Tektronix 7L12 Frequency Spectrum Analyzer in a 7704A Mainframe, the real time waveform, UTA-4 gate signal, and the frequency spectrum of the gated signal are simultaneously displayed and photographed. Using the linear attenuator in the UTA-4 receiver, the amplitude of the real time waveform is adjusted to six centimeter amplitude (± 1 dB) on the CRT. With the vertical calibration of Trace II fixed 100 Millivolts per division, the amount of attenuation used provides a relative sensitivity rating for all transducers certified by Krautkramer Branson, Inc.

Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPCON8 2.25MHZ/1.0
GAMMA 40MM X 40MM ULTEM CASE

P/N 389-024-563 S/N 00DX6F

Nominal Freq 2.25 MHz Element Size 1.0"
Test Setup UTA-4 2"STEEL

Relative Sensitivity 65 dB

Energy Setting 3

Impedance Setting 100Ω

Inspector TRJ Date 06/29/99

TRACES

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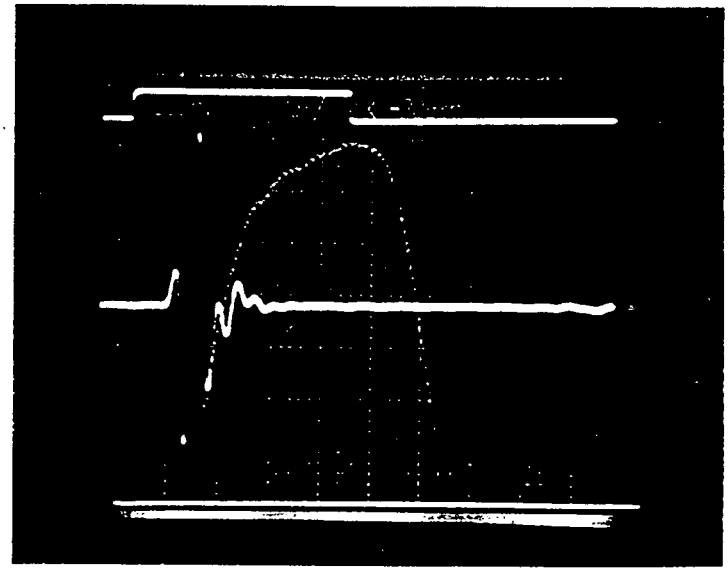
III

A B



C D E F

Testing Procedure

The real time waveform shown in the photo above is the first return echo from a reflector selected with respect to transducer type. All contact (wearplate and dual) transducers are tested on a flat steel (4340) plate while epoxy-faced shear wave transducers are tested on a flat polymer block. Delay fingertip removable (Style DFR) transducers are tested off of the tip of the delay line. Nonfocused immersion transducers are tested in water over a flat stainless steel plate using a water path as specified above. Focused immersion transducers are tested the same as nonfocused transducers except that the water path used is equal to the actual focal length.

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Real Time Waveform - Trace II

Screen writing figures A and F provide the vertical and horizontal screen calibration respectively for Trace II.

Gate Marker - Trace I

Screen writing figure C provides the vertical amplitude of the gate marker and is an inconsequential figure. The horizontal calibration for Trace I is the same as that for Trace II. The portion of Trace II that falls within the gate time period is the signal fed to the frequency spectrum analyzer.

Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU 70° L-WAVE
30 MM FOCUS COMPOSITE

P/N 389-034-450 S/N 00F0F2

Nominal Freq 2.25 MHz Element Size 23MM X 18MM

Test Setup UTA-4 1" STEEL CORNER TRAP

Relative Sensitivity 26 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector TRJ Date 07-08-99

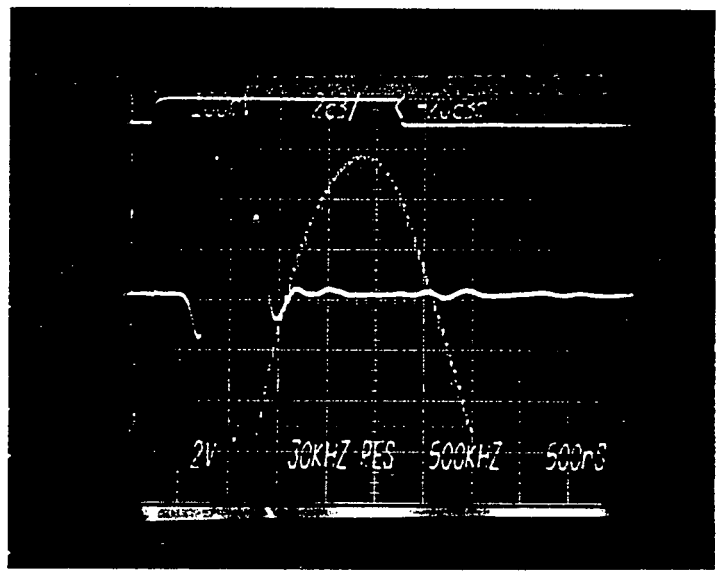
TRACES

I

II

III

A B



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Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description SPDU 70° L-WAVE
30 MM FOCUS COMPOSITE

P/N 389-034-450 S/N 00F0F3

Nominal Freq 2.25 MHz Element Size 23MM X 18MM

Test Setup UTA-4 1" STEEL CORNER TRAP

Relative Sensitivity 27 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector TRJ Date 07-08-99

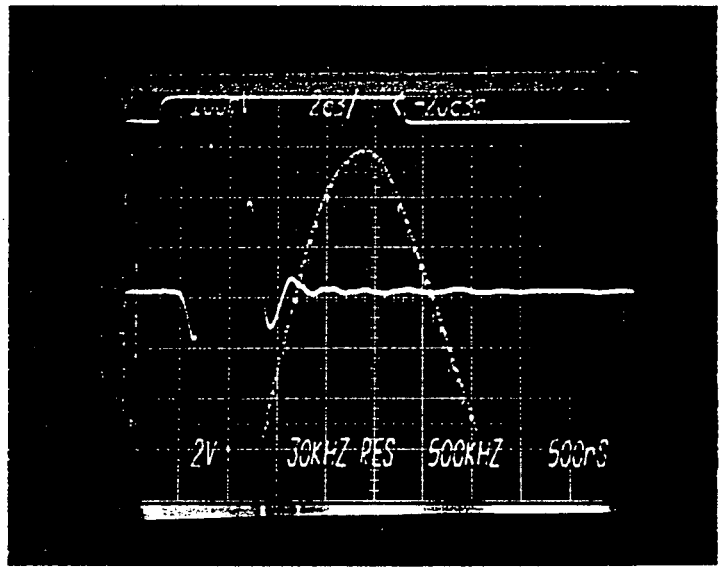
TRACES

I

II

III

A B



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Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP0 60° SHEAR
BENCHMARK COMPOSITE

P/N 389-024-542 S/N 00F0RR

Nominal Freq 2.25 MHz Element Size 28MM X 24MM

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 34 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector TRJ Date 07-13-99

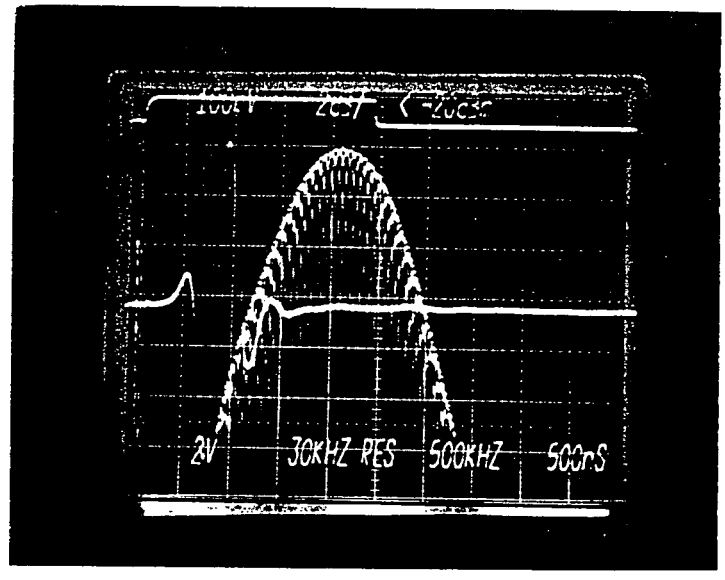
TRACES

I

II

III

A B



C D E F

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Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP0 60° SHEAR
BENCHMARK COMPOSITE

P/N 389-024-542 S/N 00F0RT

Nominal Freq 2.25 MHz Element Size 28MM X 24MM

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 34 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector TRJ Date 07-13-99

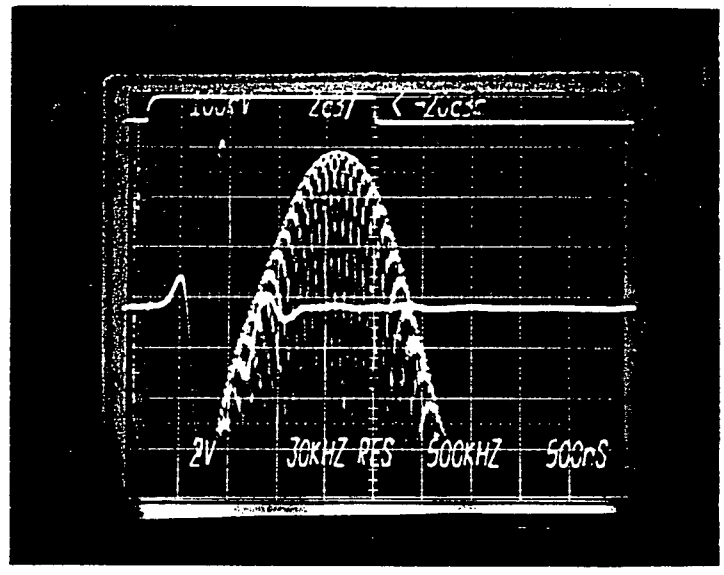
TRACES

I

II

III

A B



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Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP0 45° SHEAR
BENCHMARK COMPOSITE

P/N 389-024-532 S/N 00F0RW

Nominal Freq 2.25 MHz Element Size 28MM X 24MM

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 35 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector TRJ Date 07-12-99

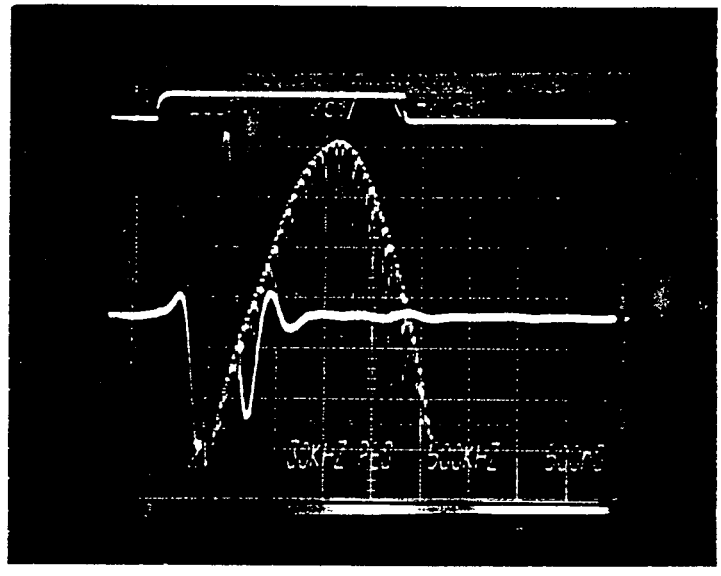
TRACES

I

II

III

A B



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Frequency Spectrum - Trace III

Screen writing figure E provides the horizontal calibration for Trace III. Figures B and D show the spectrum analyzer's attenuator and resolution settings respectively.

Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP0 45° SHEAR
BENCHMARK COMPOSITE

P/N 389-024-532 S/N 00F0RX

Nominal Freq 2.25 MHz Element Size 28MM X 24MM

Test Setup UTA-4 4.0" RADIUS IIW BLOCK

Relative Sensitivity 36 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector TRJ Date 07-12-99

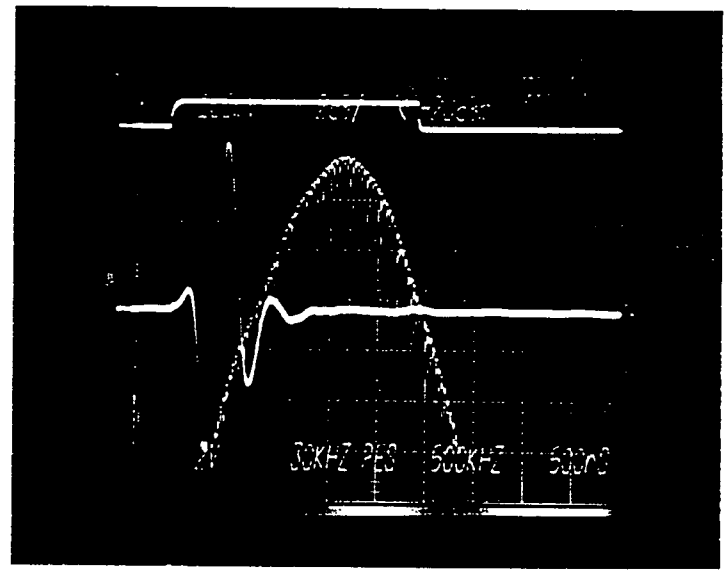
TRACES

I

II

III

A B



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Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP00, 1.0MHZ
14 X 23MM, 45° L-WAVE

P/N 389-035-850 S/N 00F0T1

Nominal Freq 1.0 MHz Element Size 14 MM X 23 MM

Test Setup UTA-4

Relative Sensitivity 43 dB

Energy Setting 2

Impedance Setting 250Ω

Inspector TRJ Date 07-13-99

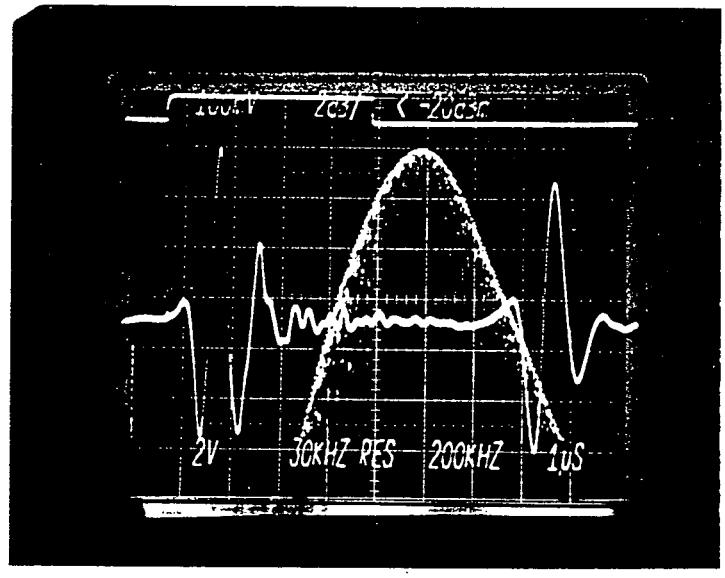
TRACES

I

II

III

A B



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Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP00, 1.0MHZ
14 X 23MM, 45° L-WAVE

P/N 389-035-850 S/N 00F0T2

Nominal Freq 1.0 MHz Element Size 14 MM X 23 MM

Test Setup UTA-4

Relative Sensitivity 43 dB

Energy Setting 2

Impedance Setting 250Ω

Inspector TRJ Date 07-13-99

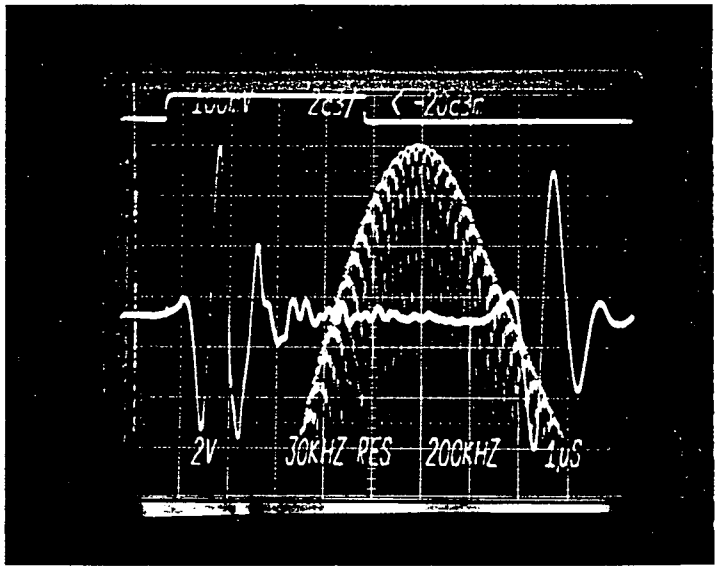
TRACES

I

II

III

A B



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Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

TRANSDUCER CERTIFICATION

Transducer Description PABP00 2.25MHZ
30 X 28MM ELLIPTICAL ELEMENT 45 L-WAVE

P/N 389-035-830 S/N 00F116

Nominal Freq 2.25 MHz Element Size 30 MM X 28 MM

Test Setup UTA-4 IIW BLOCK 4" RADIUS

Relative Sensitivity 35 dB

Energy Setting 2

Impedance Setting 50Ω

Inspector TRJ Date 7-12-99

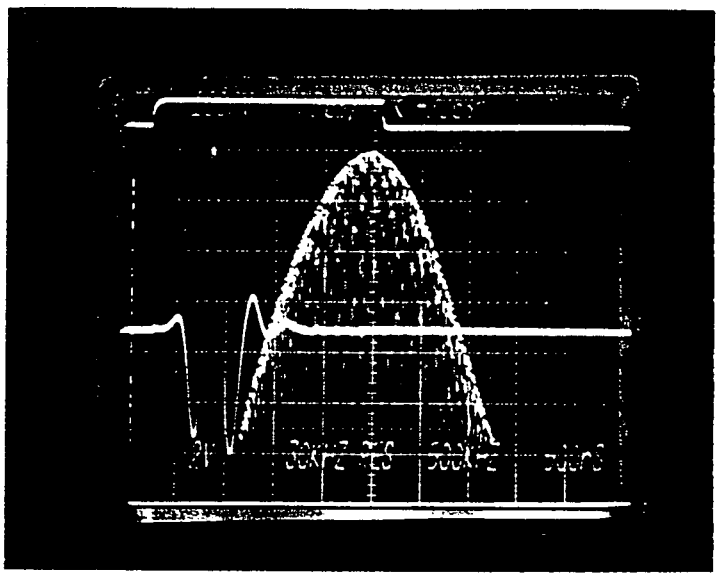
TRACES

I

II

III

A B



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Krautkramer Branson, Inc.
50 Industrial Park Road
Lewistown, PA 17044

PANAMETRICS
221 Crescent St Waltham MA 02154
Tel: 800-225-8330, 617-899-2740
Fax: 617-899-1552

TRANSDUCER CERTIFICATION

TRANSDUCER DESCRIPTION

PART NO.: V408 FREQUENCY: 2.25 MHz
SERIAL NO.: 202160 ELEMENT SIZE: 1." DIA.
DESIGNATION: CONTACT

TEST INSTRUMENTATION

PULSER/RECEIVER: PANAMETRICS 5052 UA: #2
DIGITAL OSCILLOSCOPE: LECROY 9400-V2.06FT #3
COMPUTER PROGRAM: VER 1.5 SETUP: DWG. #5979
CABLE: RG-58/U LENGTH: 4 FT.

TEST CONDITIONS

PULSER ENERGY: 1
PULSER DAMPING: 50 ohm
RECEIVER SETTING: 40 dB GAIN / 26 dB ATTENUATION
TARGET: BACK WALL OF 1.0" LUCITE

MEASUREMENTS PER ASTM E1065

PEAK FREQUENCY ----	2.17 MHz	WAVEFORM DURATION:	
CENTER FREQUENCY--	1.80 MHz	@—14dB LEVEL --	.632 us
UPPER FREQ @—6dB--	2.90 MHz	@—20dB LEVEL --	1.04 us
LOWER FREQ @—6dB--	.70 MHz	@—40dB LEVEL --	1.60 us
BANDWIDTH @—6dB---	122.2 %	FOCAL LENGTH ----	

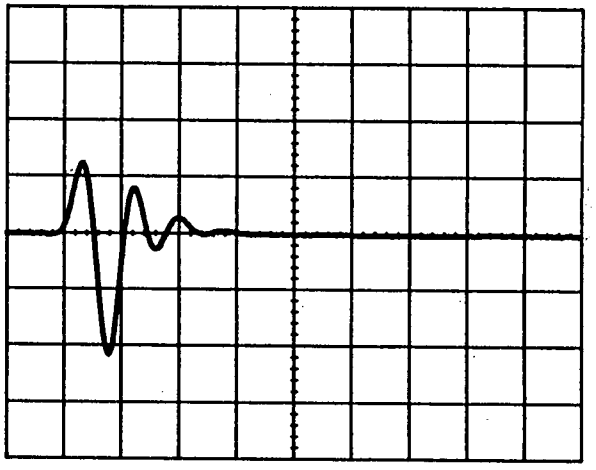
COMMENTS:

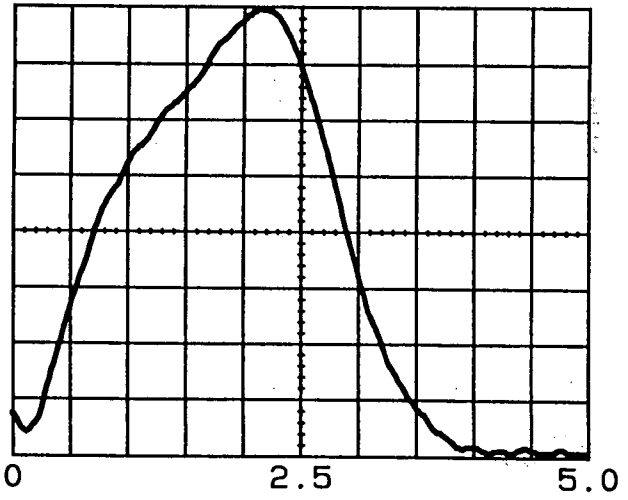
AUTHORIZED BY: _____ DATE:

TECHNICIAN: (3) _____ DATE: 01-25-95

WAVEFORM

VERTICAL SENSITIVITY: 200 mv/div
HORIZONTAL RESOLUTION: .50 us/div





SPECTRUM
VERTICAL: LINEAR FORMAT
HORIZONTAL: (MHZ)

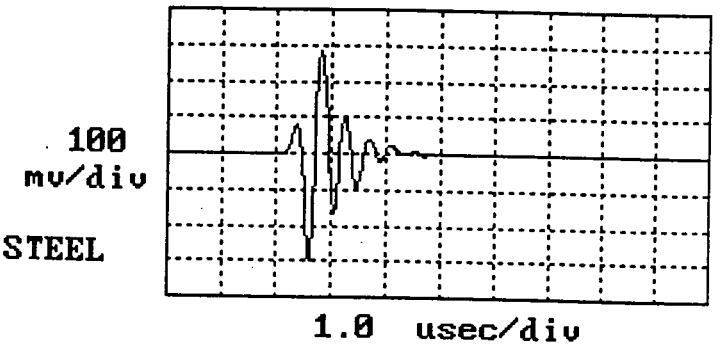
TP103-1 REV.A 10/7/93 PREPARED BY P3 ENGINEERING

Aerotech

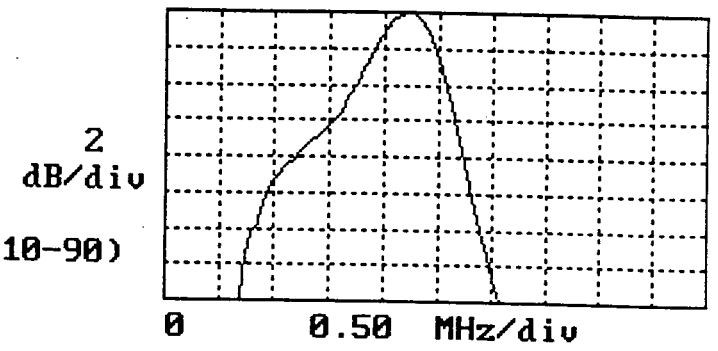
Transducer Certification

DATE: 09-17-1990
MODEL 113-262-043
SERIES: GAMMA STYLE: CR
SERIAL #J14032SP
DIAMETER: 1.0 in. CONNECTOR: BNC
NOMINAL FREQUENCY: 2.25 MHz

TEST SETUP--
TEST BLOCK THICKNESS: 3.000 MATERIAL: STEEL
ENERGY SETTING: 4
IMPEDANCE SETTING: 250 OHMS



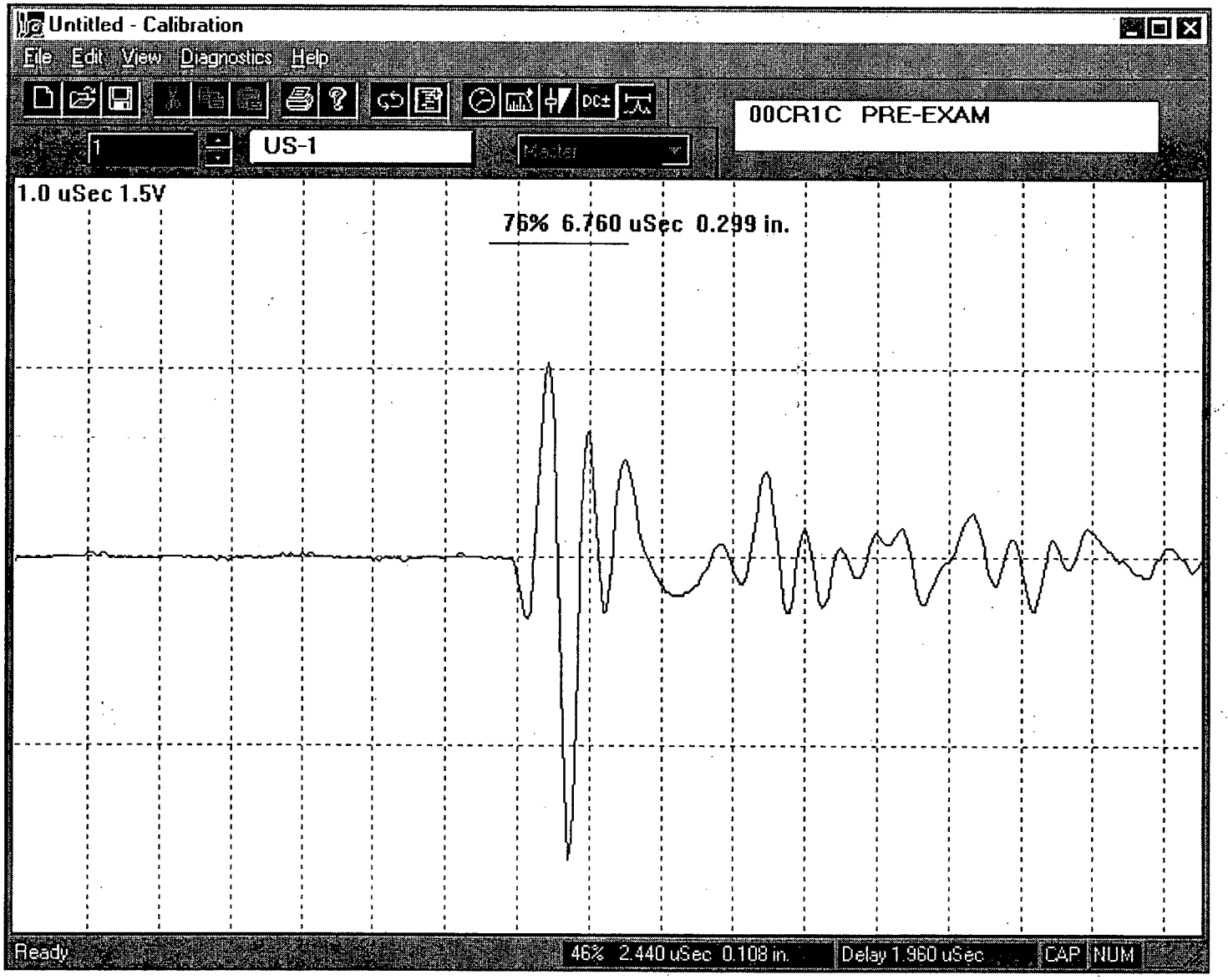
TEST DATA--
PEAK FREQUENCY: 2.20 MHz
RELATIVE SENSITIVITY: 73 dB
INSPECTOR: S.DIVEN

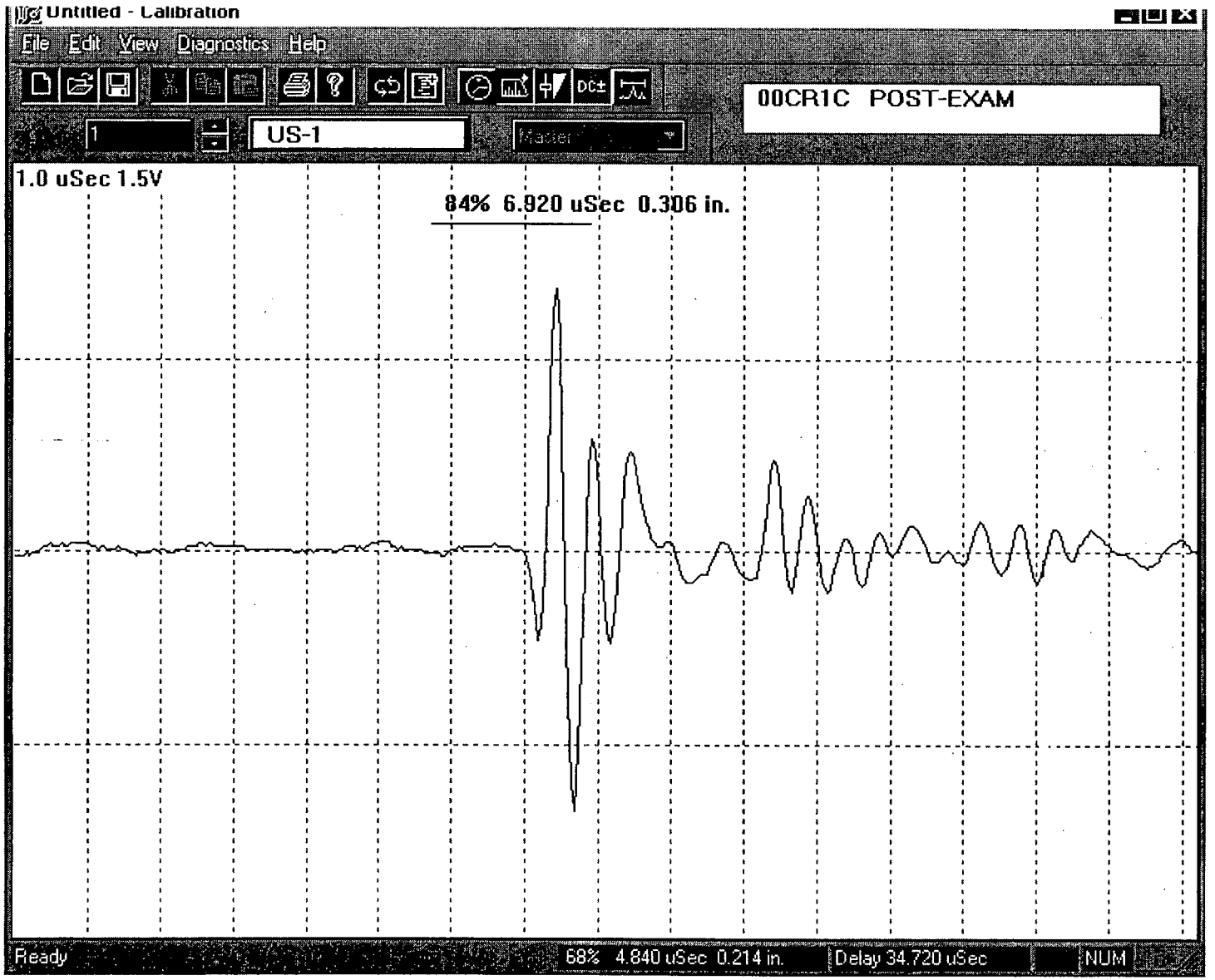


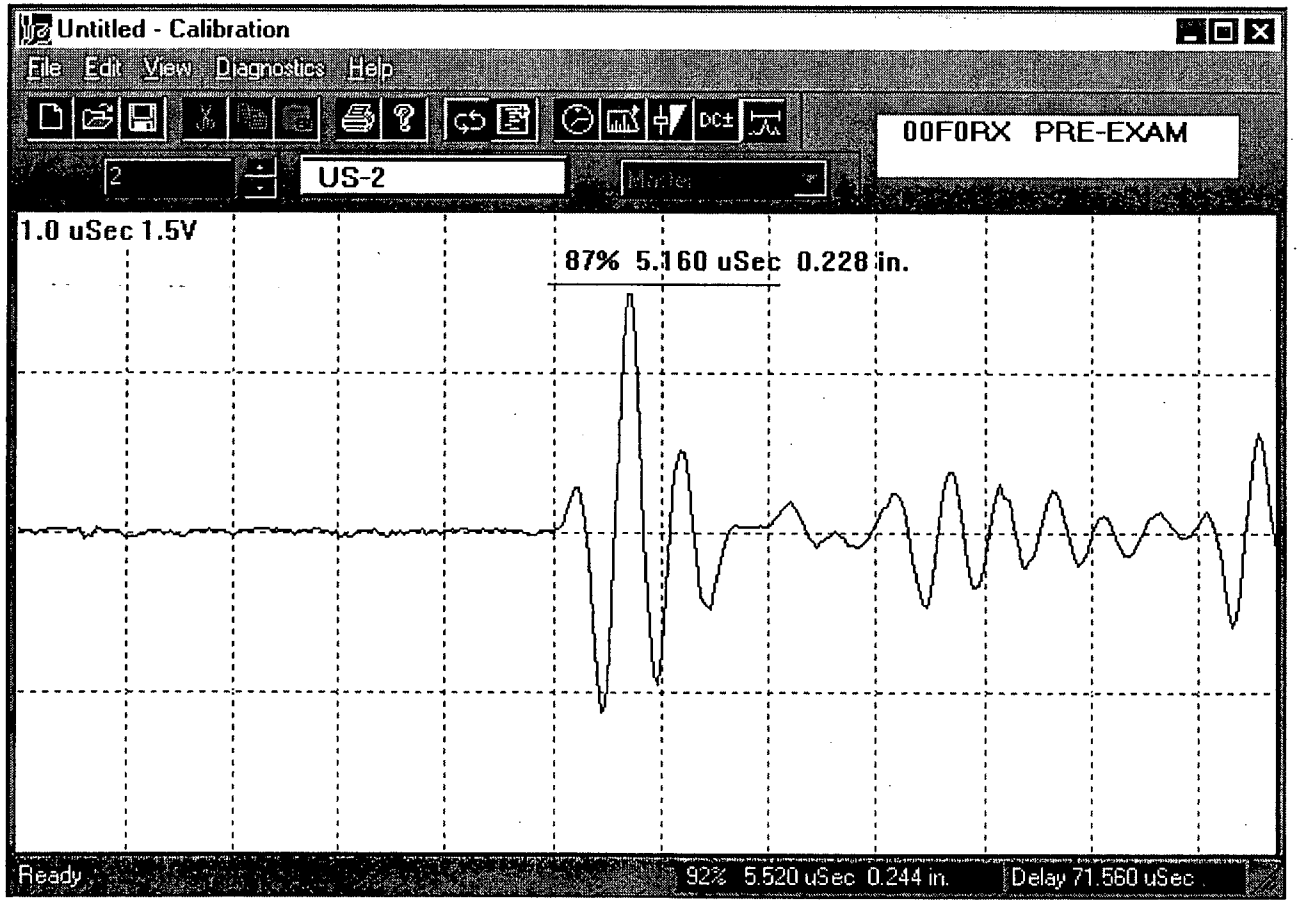
EQUIPMENT USED:
UTA-4 (S/N 103 CAL THRU 10-90)
TEK 2430 SCOPE (S/N B012909 CAL THRU 10-90)
TEK PEP301 CONTROLLER
PROCEDURE: WAVEFORM SHOWN IS THE FIRST RETURN ECHO FROM THE INDICATED TARGET

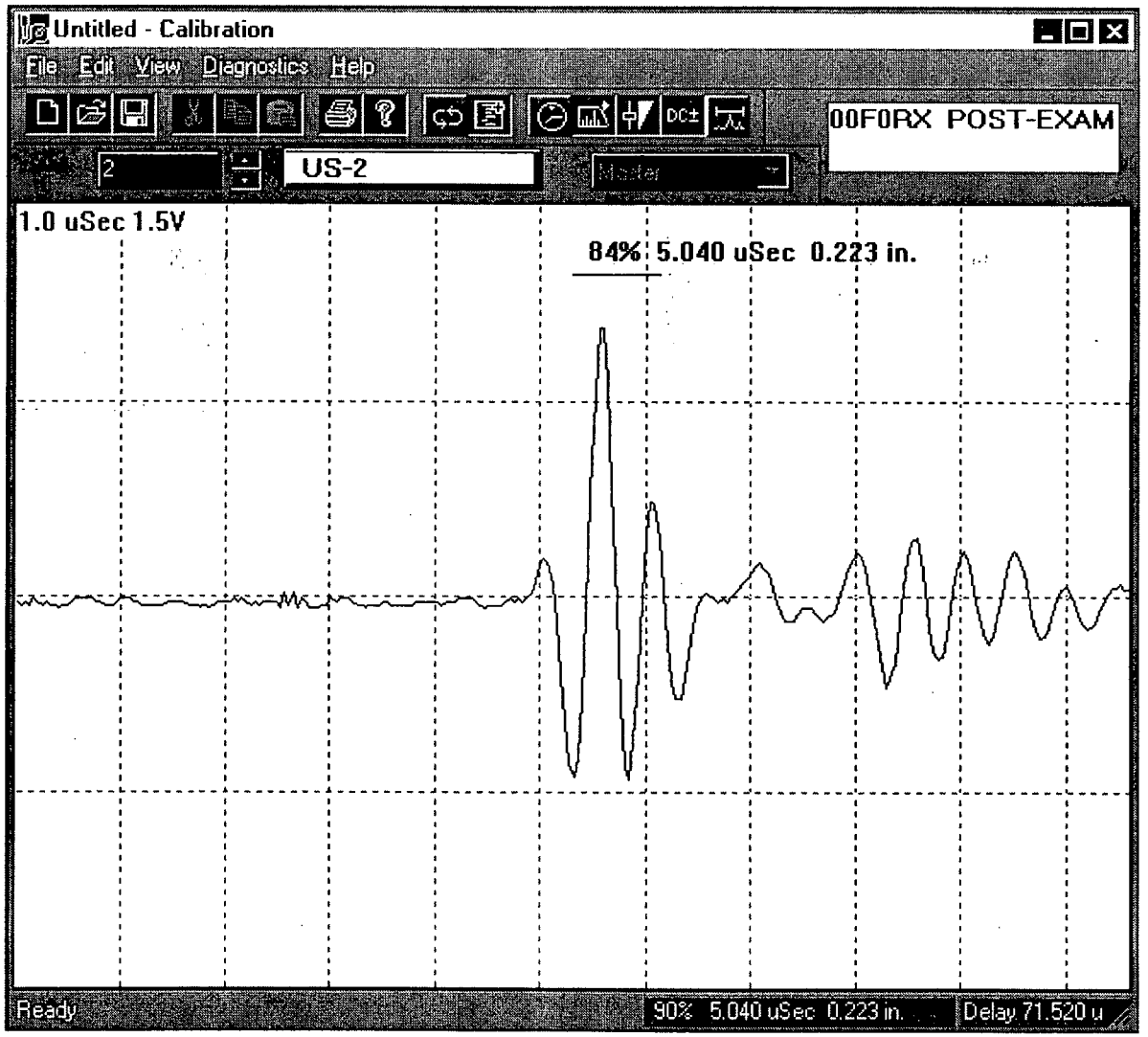
THE ACCURACY OF THE INSTRUMENT DESCRIBED ABOVE HAS BEEN CONFIRMED BY FACTORY STANDARD TEST EQUIPMENT AND LABORATORY REFERENCE STANDARDS TRACEABLE TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.

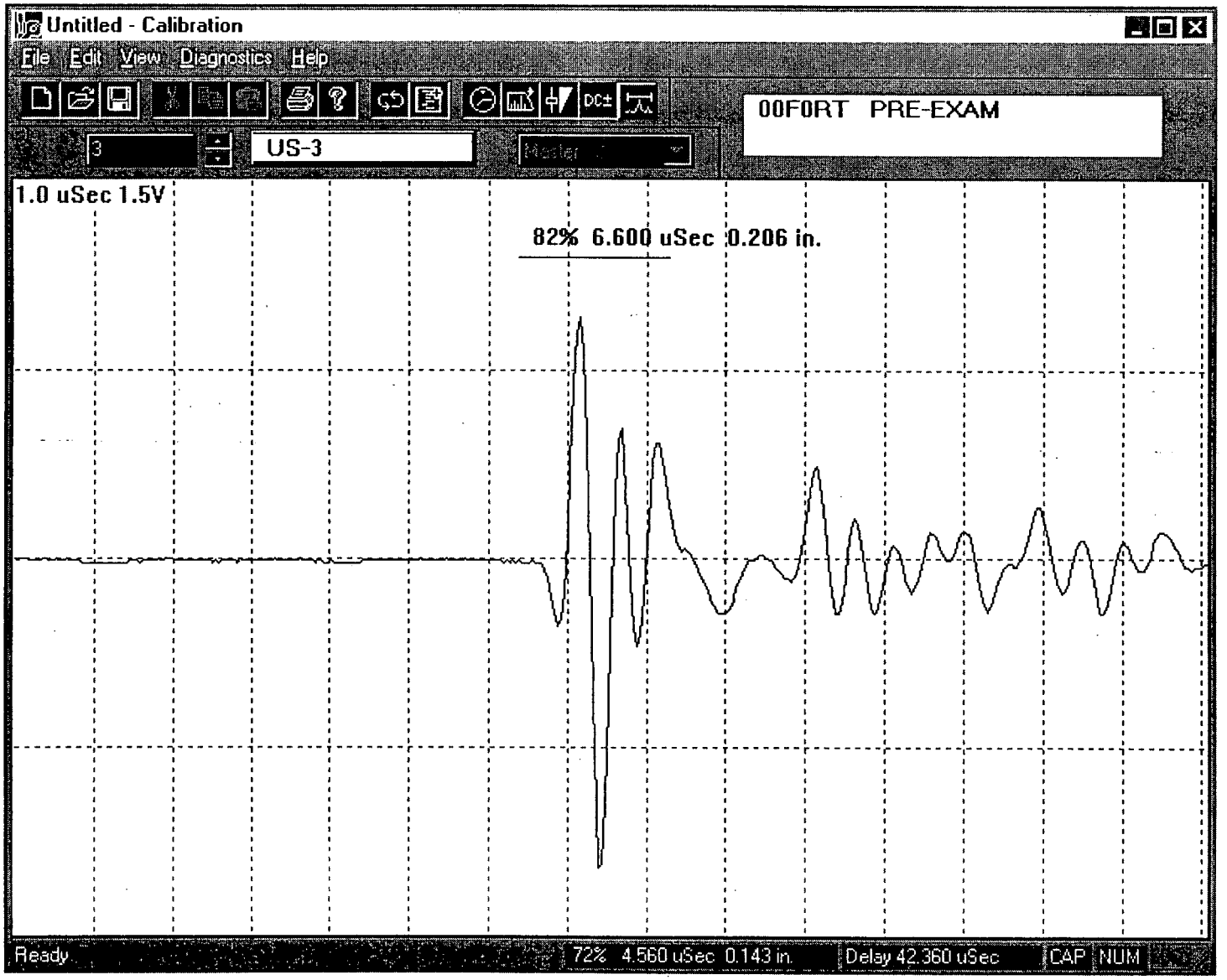
Krautkramer Branson
P.O. Box 350, Lewistown, PA 17044
(717) 242-0327 Fax: 717-242-2606

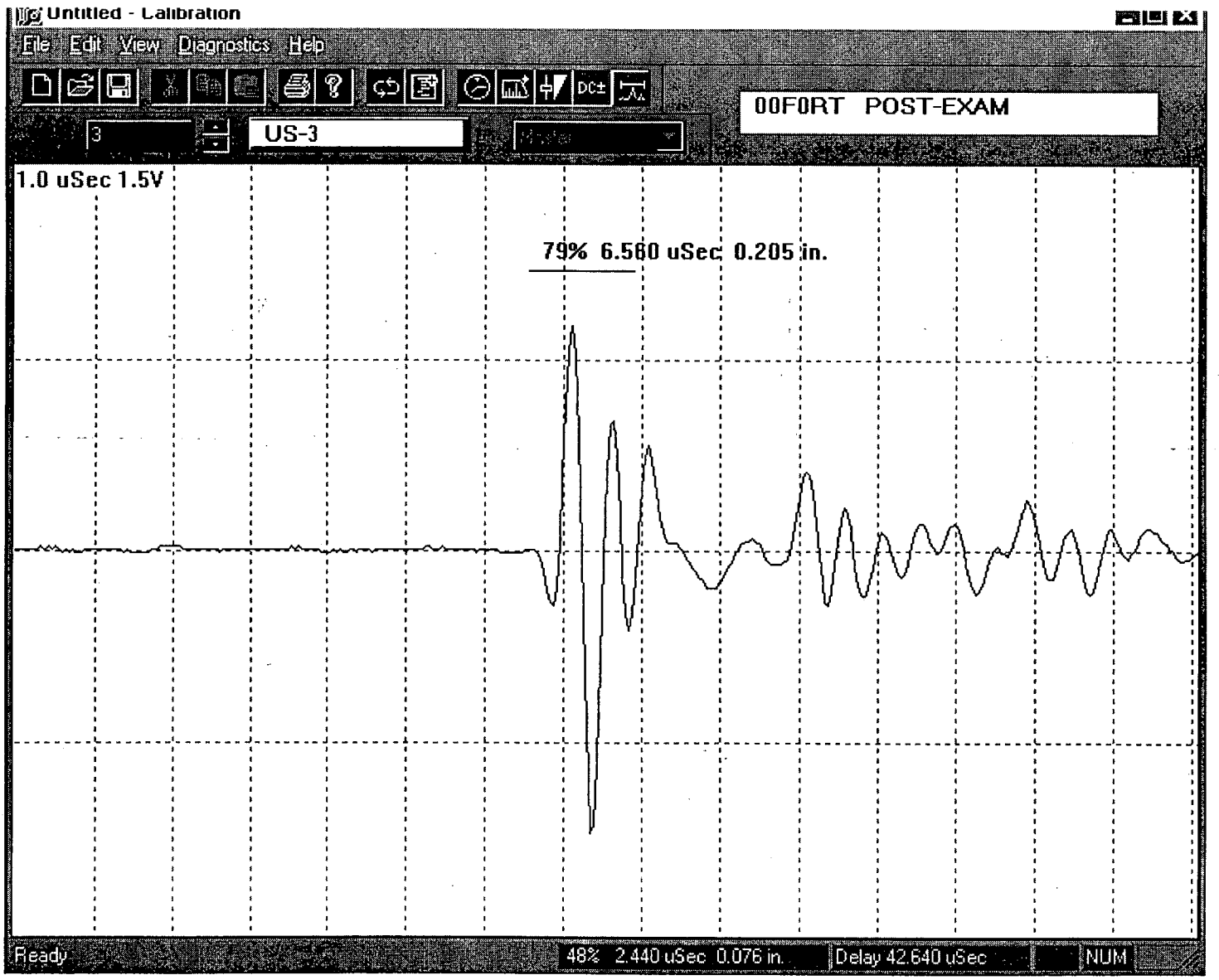

Untitled - Calibration
File Edit View Diagnostics Help
00CR1C PRE-EXAM
1
US-1
Master
1.0 uSec 1.5V
75% 6.760 uSec 0.299 in.
Ready
46% 2.440 uSec 0.108 in.
Delay 1.960 uSec
CAP
NUM

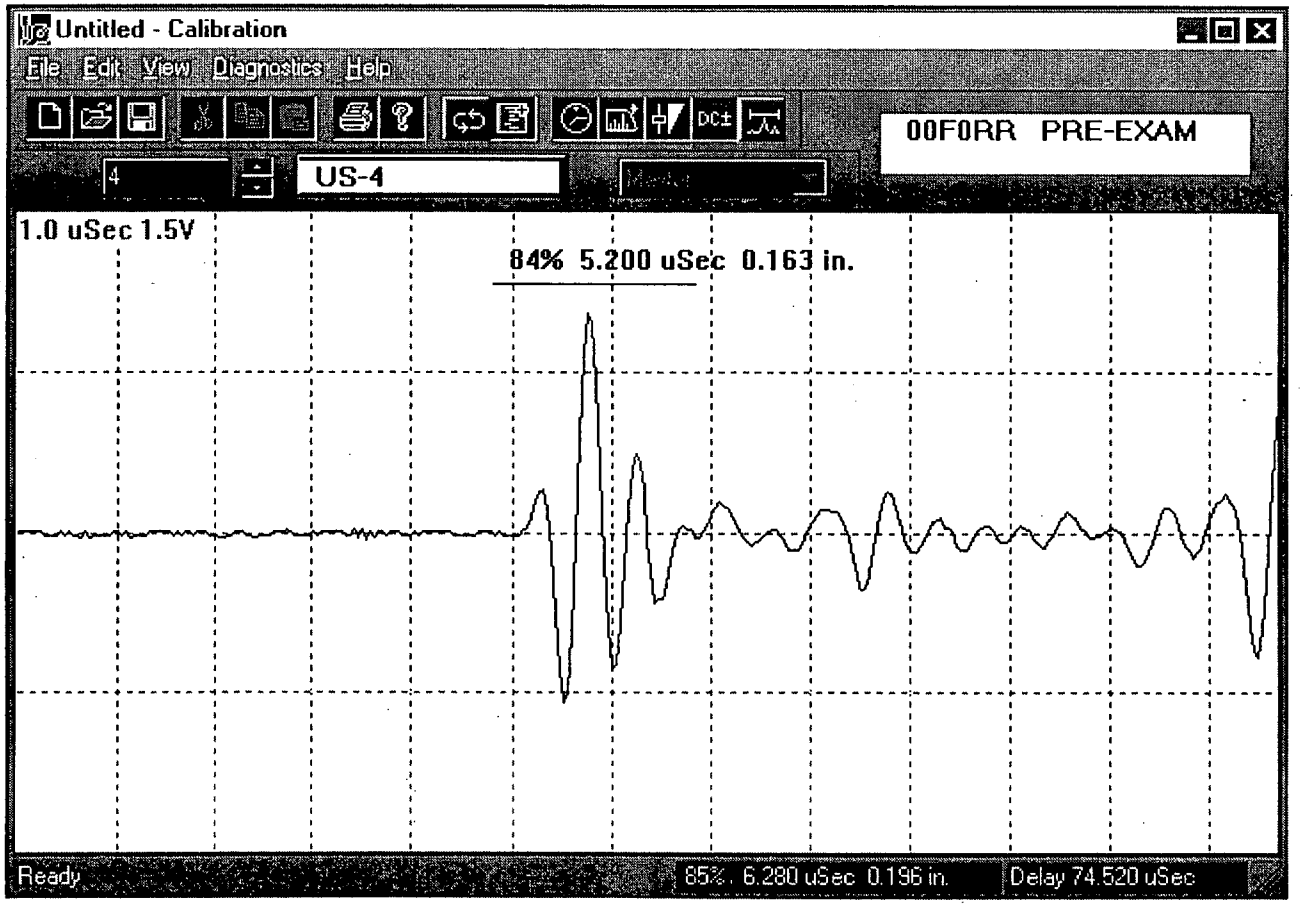

Untitled - Calibration
File Edit View Diagnostics Help
00CR1C POST-EXAM
US-1
1.0 uSec 1.5V
84% 6.920 uSec 0.306 in.
Ready
68% 4.840 uSec 0.214 in.
Delay 34.720 uSec
NUM

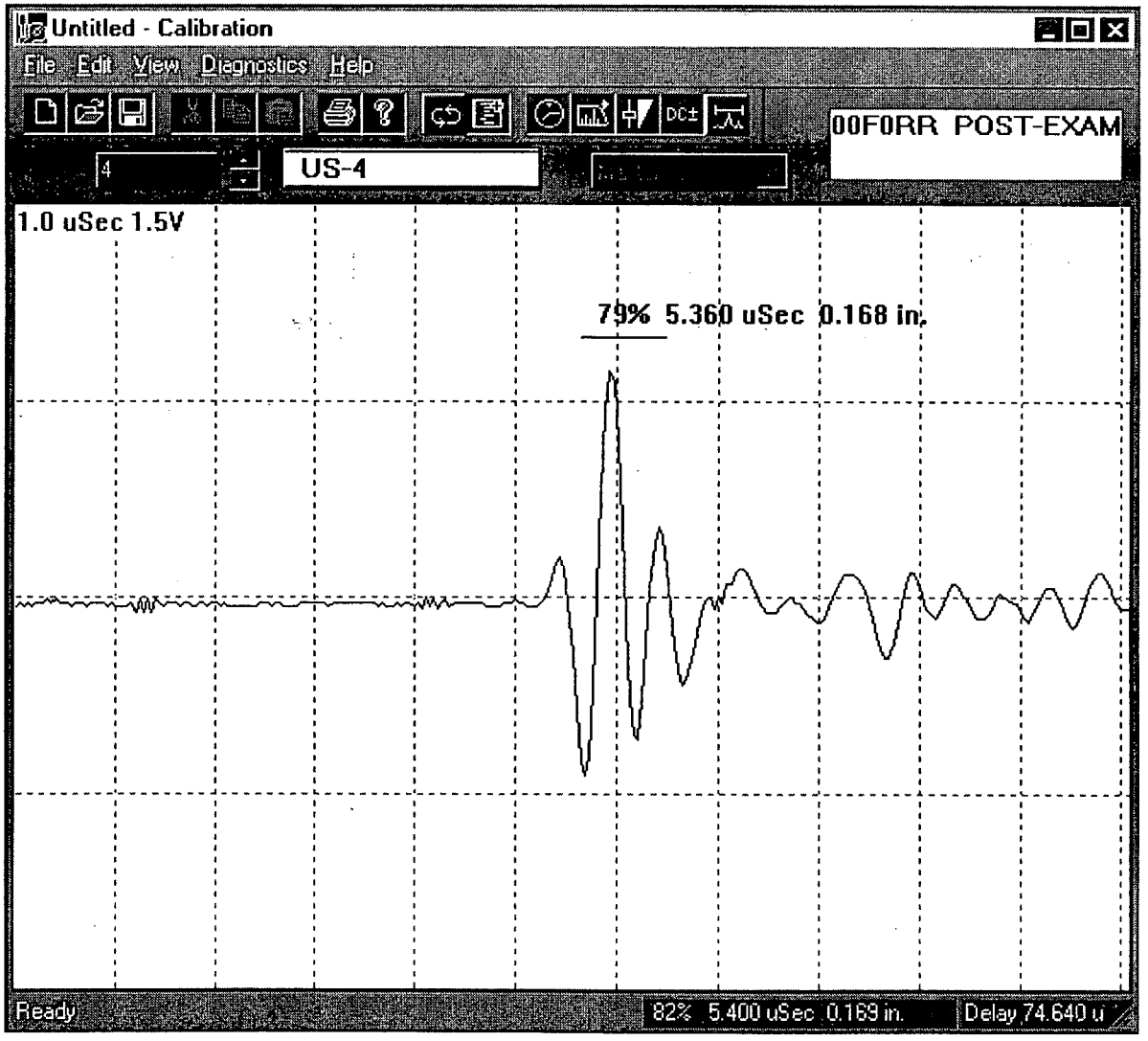

Untitled - Calibration
File Edit View Diagnostics Help
00F0RX PRE-EXAM
US-2
1.0 uSec 1.5V
87% 5.160 uSec 0.228 in.
Ready
92% 5.520 uSec 0.244 in.
Delay 71.560 uSec

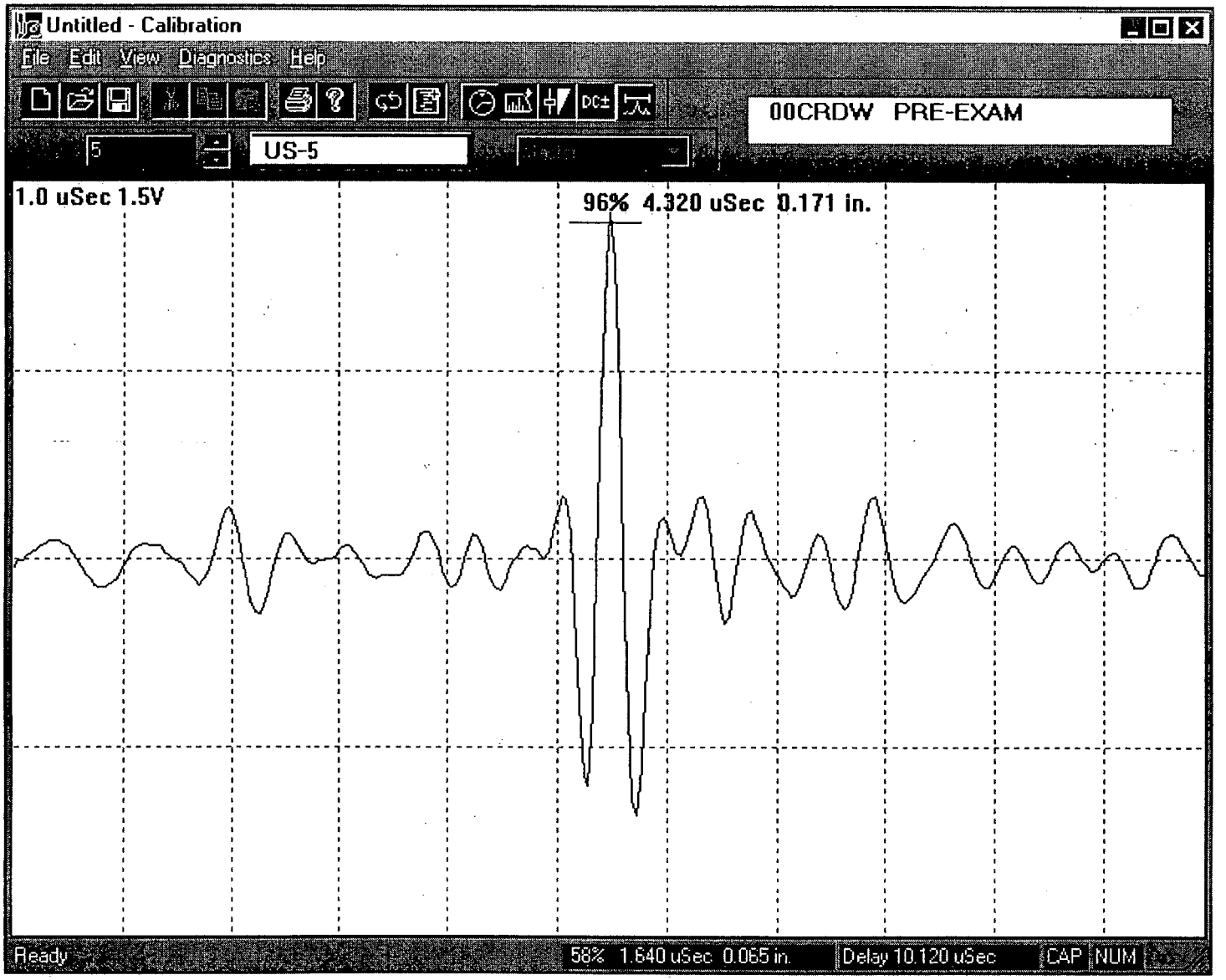

Untitled - Calibration
File Edit View Diagnostics Help
00F0RX POST-EXAM
2
US-2
Master
1.0 uSec 1.5V
84% 5.040 uSec 0.223 in.
Ready
90% 5.040 uSec 0.223 in.
Delay 71.520 u

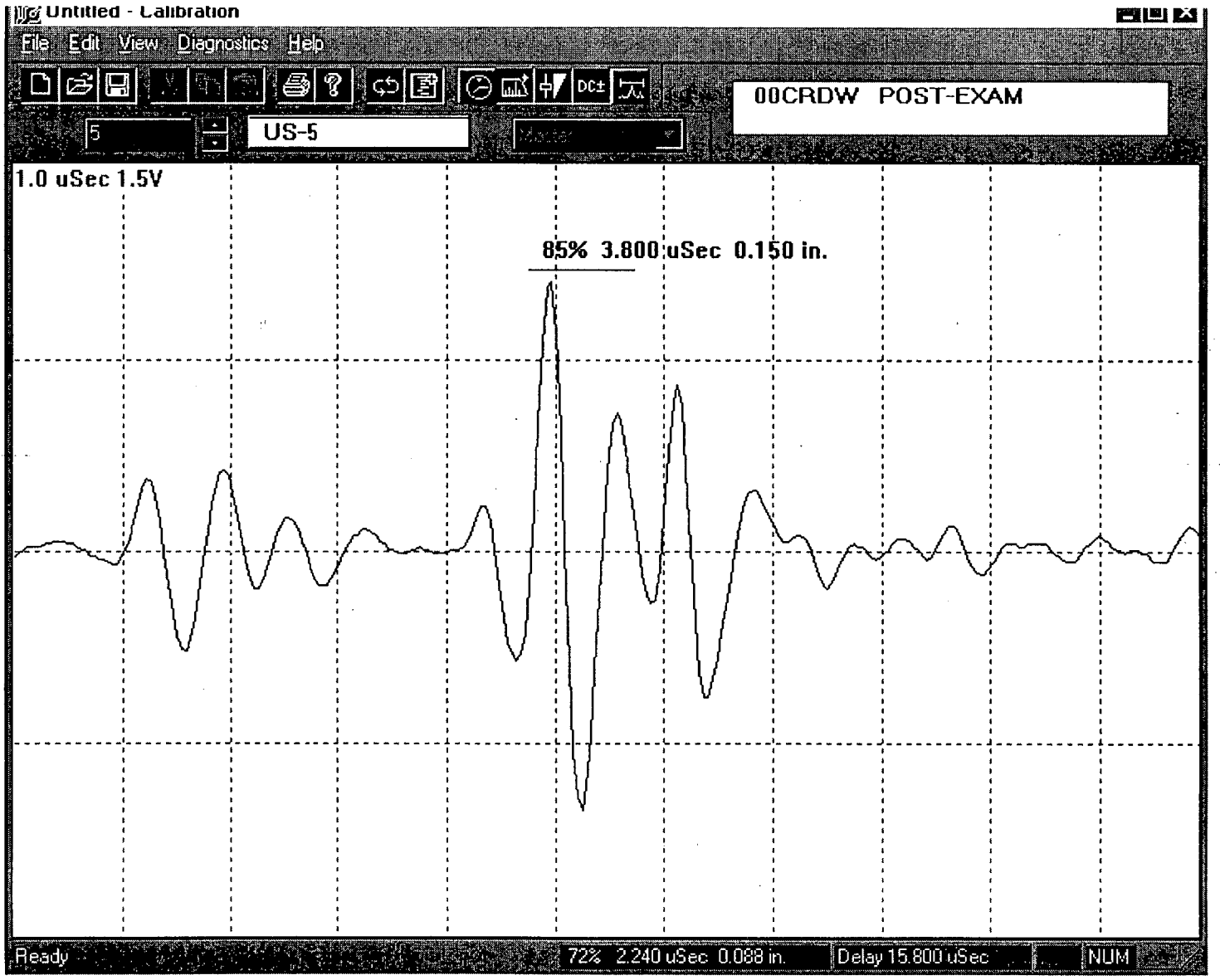

Untitled - Calibration
File Edit View Diagnostics Help
00FORT PRE-EXAM
3
US-3
1.0 uSec 1.5V
82% 6.600 uSec 0.206 in.
Ready
72% 4.560 uSec 0.143 in.
Delay 42.360 uSec
CAP NUM

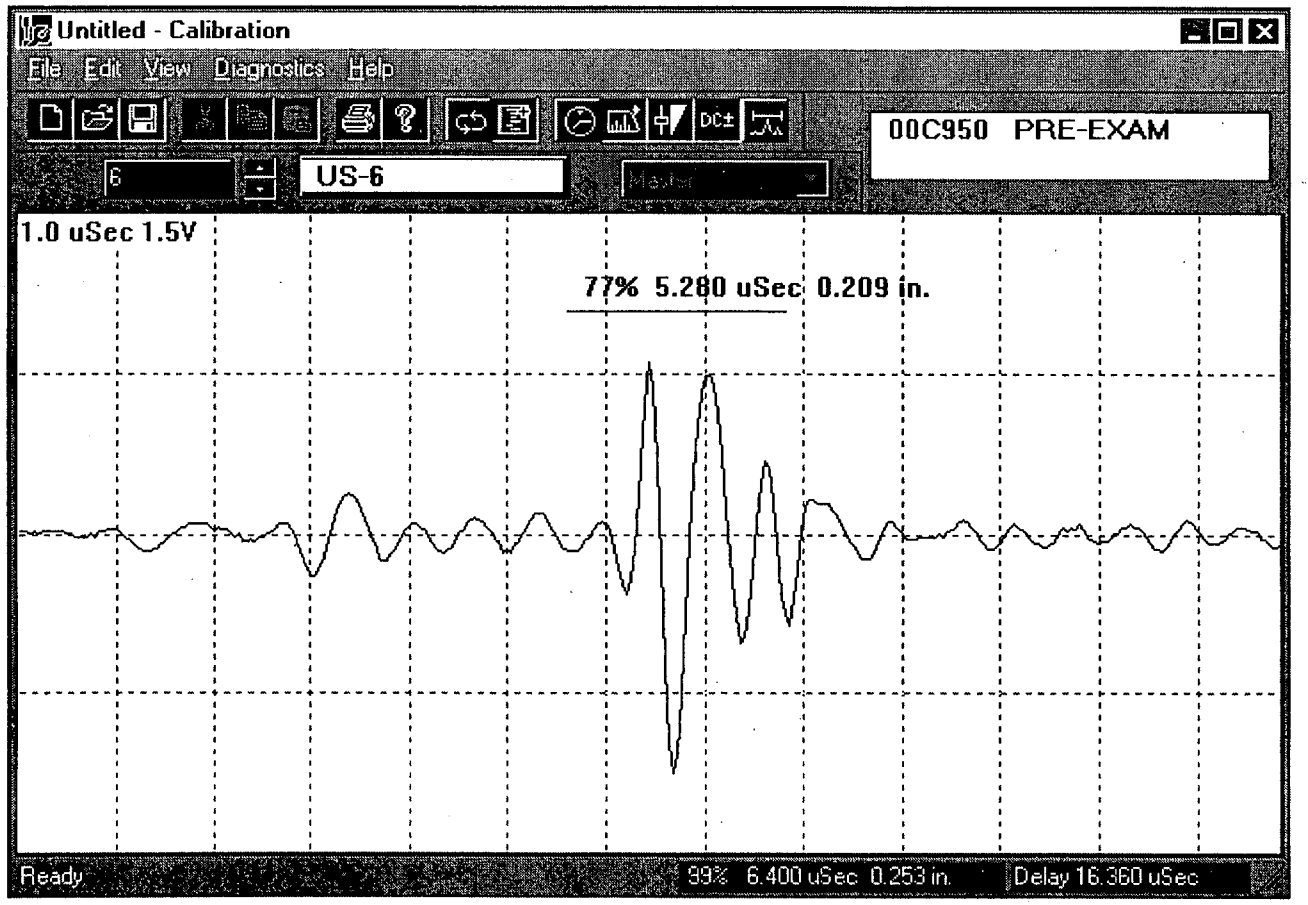

Untitled - Calibration
File Edit View Diagnostics Help
3
US-3
00FORT POST-EXAM
1.0 uSec 1.5V
79% 6.560 uSec 0.205 in.
Ready
48% 2.440 uSec 0.076 in.
Delay 42.640 uSec
NUM

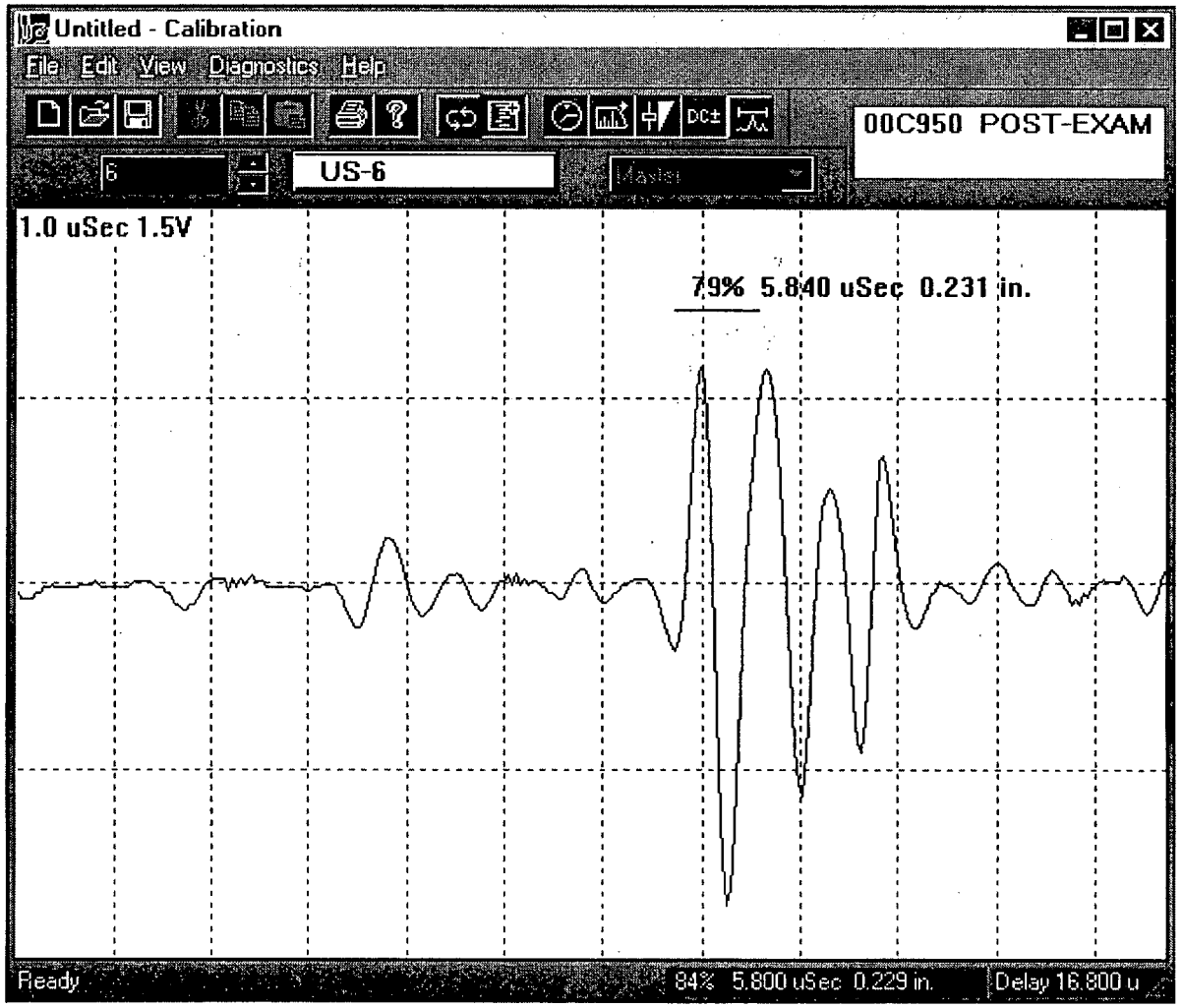

Untitled - Calibration
File Edit View Diagnostics Help
00FORR PRE-EXAM
4
US-4
1.0 uSec 1.5V
84% 5.200 uSec 0.163 in.
Ready
85% 6.280 uSec 0.196 in.
Delay 74.520 uSec

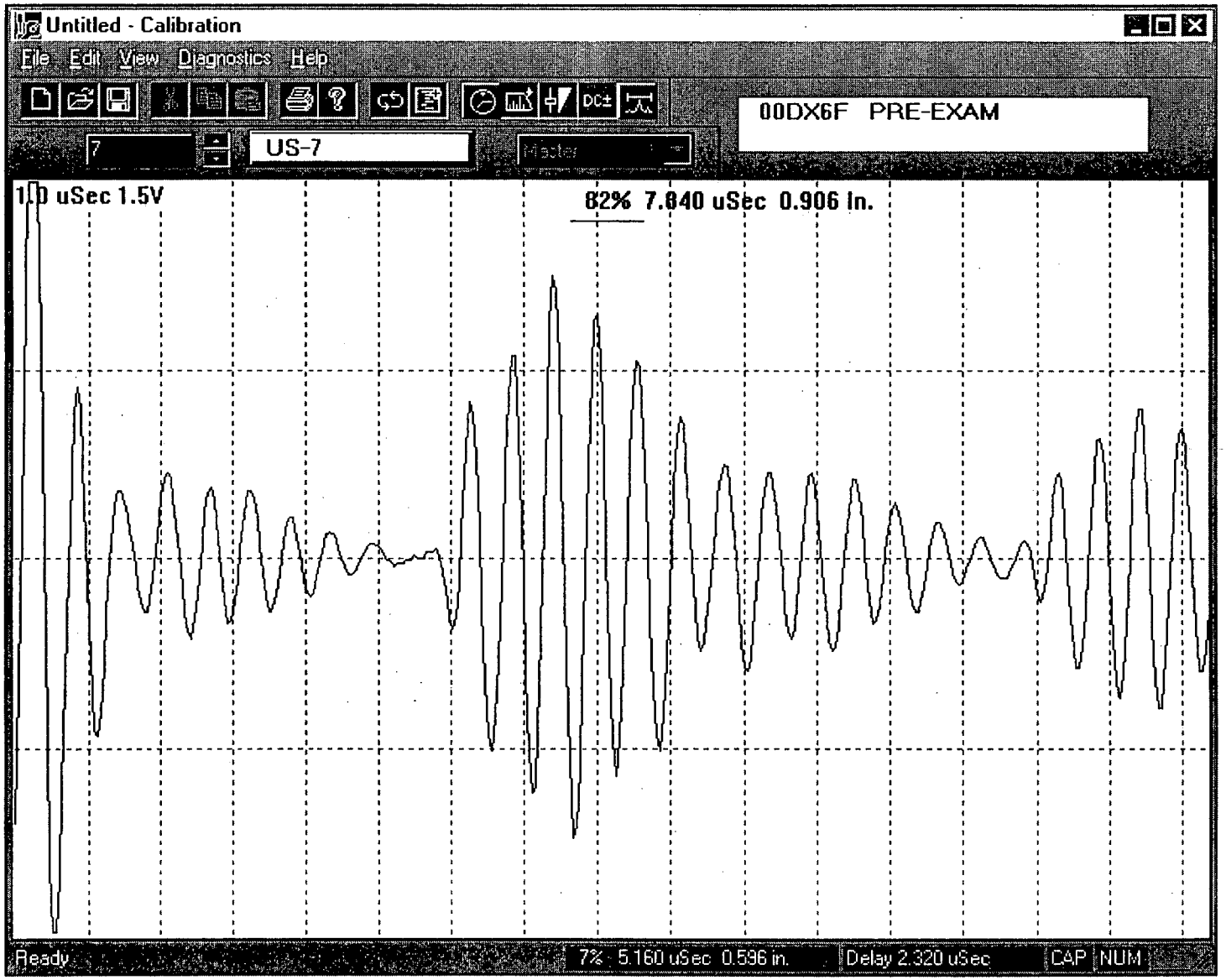

Untitled - Calibration
File Edit View Diagnostics Help
00FORR POST-EXAM
US-4
1.0 uSec 1.5V
79% 5.360 uSec 0.168 in.
Ready
82% 5.400 uSec 0.169 in.
Delay 74.640 u

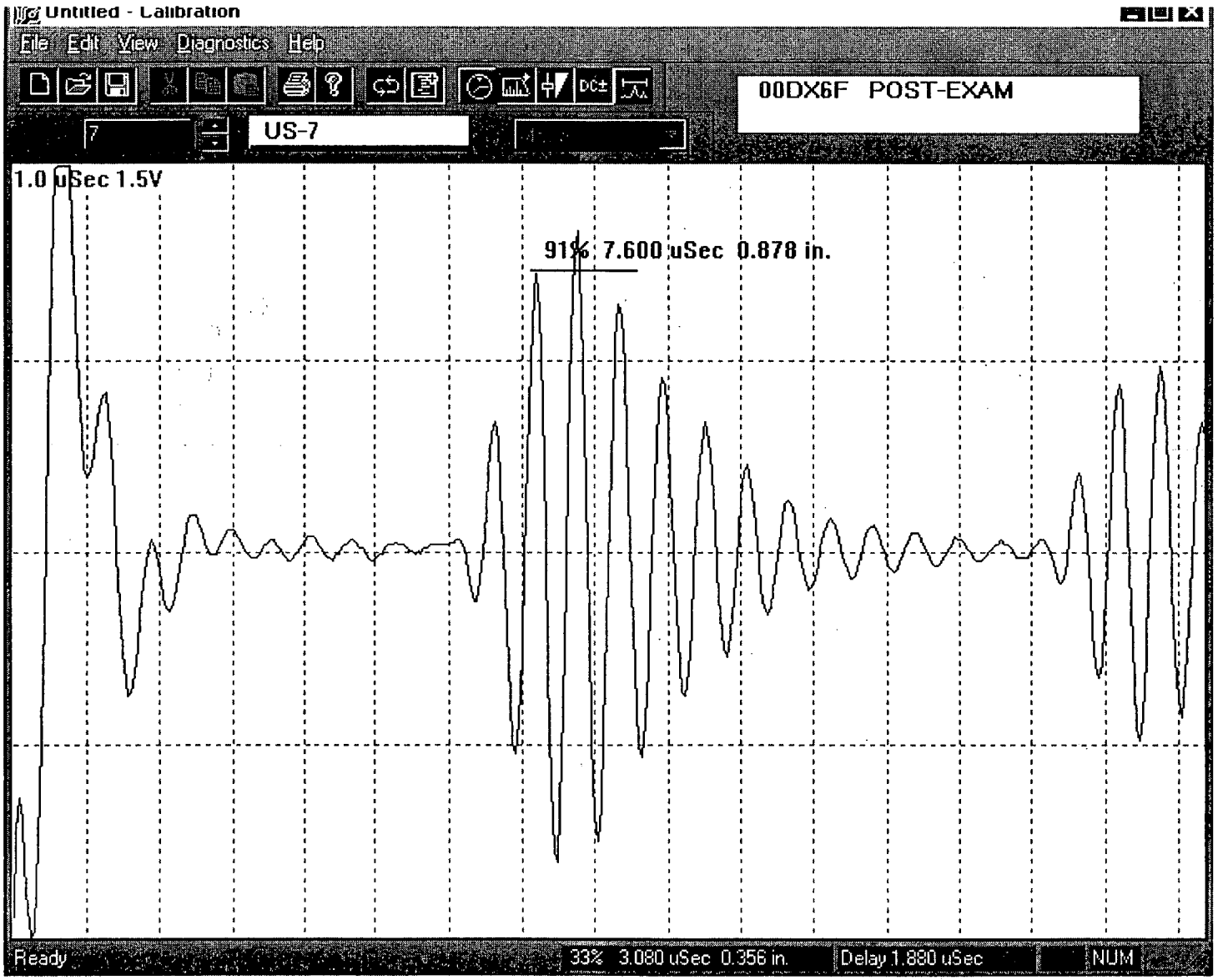

Untitled - Calibration
File Edit View Diagnostics Help
00CRDW PRE-EXAM
5
US-5
1.0 uSec 1.5V
96% 4.320 uSec 0.171 in.
Ready
58% 1.640 uSec 0.065 in.
Delay 10.120 uSec
CAP
NUM

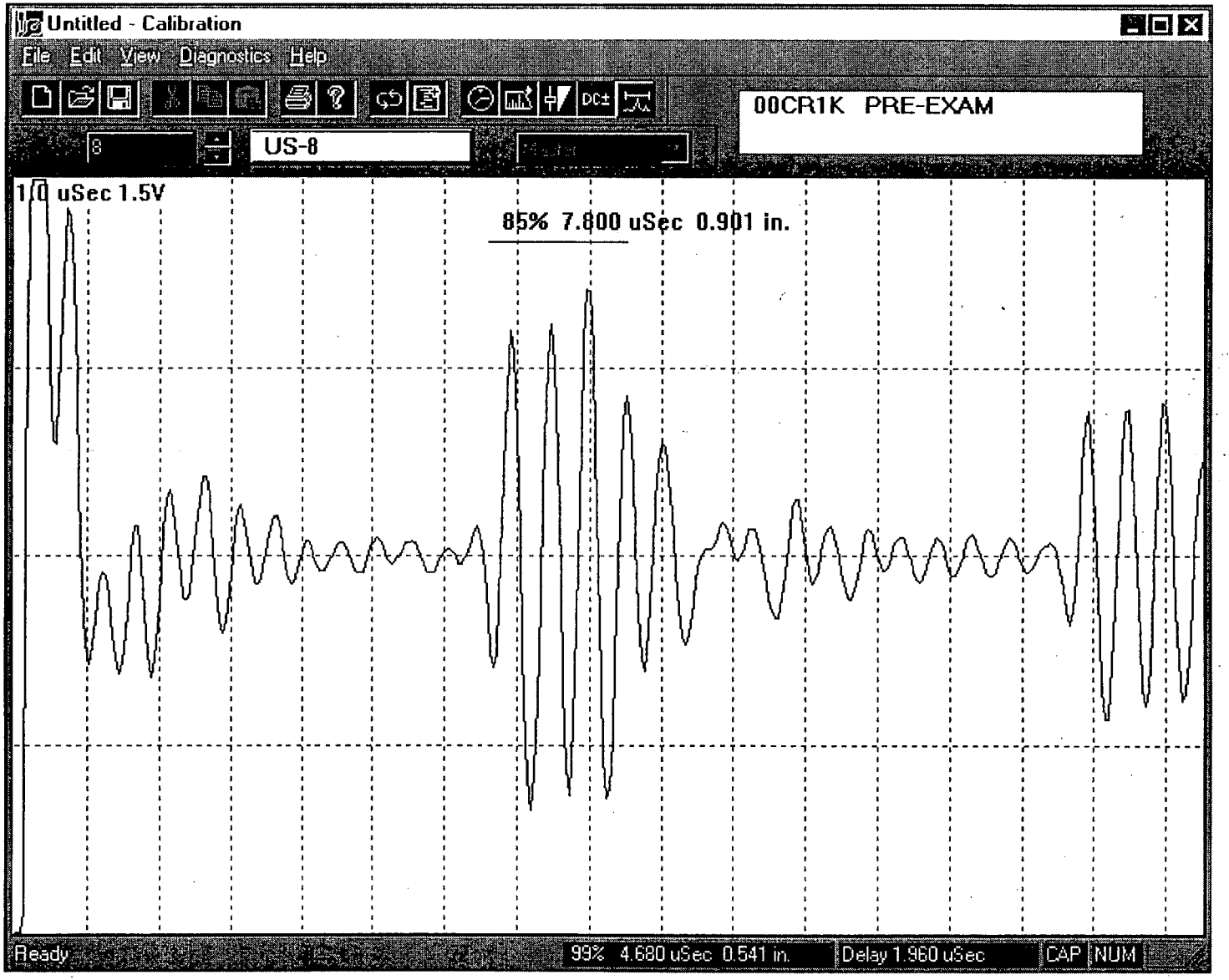

Untitled - Calibration
File Edit View Diagnostics Help
5
US-5
00CRDW POST-EXAM
1.0 uSec 1.5V
85% 3.800 uSec 0.150 in.
Ready
72% 2.240 uSec 0.088 in.
Delay 15.800 uSec
NUM

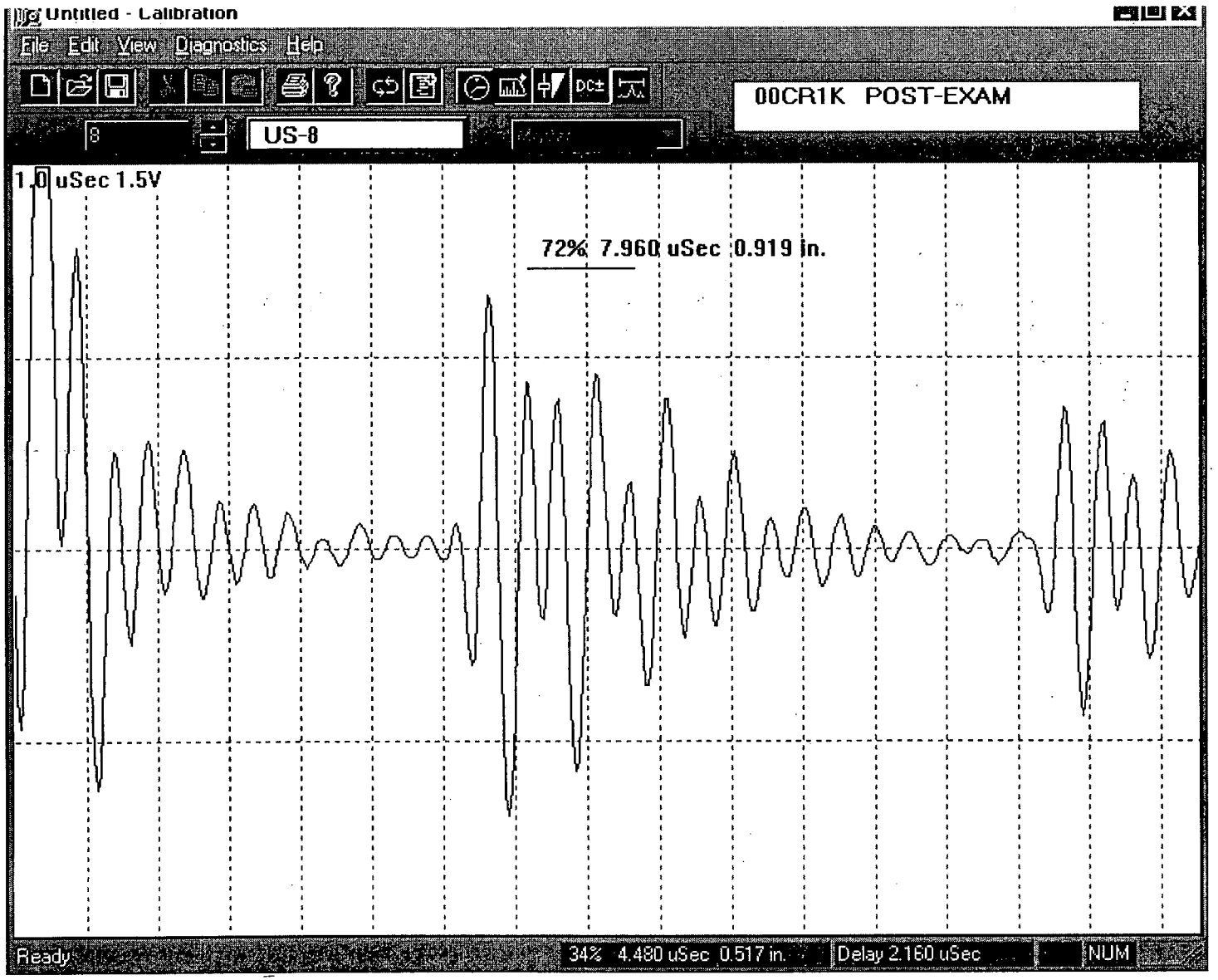

Untitled - Calibration
File Edit View Diagnostics Help
00C950 PRE-EXAM
6
US-6
1.0 uSec 1.5V
77% 5.280 uSec 0.209 in.
Ready
99% 6.400 uSec 0.253 in.
Delay 16.360 uSec

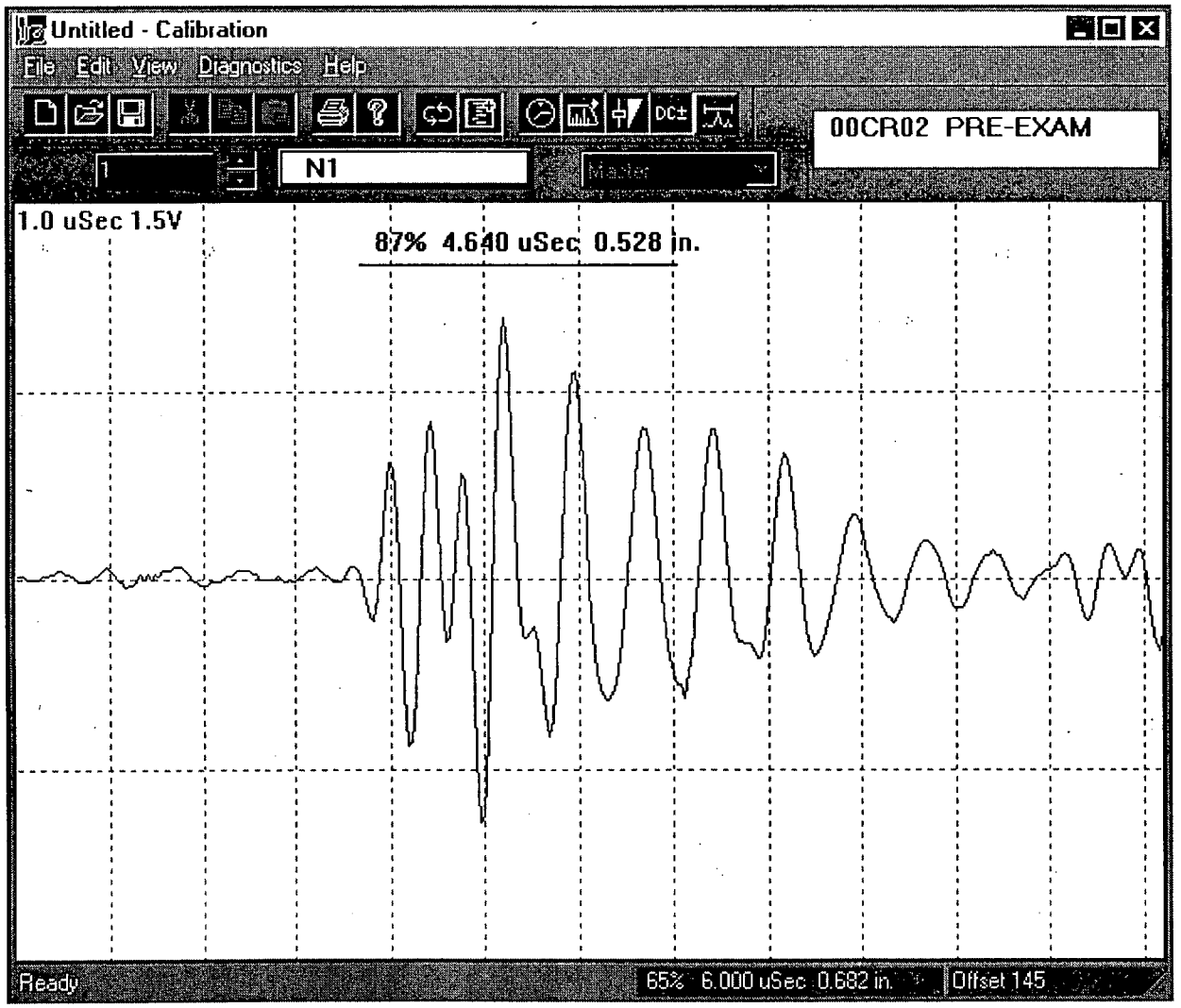

Untitled - Calibration
File Edit View Diagnostics Help
00C950 POST-EXAM
US-6
1.0 uSec 1.5V
79% 5.840 uSec 0.231 in.
Ready
84% 5.800 uSec 0.229 in.
Delay 16.800 u

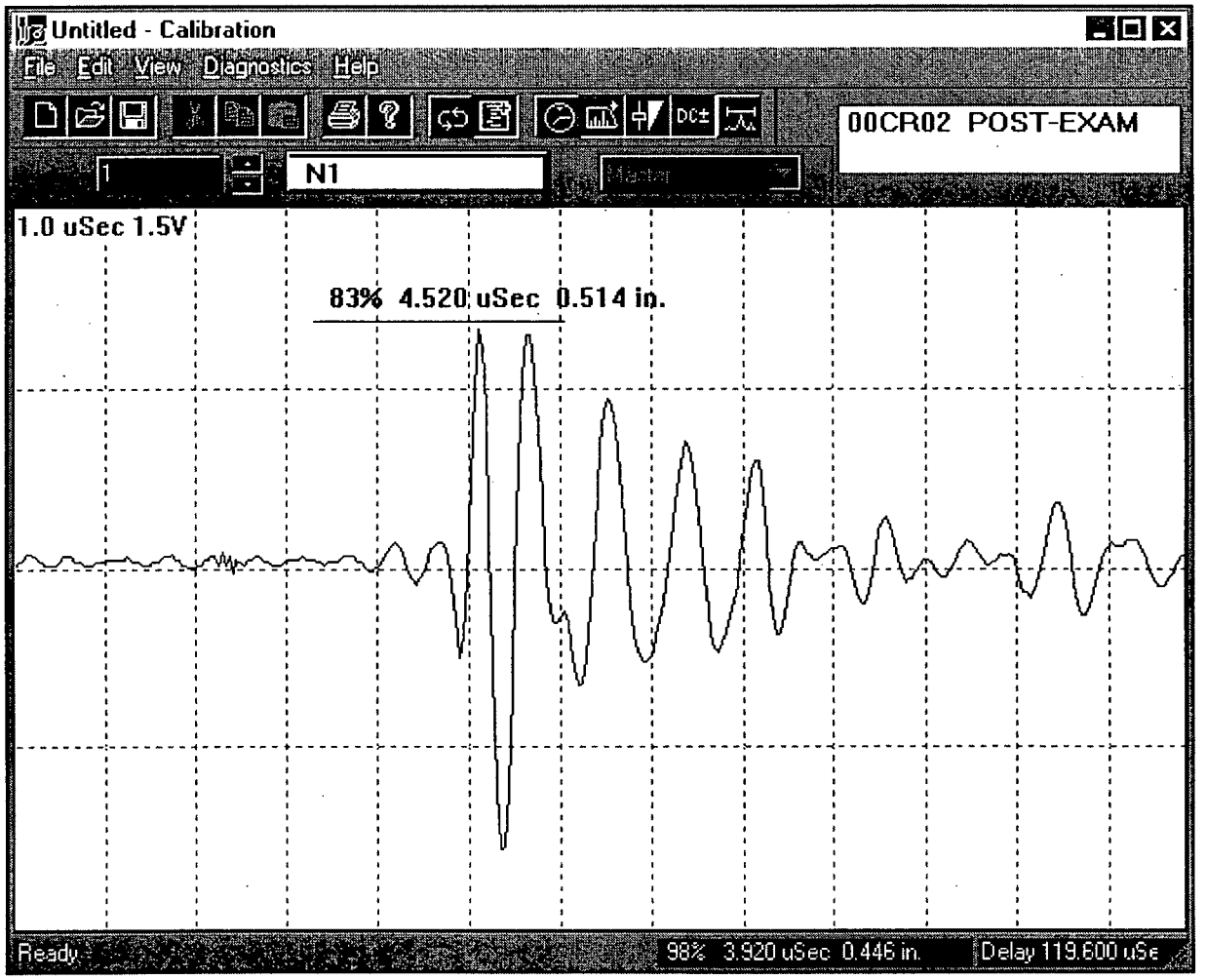

Untitled - Calibration
File Edit View Diagnostics Help
00DX6F PRE-EXAM
7
US-7
Master
1.0 uSec 1.5V
82% 7.840 uSec 0.906 in.
Ready
7% 5.160 uSec 0.596 in.
Delay 2.320 uSec
CAP NUM

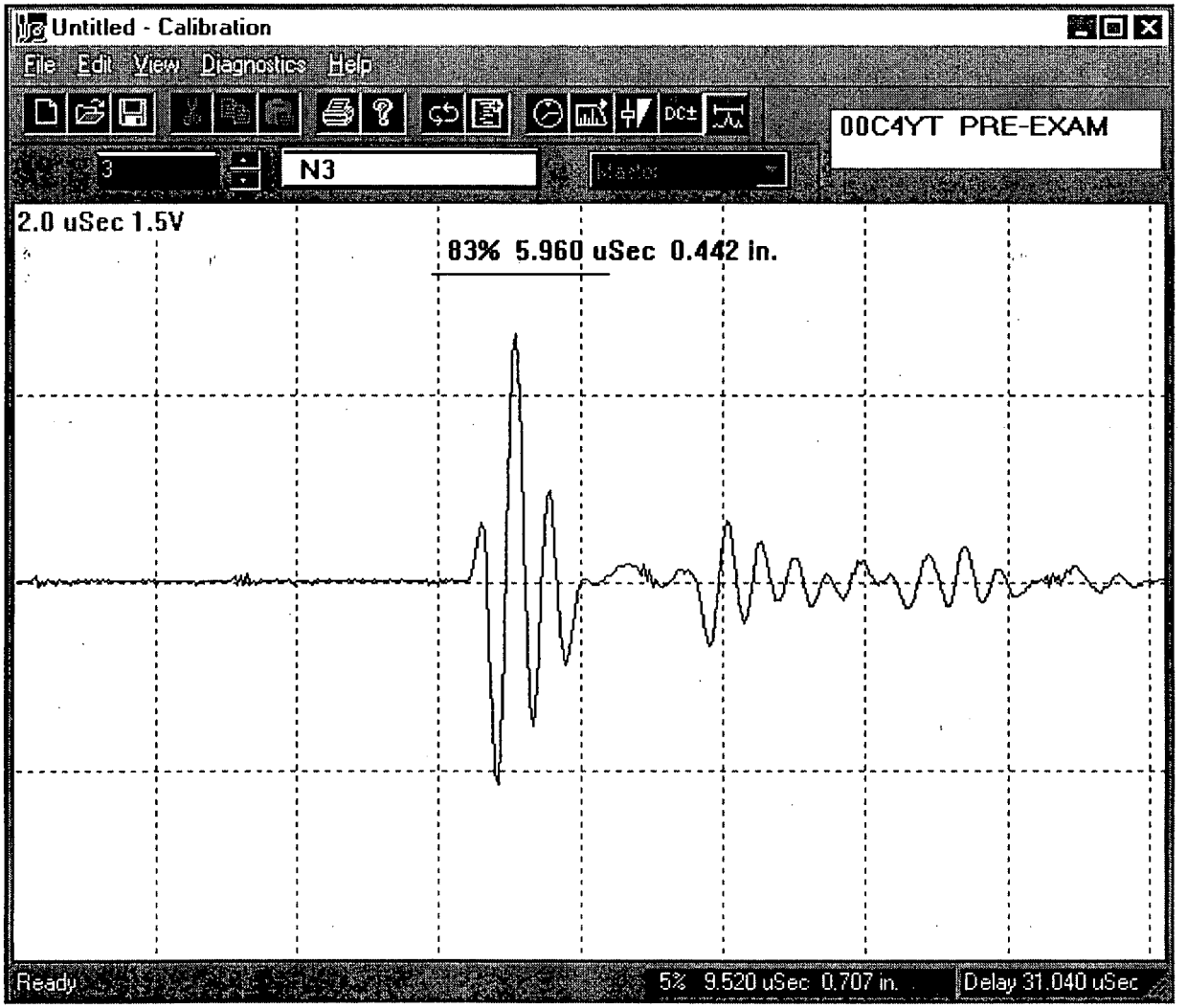

Untitled - Calibration
File Edit View Diagnostics Help
00DX6F POST-EXAM
7
US-7
1.0 uSec 1.5V
91% 7.600 uSec 0.878 in.
Ready
33% 3.080 uSec 0.356 in.
Delay 1.880 uSec
NUM

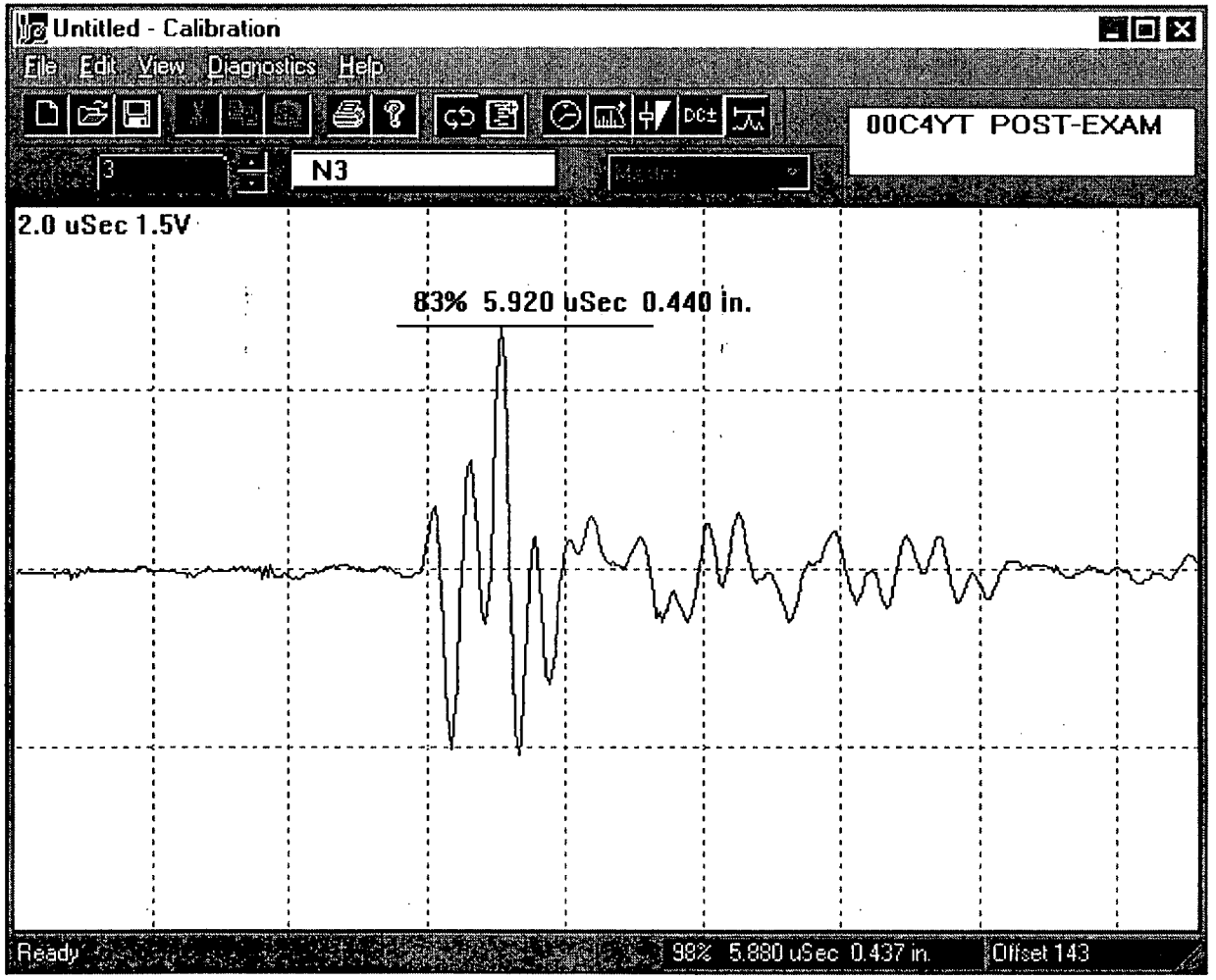

Untitled - Calibration
File Edit View Diagnostics Help
00CR1K PRE-EXAM
US-8
1.0 uSec 1.5V
85% 7.800 uSec 0.901 in.
Ready
99% 4.680 uSec 0.541 in.
Delay 1.960 uSec
CAP
NUM

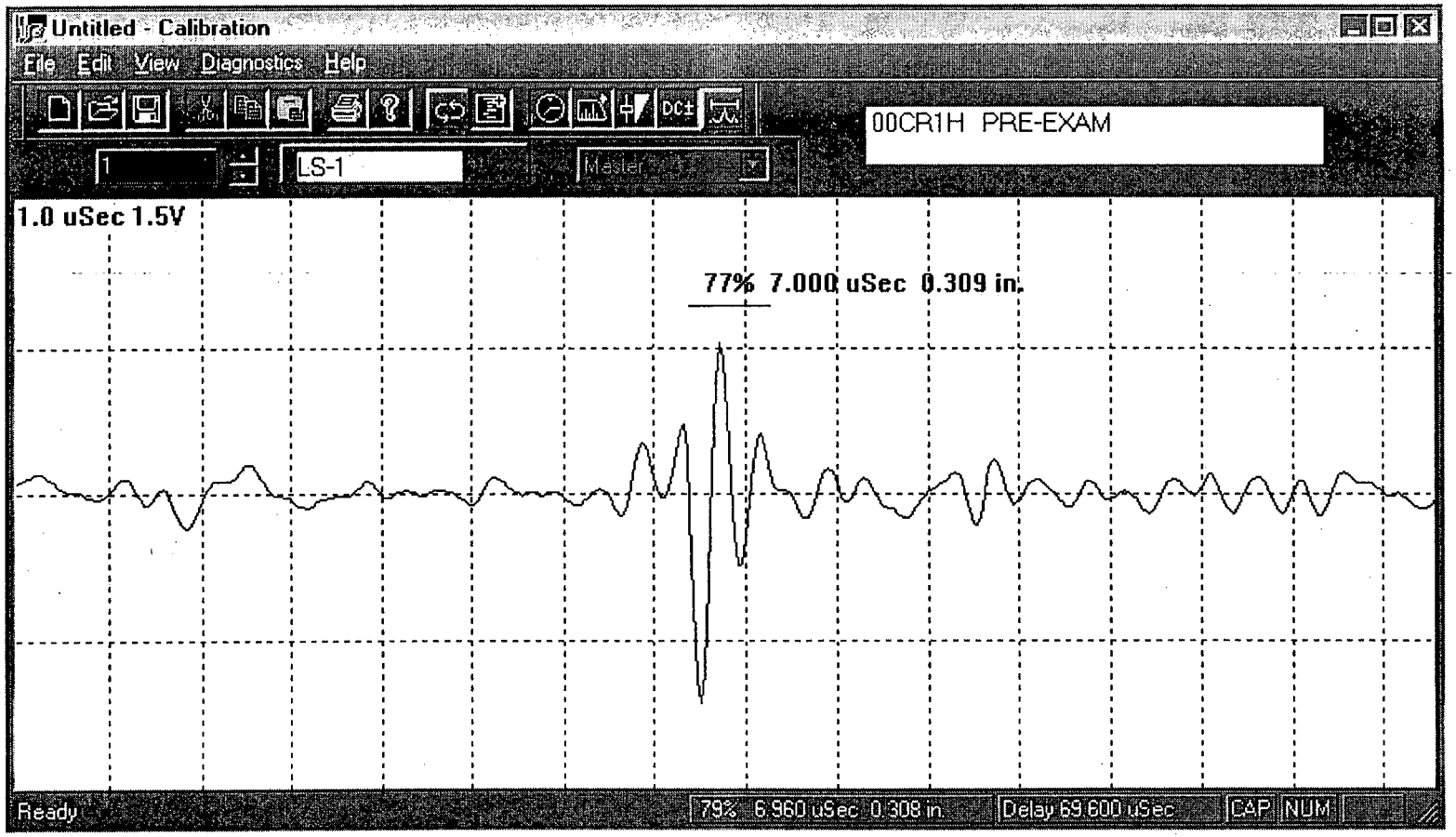

Untitled - Calibration
File Edit View Diagnostics Help
00CR1K POST-EXAM
8
US-8
1.0 uSec 1.5V
72% 7.960 uSec 0.919 in.
Ready
34% 4.480 uSec 0.517 in.
Delay 2.160 uSec
NUM

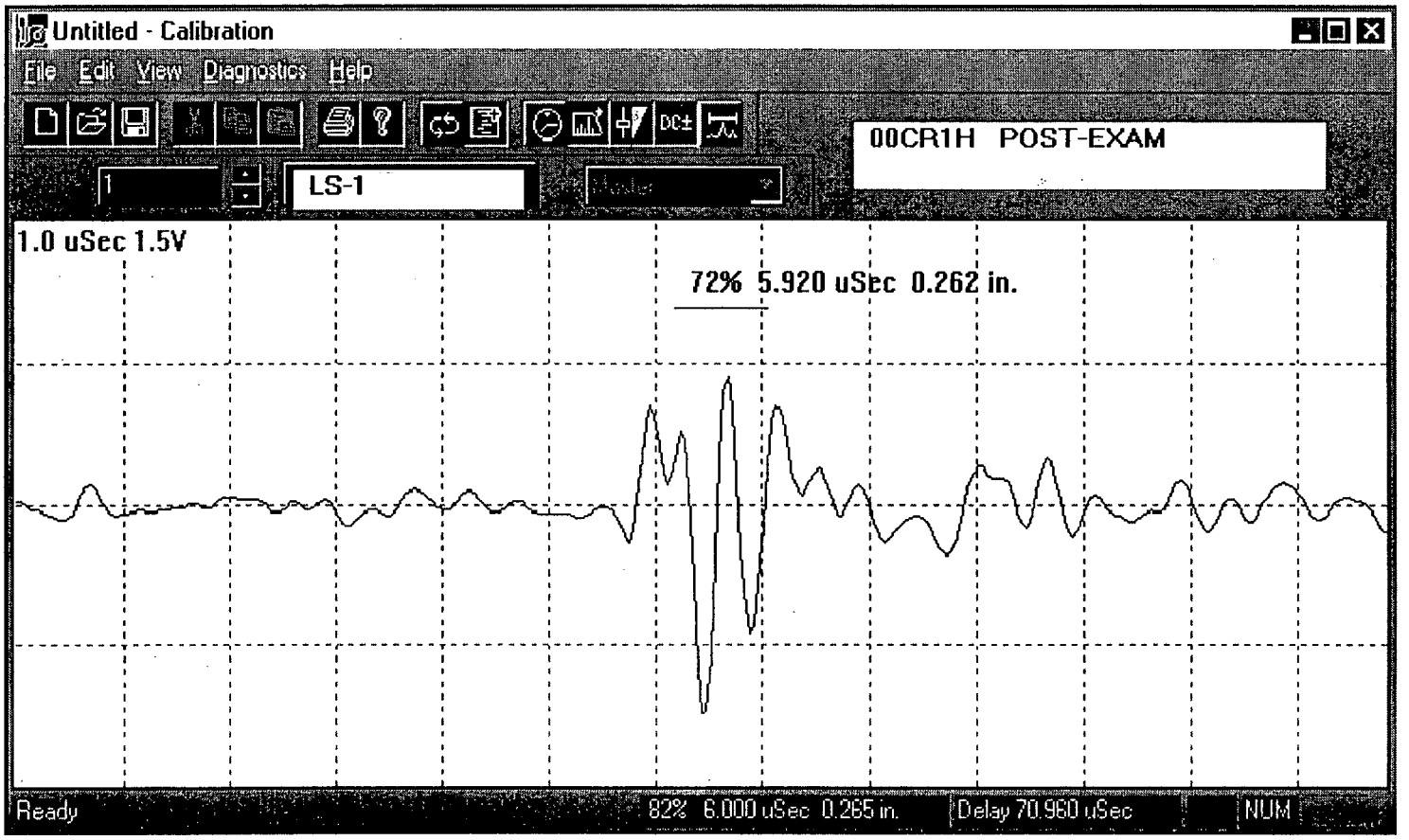

Untitled - Calibration
File Edit View Diagnostics Help
00CR02 PRE-EXAM
N1
Master
1.0 uSec 1.5V
87% 4.640 uSec 0.528 in.
Ready
65% 6.000 uSec 0.682 in.
Offset 145

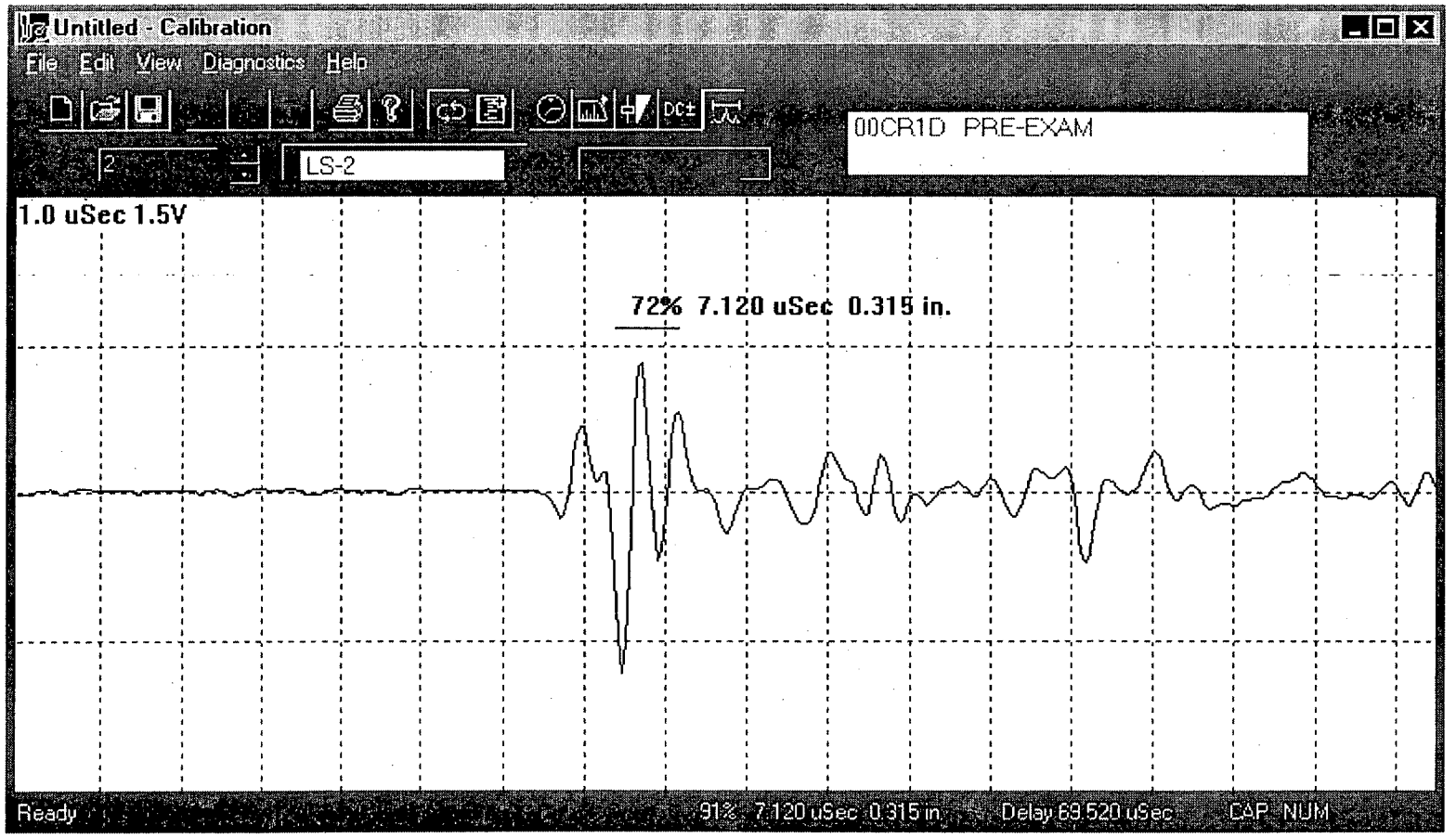

Untitled - Calibration
File Edit View Diagnostics Help
00CR02 POST-EXAM
N1
1.0 uSec 1.5V
83% 4.520 uSec 0.514 in.
Ready
98% 3.920 uSec 0.446 in.
Delay 119.600 uSe

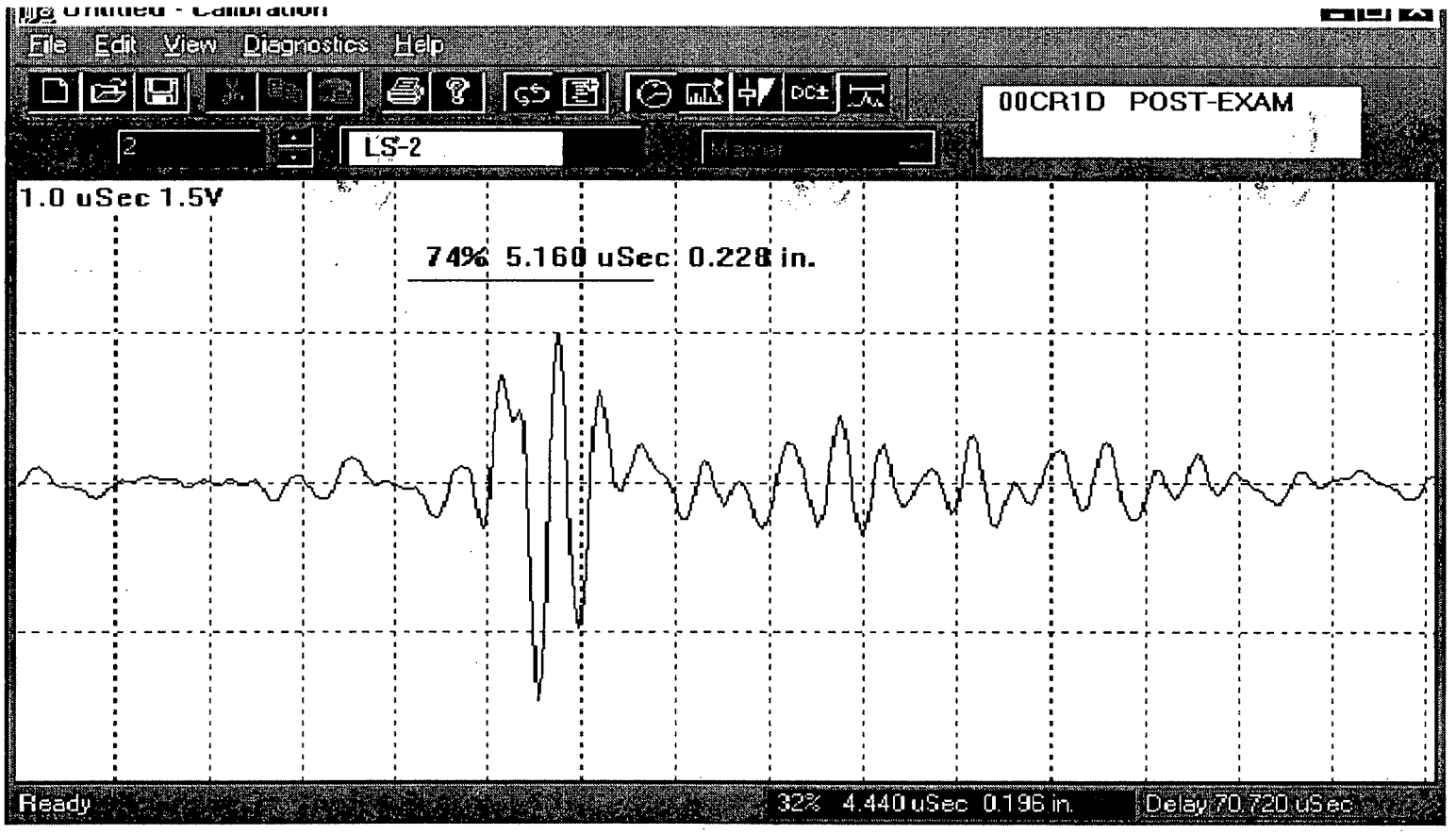

Untitled - Calibration
File Edit View Diagnostics Help
00C4YT PRE-EXAM
3
N3
2.0 uSec 1.5V
83% 5.960 uSec 0.442 in.
Ready
5% 9.520 uSec 0.707 in.
Delay 31.040 uSec

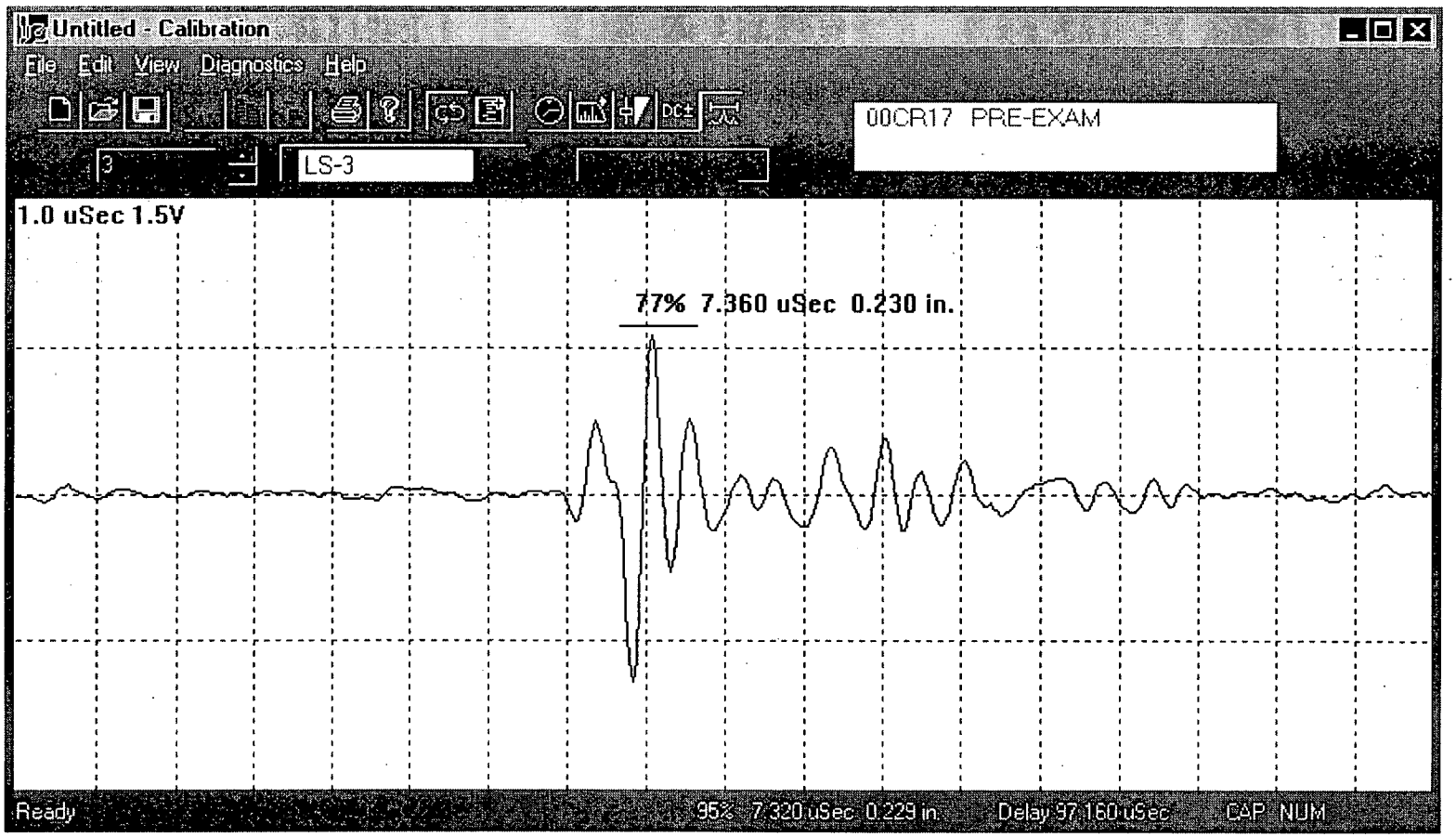

Untitled - Calibration
File Edit View Diagnostics Help
00C4YT POST-EXAM
N3
2.0 uSec 1.5V
83% 5.920 uSec 0.440 in.
Ready
98% 5.880 uSec 0.437 in.
Offset 143

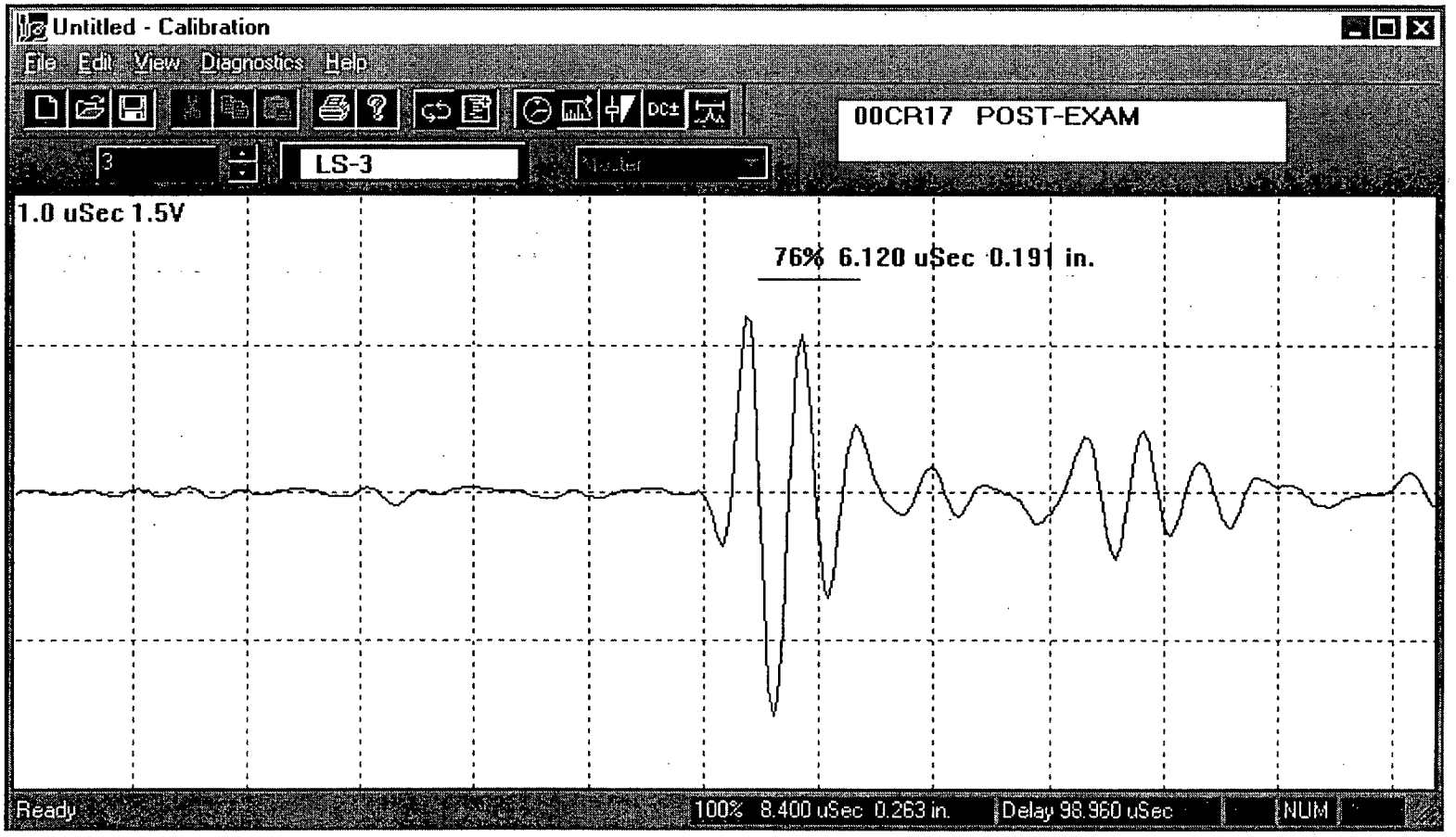

Untitled - Calibration
File Edit View Diagnostics Help
00CR1H PRE-EXAM
LS-1
1.0 uSec 1.5V
77% 7.000 uSec 0.309 in.
Ready
79% 6.960 uSec 0.308 in.
Delay 69.600 uSec
CAP NUM

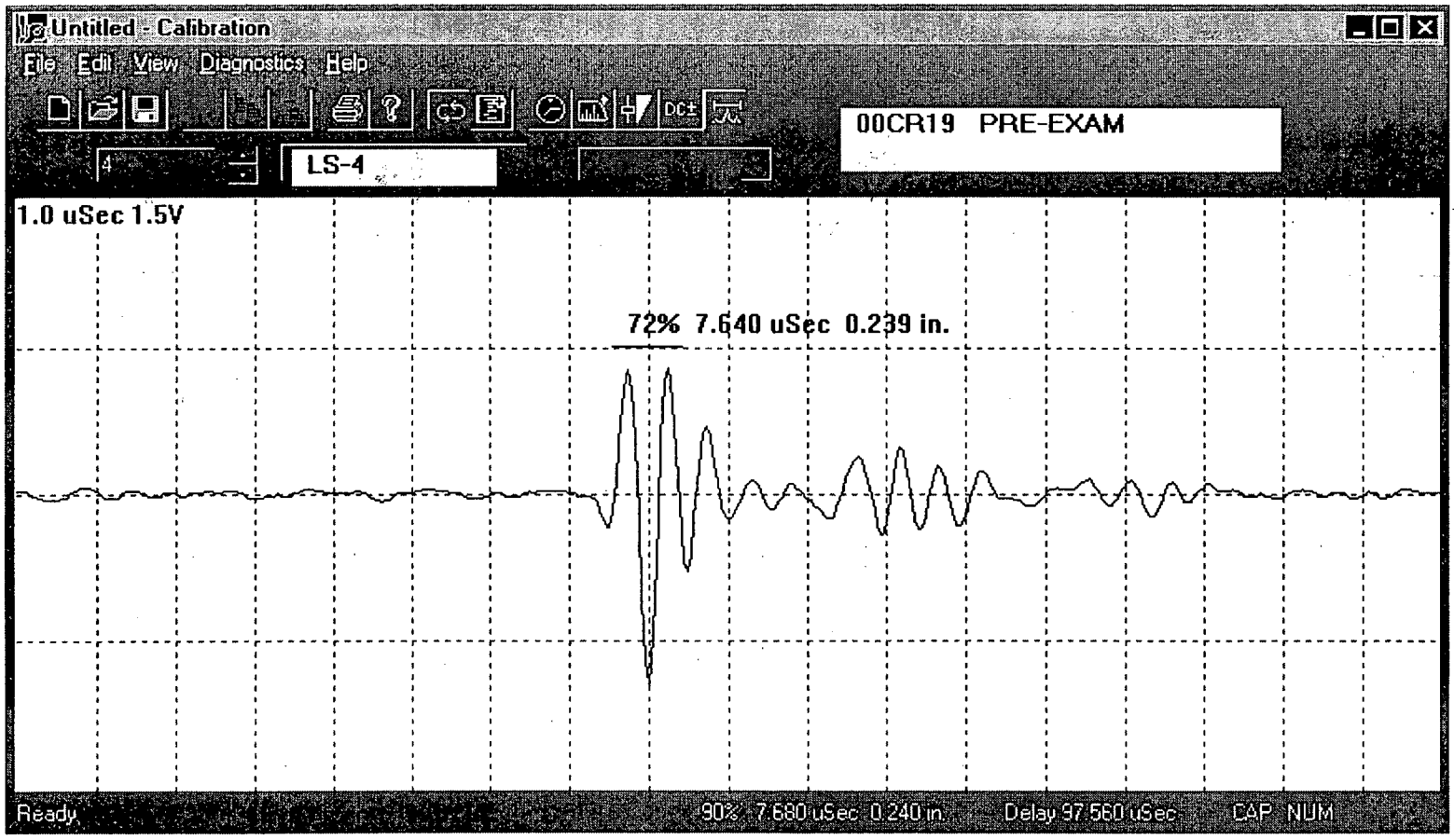

Untitled - Calibration
File Edit View Diagnostics Help
00CR1H POST-EXAM
LS-1
1.0 uSec 1.5V
72% 5.920 uSec 0.262 in.
Ready
82% 6.000 uSec 0.265 in.
Delay 70.960 uSec
NUM

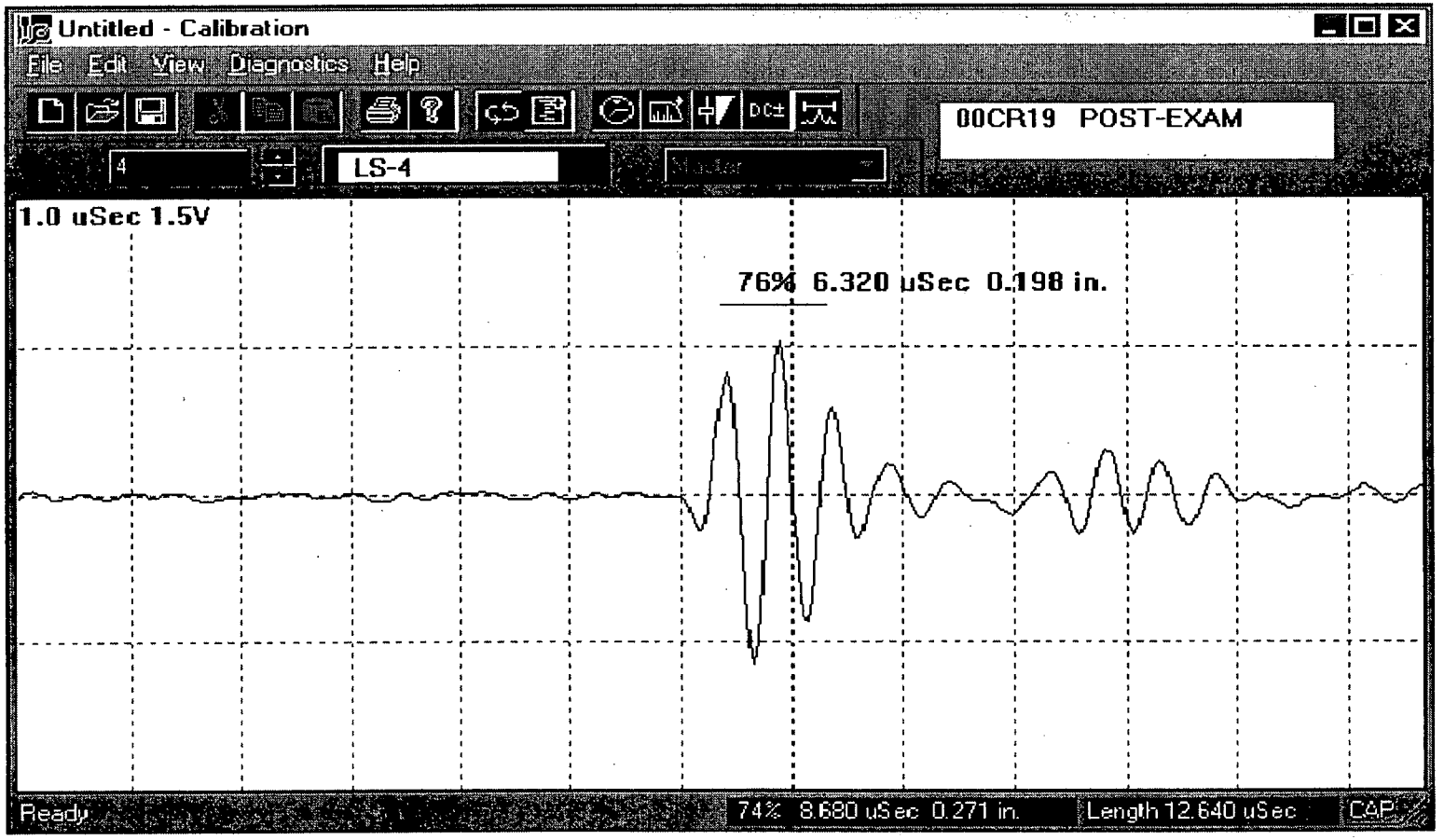

Untitled - Calibration
File Edit View Diagnostics Help
LS-2
00CR1D PRE-EXAM
1.0 uSec 1.5V
72% 7.120 uSec 0.315 in.
Ready
91% 7.120 uSec 0.315 in.
Delay 69.520 uSec
CAP NUM

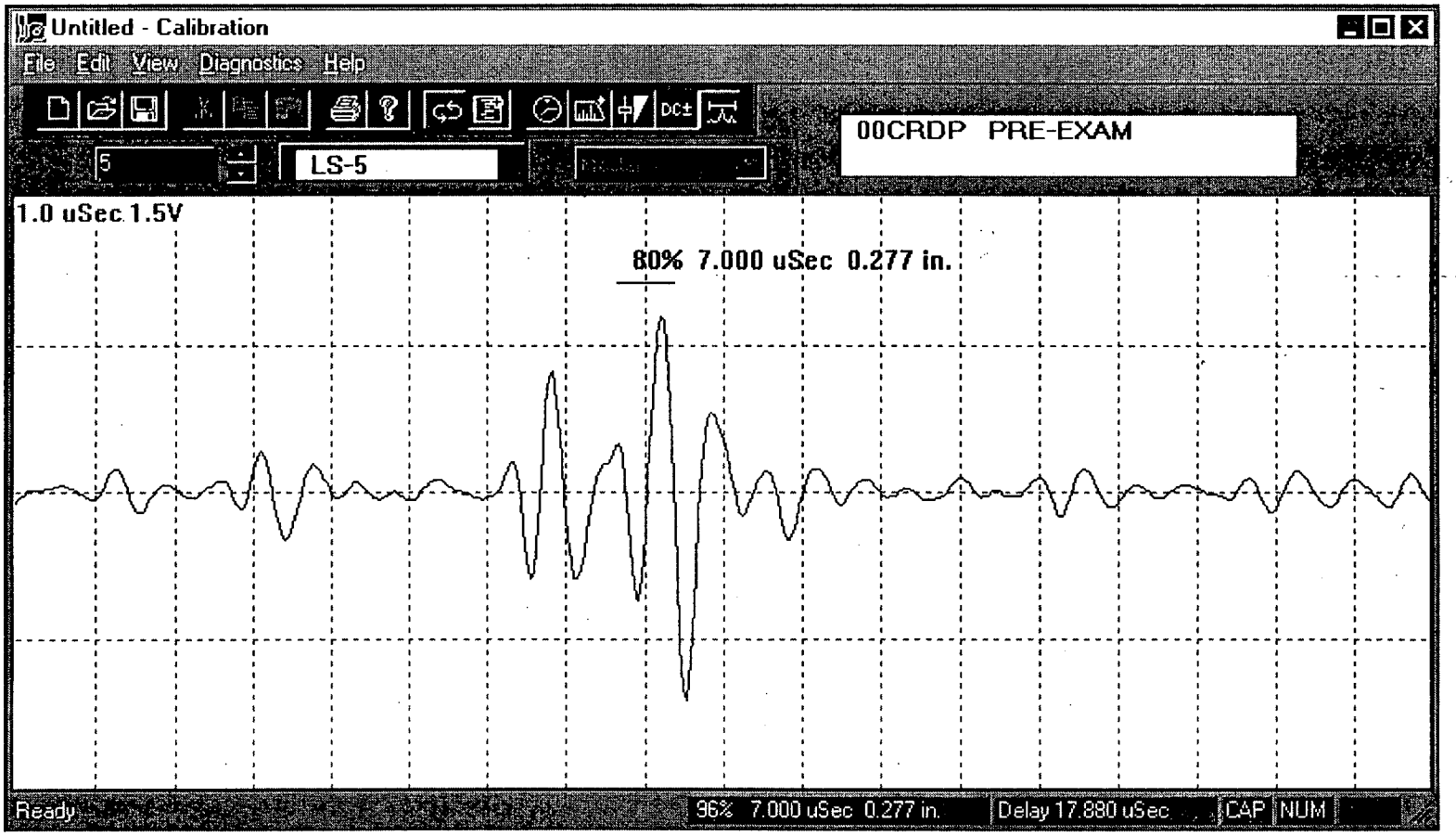

Untitled - Calibration
File Edit View Diagnostics Help
00CR1D POST-EXAM
2
LS-2
Marker
1.0 uSec 1.5V
74% 5.160 uSec 0.228 in.
Ready
32% 4.440 uSec 0.196 in.
Delay 70.720 uSec

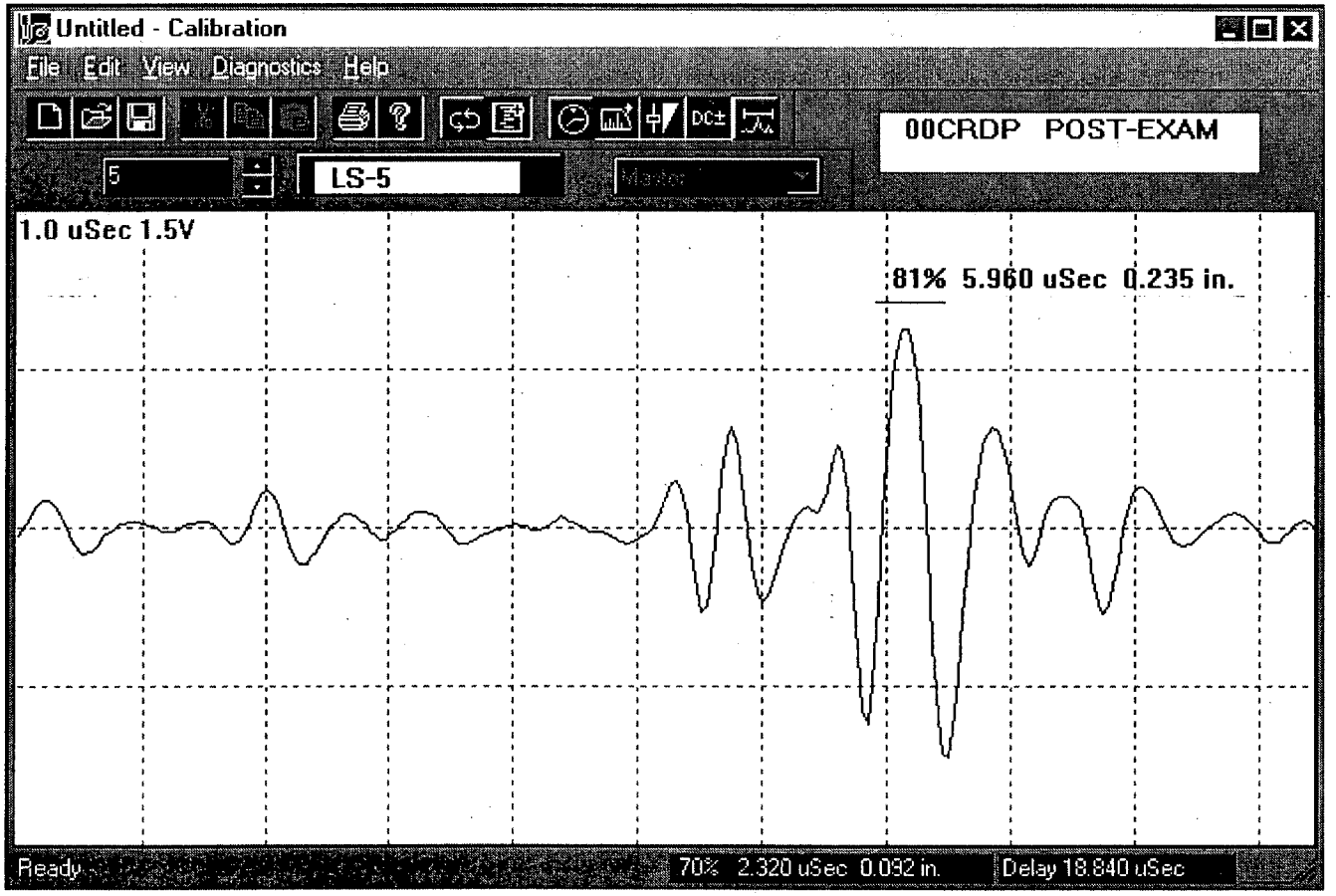

Untitled - Calibration
File Edit View Diagnostics Help
00CR17 PRE-EXAM
LS-3
1.0 uSec 1.5V
77% 7.360 uSec 0.230 in.
Ready
95% 7.320 uSec 0.229 in.
Delay 97.160 uSec
CAP NUM

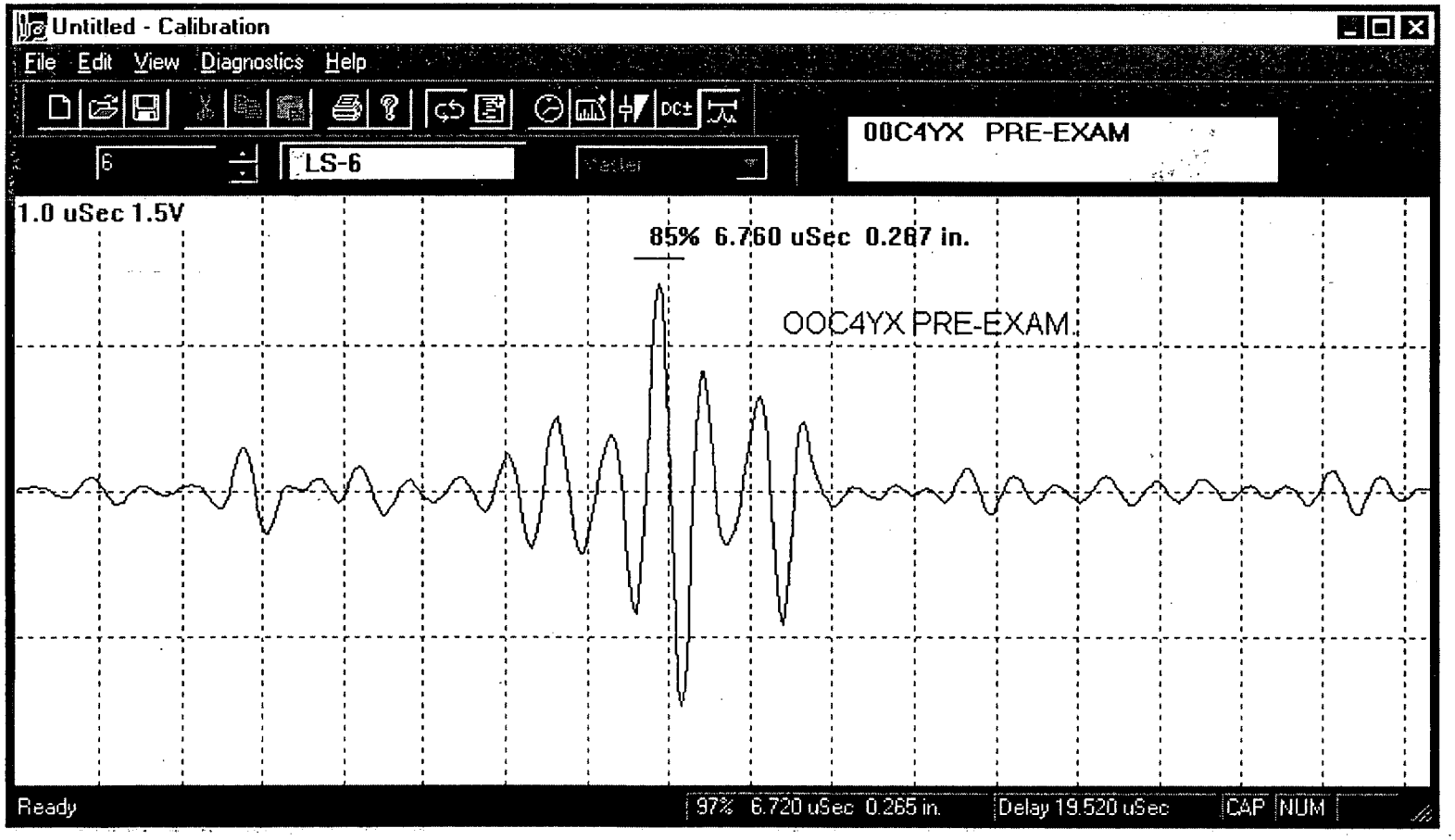

Untitled - Calibration
File Edit View Diagnostics Help
00CR17 POST-EXAM
LS-3
1.0 uSec 1.5V
76% 6.120 uSec 0.191 in.
Ready
100% 8.400 uSec 0.263 in.
Delay 98.960 uSec
NUM

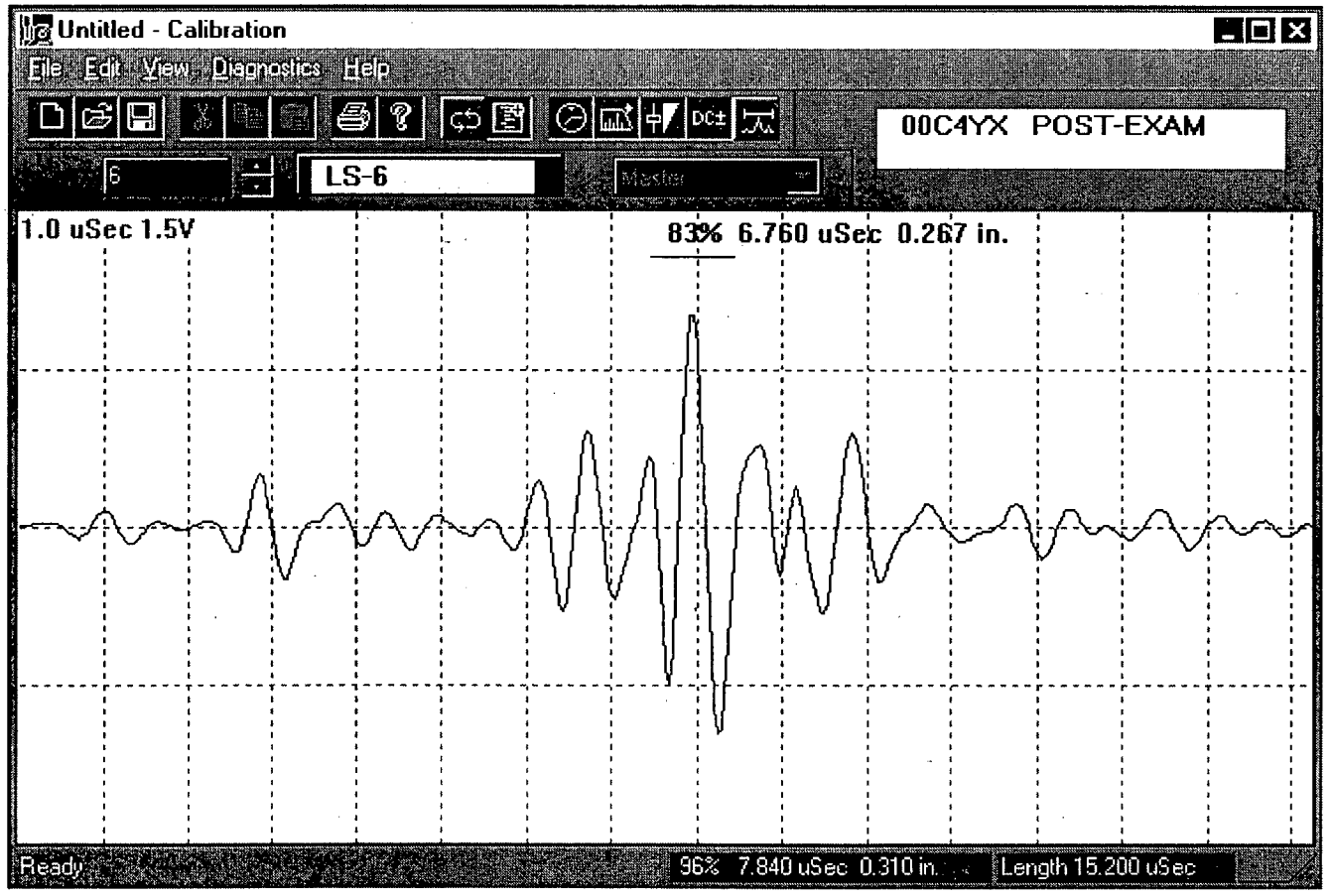

Untitled - Calibration
File Edit View Diagnostics Help
LS-4
00CR19 PRE-EXAM
1.0 uSec 1.5V
72% 7.640 uSec 0.239 in.
Ready
90% 7.680 uSec 0.240 in.
Delay 97.560 uSec
CAP NUM

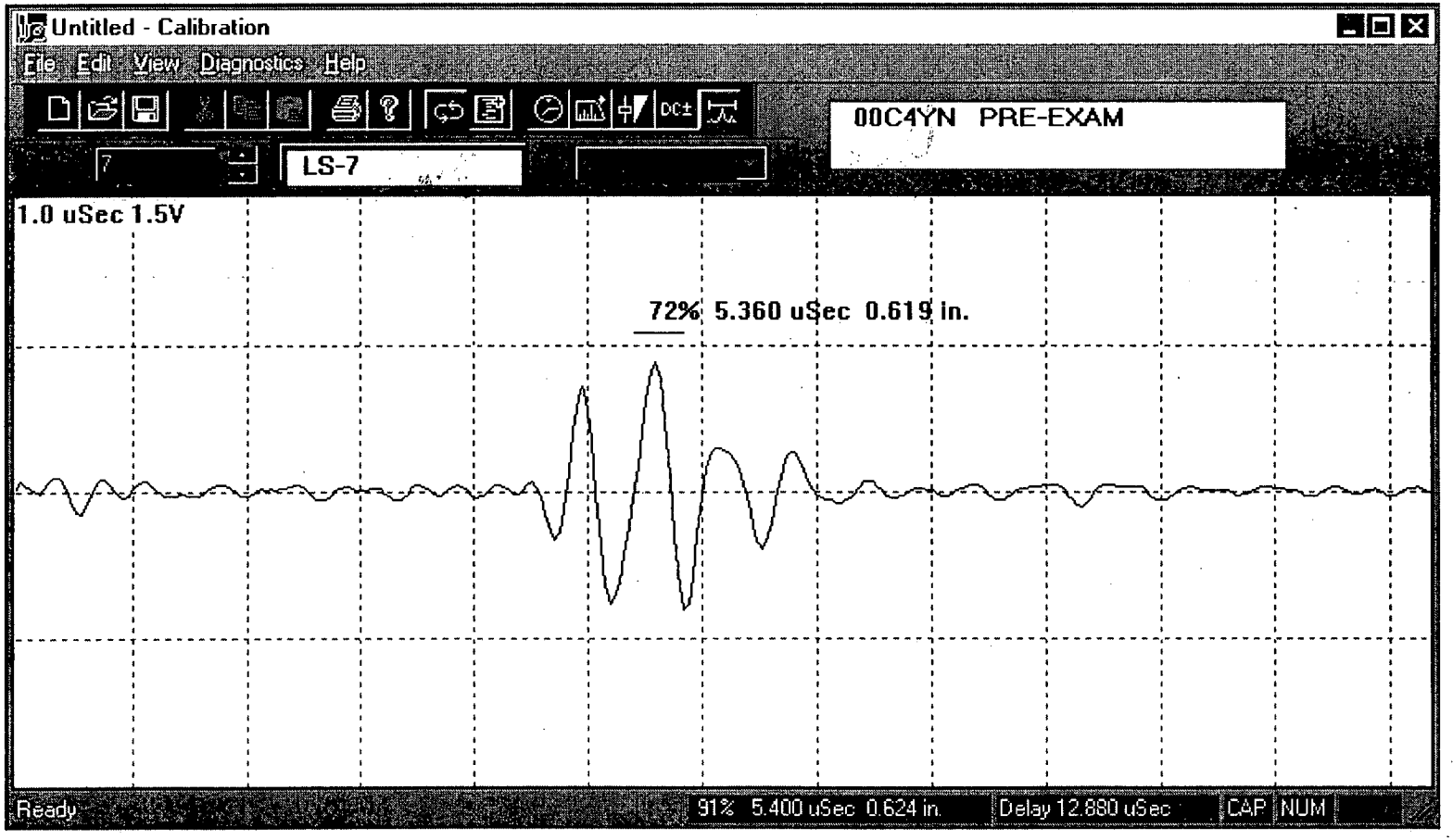

Untitled - Calibration
File Edit View Diagnostics Help
00CR19 POST-EXAM
4
LS-4
1.0 uSec 1.5V
76% 6.320 uSec 0.198 in.
Ready
74% 8.680 uSec 0.271 in.
Length 12.640 uSec
CAP

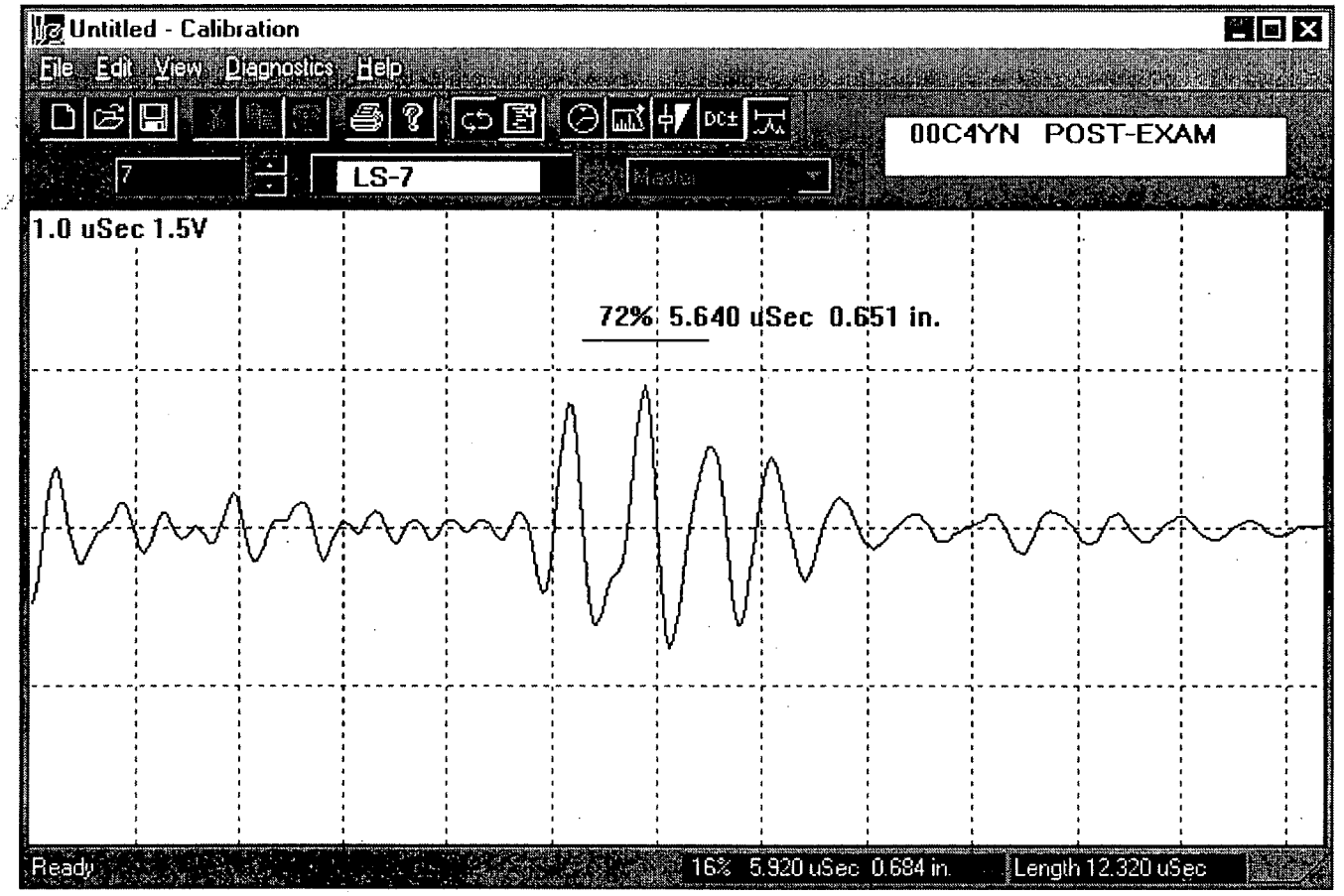

Untitled - Calibration
File Edit View Diagnostics Help
5
LS-5
00CRDP PRE-EXAM
1.0 uSec 1.5V
80% 7.000 uSec 0.277 in.
Ready
96% 7.000 uSec 0.277 in.
Delay 17.880 uSec
CAP
NUM


Untitled - Calibration
File Edit View Diagnostics Help
00CRDP POST-EXAM
5
LS-5
1.0 uSec 1.5V
81% 5.960 uSec 0.235 in.
Ready
70% 2.320 uSec 0.092 in.
Delay 18.840 uSec


Untitled - Calibration
File Edit View Diagnostics Help
LS-6
00C4YX PRE-EXAM
1.0 uSec 1.5V
85% 6.760 uSec 0.267 in.
OOC4YX PRE-EXAM
Ready
97% 6.720 uSec 0.265 in.
Delay 19.520 uSec
CAP NUM


Untitled - Calibration
File Edit View Diagnostics Help
00C4YX POST-EXAM
6
LS-6
Master
1.0 uSec 1.5V
83% 6.760 uSec 0.267 in.
Ready
96% 7.840 uSec 0.310 in.
Length 15.200 uSec


Untitled - Calibration
File Edit View Diagnostics Help
00C4YN PRE-EXAM
LS-7
1.0 uSec 1.5V
72% 5.360 uSec 0.619 in.
Ready
91% 5.400 uSec 0.624 in.
Delay 12.880 uSec
CAP NUM


Untitled - Calibration
File Edit View Diagnostics Help
00C4YN POST-EXAM
7
LS-7
1.0 uSec 1.5V
72% 5.640 uSec 0.651 in.
Ready
16% 5.920 uSec 0.684 in.
Length 12.320 uSec

WesDyne International

REACTOR VESSEL WATER TEMPERATURE LOG SHEET

Date	Time	Temperature	Information Source	Signature
9-22-99	1700	100° F	Control Room	John W Bell
9-22-99	1910	100° F	Control Room	John W Bell
9-23-99	0646	100° F	Control Room	John W Bell
9-23-99	1830	99° F	Control Room	S A Soto
9-24-99	0600	100° F	Control Room	John W Bell
9-24-99	1000	100° F	Control Room	John W Bell
9-24-99	1930	100° F	Control Room	S A Soto
9-25-99	0635	100° F	Control Room	John W Bell
9-25-99	1800	100° F	Control Room	S A Soto
9-26-99	0600	99° F	Control Room	John W Bell
9-26-99	1730	100° F	Control Room	John W Bell
9-27-99	0500	100° F	Control Room	S A Soto
9-27-99	1630	99° F	Control Room	John R. Jellerson

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W1 DESCRIPTION Flange to Upper Shell Circ.

LIMITATIONS NO [ ] YES [X] Taper Transition

RESULTS

NI	NRI	RI
[ ]	[ ]	[X]

NO. OF INDICATIONS 1
STATUS Acceptable

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[X] ASSESSMENT SHEET
[X] ACQUISITION LOG	[X] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW
PERP. SCANS UP / DN

ITEM / AREA Flange to Upper Shell Circ.

WELD NO. 1

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°		MANUAL 0°, 6°-, 6°+ 12°, 16°	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	85	100	88	100	85				
DOWN (OUT) (1)	50	52	40	40	100	75			100	92
BORE AXIAL										

(1) Down directed angle beams have low coverage due to taper. Manual Examination can credit.

ANALYST

WesDyne
International

INDICATION ASSESSMENT

PLANT: INDIAN POINT UNIT: 3

ANALYST: [signature] LEVEL: III DATE: 9-27-99

FILE / BUFFER	DISK	WELD NO.	INDICATION NO.	BEAM ANGLE	BEAM DIRECTION	CLASSIFICATION VOLUMETRIC / PLANAR	APPLICABLE "t"	FLAW DEPTH MIN / MAX	LENGTH (L)	SURF. / SUB.	S. DIM.	Y VALUE (S / a)	2a DIM. / a DIM.	a / L VALUE (0.50 MAX)	a / t%	ALLOWABLE a / t%	PEAK MAX AMP (% DAC)	PEAK X (SWP#)	PEAK YB	PEAK ZB	NOTES
W1-PAR								2.51					0.6				55				
90-180a		W1	1	45S	CCW	P	11.50	3.11	0.5	SUB	2.7	1	0.3	0.5	2.6	6.5	69	26.65	142.1	2.69	1

NOTES

(1) Code Allowable per ASME 1983, IWB 3510-1

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W1-PRP-180-270	W1	180	22.29		MFF	II	9-27-99	
W1-PAR-175-185	W1	27.86	175		MFF	II	9-27-99	
W1-PAR-180-270B	W1	23.16	190		MFF	II	9-27-99	
W1-PAR-180-270C	W1	27.86	215		MFF	II	9-27-99	
W1-PAR-180-270D	W1	23.16	225		MFF	II	9-27-99	
W1-PRP-270-360	W1	270	22.29		MFF	II	9-27-99	
W1-PAR-270-318	W1	23.16	270		LCH	II	9-27-99	
W1-PAR-318-324	W1	23.16	318		LCH	II	9-27-99	
W1-PAR-270-360AAA	W1	23.16	324		LCH	II	9-27-99	
W1-PAR-270-360AAAA	W1	27.86	354		LCH	II	9-27-99	
W1-PAR-0-90AA	W1	23.16	8		LCH	II	9-27-99	
W1-PAR-0-90AAA	W1	23.16	44		LCH	II	9-27-99	
W1-PAR-0-90AAAA	W1	27.86	38		LCH	II	9-27-99	
W1-PRP-0-90	W1	0	23.45		LCH	II	9-27-99	
W1-PAR-90-180A	W1	27.86	138		LCH	II	9-27-99	
W1-PAR-90-180AA	W1	23.16	144		LCH	II	9-27-99	
W1-PAR-90-180AAA	W1	27.86	173		LCH	II	9-27-99	
W1-PRP-90-180	W1	90	22.45		FSH	II	9-27-99	
W1-PAR-90-180AAAA	W1	23.16	188		FSH	II	9-27-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W1

WELD TYPE: FLANGE TO UPPER SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
W1-PAR-175-185	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99
	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1-PAR-180-270 B	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99
	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1-PAR-180-270 C	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W1

WELD TYPE: FLANGE TO UPPER SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W1-PAR-180-270 C	06	70L CW	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99
W1-PAR-180-270 D	01	45S CCW	X				YZ 9-27-99
	02	45S CW	X				YZ 9-27-99
	03	60S CCW	X				YZ 9-27-99
	04	60S CW	X				YZ 9-27-99
	05	70L CCW	X				YZ 9-27-99
	06	70L CW	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99
W1-PAR-270-318	01	45S CCW	X				YZ 9-27-99
	02	45S CW	X				YZ 9-27-99
	03	60S CCW	X				YZ 9-27-99
	04	60S CW	X				YZ 9-27-99
	05	70L CCW	X				YZ 9-27-99
	06	70L CW	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W1

WELD TYPE: FLANGE TO UPPER SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
W1-PAR-270-360 aaa	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99
	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1-PAR-318-324	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99
	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1PAR-270-360aaaa	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99

SIGNATURE: Yingda Z

LEVEL: III

DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W1

WELD TYPE: FLANGE TO UPPER SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
W1PAR-270-360aaaa	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1-PAR-0-90aa	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99
	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1-PAR-0-90aaa	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99
	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99

SIGNATURE: Yingda Z

LEVEL: III

DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W1

WELD TYPE: FLANGE TO UPPER SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
W1-PAR-0-90aaaa	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99
	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1-PRP-180-270	01	45S DN	X				YZ	9-27-99
	02	45S UP	X				YZ	9-27-99
	03	60S DN	X				YZ	9-27-99
	04	60S UP	X				YZ	9-27-99
	05	70L DN	X				YZ	9-27-99
	06	70L UP	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1-PRP-270-360	01	45S DN	X				YZ	9-27-99
	02	45S UP	X				YZ	9-27-99
	03	60S DN	X				YZ	9-27-99
	04	60S UP	X				YZ	9-27-99
	05	70L DN	X				YZ	9-27-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W1

WELD TYPE: FLANGE TO UPPER SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
W1-PRP-270-360	06	70L UP	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1-PRP-0-90	01	45S DN	X				YZ	9-27-99
	02	45S UP	X				YZ	9-27-99
	03	60S DN	X				YZ	9-27-99
	04	60S UP	X				YZ	9-27-99
	05	70L DN	X				YZ	9-27-99
	06	70L UP	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1-PRP-90-180	01	45S DN	X				YZ	9-27-99
	02	45S UP	X				YZ	9-27-99
	03	60S DN	X				YZ	9-27-99
	04	60S UP	X				YZ	9-27-99
	05	70L DN	X				YZ	9-27-99
	06	70L UP	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99

SIGNATURE: Yongsha Zhang LEVEL: III DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W1

WELD TYPE: FLANGE TO UPPER SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
W1-PAR-90-180a	01	45S CCW			X		YZ	9-27-99
	02	45S CW			X		YZ	9-27-99
	03	60S CCW			X		YZ	9-27-99
	04	60S CW			X		YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99
	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1-PAR-90-180aa	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99
	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1PAR-90-180aaa	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99

SIGNATURE: Yingzhe Zhu LEVEL: III DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W1

WELD TYPE: FLANGE TO UPPER SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
W1PAR-90-180aaa	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W1PAR-90-180aaaa	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99
	06	70L CW	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/27/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PERPENDICULAR SCAN
Scan Data File Name = W1-PRP-180-270

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	180.00	22.45
TOP RIGHT	:	270.00	22.45
BOTTOM LEFT	:	180.00	50.00
BOTTOM RIGHT	:	270.00	50.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	180.00	22.45
TOP RIGHT	:	270.00	22.45
BOTTOM LEFT	:	180.00	50.00
BOTTOM RIGHT	:	270.00	50.00

Increment Size (in) = 0.50
Number of Indexes Specified = 270
Number of Indexes Completed = 270
Scan Area - Original Techniques (sq in) = 3759.8
Scan Area - This Scan (sq in) = 3719.3
Scan Area - Completed (sq in) = 3719.3

	Time	Date
Scan Started	02:58:59	09/27/99
Scan Completed	03:43:28	09/27/99

Robot Operator Signature _____ DATE 9-27-99

UT Operator Signature _____ DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W1-PAR-180-270-A

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	185.00
TOP RIGHT	:	23.16	270.00
BOTTOM LEFT	:	36.00	185.00
BOTTOM RIGHT	:	36.00	270.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	27.86	175.00
:	36.00	175.00
:	27.86	185.00
:	36.00	185.00

Increment Size (in) = 0.50
Number of Indexes Specified = 18
Number of Indexes Completed = 18
Scan Area - Original Techniques (sq in) = 1710.8
Scan Area - This Scan (sq in) = 134.2
Scan Area - Completed (sq in) = 134.2

	Time	Date
Scan Started	04:11:53	09/27/99
Scan Completed	04:13:28	09/27/99

Robot Operator Signature _____ DATE 9-27-99

UT Operator Signature _____ DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID =
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W1-PAR-180-270-Ba

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	190.00
TOP RIGHT	:	23.16	215.00
BOTTOM LEFT	:	36.00	190.00
BOTTOM RIGHT	:	36.00	215.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	23.16	190.00
:	36.00	215.00
:	23.16	215.00
:	36.00	190.00

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 503.2
Scan Area - This Scan (sq in) = 503.2
Scan Area - Completed (sq in) = 503.2

	Time	Date
Scan Started	04:28:24	09/27/99
Scan Completed	04:33:09	09/27/99

Robot Operator Signature _____ DATE 9-27-99

UT Operator Signature _____ DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID =
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W1-PAR-180-270-C

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	190.00
TOP RIGHT	:	23.16	215.00
BOTTOM LEFT	:	36.00	190.00
BOTTOM RIGHT	:	36.00	215.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	27.86	215.00
:	36.00	215.00
:	27.86	225.00
:	36.00	225.00

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 18
Scan Area - Original Techniques (sq in) = 503.2
Scan Area - This Scan (sq in) = 134.2
Scan Area - Completed (sq in) = 134.2

	Time	Date
Scan Started	05:00:01	09/27/99
Scan Completed	05:01:34	09/27/99

Robot Operator Signature _____ DATE 9-27-99

UT Operator Signature _____ DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID =
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W1-PAR-180-270-D

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	190.00
TOP RIGHT	:	23.16	215.00
BOTTOM LEFT	:	36.00	190.00
BOTTOM RIGHT	:	36.00	215.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	23.16	225.00
:	36.00	270.00
:	23.16	270.00
:	36.00	225.00

Increment Size (in)	=	0.50
Number of Indexes Specified	=	27
Number of Indexes Completed	=	27
Scan Area - Original Techniques (sq in)	=	503.2
Scan Area - This Scan (sq in)	=	905.7
Scan Area - Completed (sq in)	=	905.7

	Time	Date
Scan Started	05:08:53	09/27/99
Scan Completed	05:15:01	09/27/99

Robot Operator Signature _____ DATE 9-27-99

UT Operator Signature _____ DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PERPENDICULAR SCAN
Scan Data File Name = W1-PRP-270-360

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	270.00	22.45
TOP RIGHT	:	360.00	22.45
BOTTOM LEFT	:	270.00	50.00
BOTTOM RIGHT	:	360.00	50.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	270.00	22.45
TOP RIGHT	:	360.00	22.45
BOTTOM LEFT	:	270.00	50.00
BOTTOM RIGHT	:	360.00	50.00

Increment Size (in) = 0.50
Number of Indexes Specified = 270
Number of Indexes Completed = 270
Scan Area - Original Techniques (sq in) = 3759.8
Scan Area - This Scan (sq in) = 3719.3
Scan Area - Completed (sq in) = 3719.3

	Time	Date
Scan Started	05:23:27	09/27/99
Scan Completed	06:07:52	09/27/99

Robot Operator Signature Frank R. Keefe DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN

Scan Data File Name = W1-PAR-270-360a

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	270.00
TOP RIGHT	:	23.16	360.00
BOTTOM LEFT	:	36.00	270.00
BOTTOM RIGHT	:	36.00	360.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	27.86	318.00
:	36.00	318.00
:	27.86	324.00
:	36.00	324.00

Increment Size (in) = 0.50
Number of Indexes Specified = 18
Number of Indexes Completed = 18
Scan Area - Original Techniques (sq in) = 1804.8
Scan Area - This Scan (sq in) = 80.5
Scan Area - Completed (sq in) = 80.5

	Time	Date
Scan Started	07:21:16	09/27/99
Scan Completed	07:22:33	09/27/99

Robot Operator Signature Frank R. Keefer DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN

Scan Data File Name = W1-PAR-270-360aaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	270.00
TOP RIGHT	:	23.16	360.00
BOTTOM LEFT	:	36.00	270.00
BOTTOM RIGHT	:	36.00	360.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	23.16	324.00
:	36.00	354.00
:	23.16	354.00
:	36.00	324.00

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 1804.8
Scan Area - This Scan (sq in) = 603.8
Scan Area - Completed (sq in) = 603.8

	Time	Date
Scan Started	07:31:04	09/27/99
Scan Completed	07:35:43	09/27/99

Robot Operator Signature Frank R. Kefer DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN

Scan Data File Name = W1-PAR-270-360aaaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	270.00
TOP RIGHT	:	23.16	360.00
BOTTOM LEFT	:	36.00	270.00
BOTTOM RIGHT	:	36.00	360.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	27.86	354.00
:	36.00	354.00
:	27.86	368.00
:	36.00	368.00

Increment Size (in) = 0.50
Number of Indexes Specified = 18
Number of Indexes Completed = 18
Scan Area - Original Techniques (sq in) = 1804.8
Scan Area - This Scan (sq in) = 187.9
Scan Area - Completed (sq in) = 187.9

	Time	Date
Scan Started	07:49:46	09/27/99
Scan Completed	07:51:36	09/27/99

Robot Operator Signature Frank R. Keefer DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN

Scan Data File Name = W1-PAR-0-90aa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	0.00
TOP RIGHT	:	23.16	90.00
BOTTOM LEFT	:	36.00	0.00
BOTTOM RIGHT	:	36.00	90.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	23.16	8.00
:	36.00	38.00
:	23.16	38.00
:	36.00	8.00

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 1804.8
Scan Area - This Scan (sq in) = 603.8
Scan Area - Completed (sq in) = 603.8

	Time	Date
Scan Started	08:36:10	09/27/99
Scan Completed	08:40:48	09/27/99

Robot Operator Signature Frank R. Keefer DATE 9-27-99

UT Operator Signature Harry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN

Scan Data File Name = W1-PAR-0-90aaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	0.00
TOP RIGHT	:	23.16	90.00
BOTTOM LEFT	:	36.00	0.00
BOTTOM RIGHT	:	36.00	90.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	23.16	44.00
:	36.00	138.00
:	23.16	138.00
:	36.00	44.00

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 1804.8
Scan Area - This Scan (sq in) = 1891.9
Scan Area - Completed (sq in) = 1891.9

	Time	Date
Scan Started	08:46:39	09/27/99
Scan Completed	08:58:03	09/27/99

Robot Operator Signature Frank R. Keyes DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN

Scan Data File Name = W1-PAR-0-90aaaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	0.00
TOP RIGHT	:	23.16	90.00
BOTTOM LEFT	:	36.00	0.00
BOTTOM RIGHT	:	36.00	90.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	27.86	38.00
:	36.00	38.00
:	27.86	44.00
:	36.00	44.00

Increment Size (in)	=	0.50
Number of Indexes Specified	=	18
Number of Indexes Completed	=	18
Scan Area - Original Techniques (sq in)	=	1804.8
Scan Area - This Scan (sq in)	=	80.5
Scan Area - Completed (sq in)	=	80.5

	Time	Date
Scan Started	09:03:51	09/27/99
Scan Completed	09:05:10	09/27/99

Robot Operator Signature Frank R. Kufer DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PERPENDICULAR SCAN

Scan Data File Name = W1-PRP-0-90

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	0.00	22.45
TOP RIGHT	:	90.00	22.45
BOTTOM LEFT	:	0.00	50.00
BOTTOM RIGHT	:	90.00	50.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	22.45
:	90.00	22.45
:	0.00	50.00
:	90.00	50.00

Increment Size (in) = 0.50
Number of Indexes Specified = 270
Number of Indexes Completed = 270
Scan Area - Original Techniques (sq in) = 3759.8
Scan Area - This Scan (sq in) = 3719.3
Scan Area - Completed (sq in) = 3719.3

	Time	Date
Scan Started	09:14:49	09/27/99
Scan Completed	10:13:07	09/27/99

Robot Operator Signature Frank R. Keefer DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN

Scan Data File Name = W1-PAR-90-180a

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	90.00
TOP RIGHT	:	23.16	180.00
BOTTOM LEFT	:	36.00	90.00
BOTTOM RIGHT	:	36.00	180.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	27.86	138.00
:	36.00	138.00
:	27.86	144.00
:	36.00	144.00

Increment Size (in) = 0.50
Number of Indexes Specified = 18
Number of Indexes Completed = 18
Scan Area - Original Techniques (sq in) = 1804.8
Scan Area - This Scan (sq in) = 80.5
Scan Area - Completed (sq in) = 80.5

	Time	Date
Scan Started	10:35:14	09/27/99
Scan Completed	10:36:33	09/27/99

Robot Operator Signature Frank R. Kuhn DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN

Scan Data File Name = W1-PAR-90-180aa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	90.00
TOP RIGHT	:	23.16	180.00
BOTTOM LEFT	:	36.00	90.00
BOTTOM RIGHT	:	36.00	180.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	23.16	144.00
:	36.00	173.00
:	23.16	173.00
:	36.00	144.00

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 1804.8
Scan Area - This Scan (sq in) = 583.7
Scan Area - Completed (sq in) = 583.7

	Time	Date
Scan Started	10:52:41	09/27/99
Scan Completed	10:57:15	09/27/99

Robot Operator Signature Frank R. Kuhr DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN

Scan Data File Name = W1-PAR-90-180aaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	90.00
TOP RIGHT	:	23.16	180.00
BOTTOM LEFT	:	36.00	90.00
BOTTOM RIGHT	:	36.00	180.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	27.86	173.00
:	36.00	173.00
:	27.86	188.00
:	36.00	188.00

Increment Size (in) = 0.50
Number of Indexes Specified = 18
Number of Indexes Completed = 18
Scan Area - Original Techniques (sq in) = 1804.8
Scan Area - This Scan (sq in) = 201.3
Scan Area - Completed (sq in) = 201.3

	Time	Date
Scan Started	11:04:38	09/27/99
Scan Completed	11:06:35	09/27/99

Robot Operator Signature Frank R. Keefer DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PERPENDICULAR SCAN

Scan Data File Name = W1-PRP-90-180

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	90.00	22.45
TOP RIGHT	:	180.00	22.45
BOTTOM LEFT	:	90.00	50.00
BOTTOM RIGHT	:	180.00	50.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	90.00	22.45
:	180.00	22.45
:	90.00	50.00
:	180.00	50.00

Increment Size (in) = 0.50
Number of Indexes Specified = 270
Number of Indexes Completed = 270
Scan Area - Original Techniques (sq in) = 3759.8
Scan Area - This Scan (sq in) = 3719.3
Scan Area - Completed (sq in) = 3719.3

	Time	Date
Scan Started	11:17:43	09/27/99
Scan Completed	12:11:22	09/27/99

Robot Operator Signature Frank R. Keefer DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W1
Weld and Scan Type = FLANGE CIRCUMFERENTIAL PARALLEL SCAN

Scan Data File Name = W1-PAR-90-180aaaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	23.16	90.00
TOP RIGHT	:	23.16	180.00
BOTTOM LEFT	:	36.00	90.00
BOTTOM RIGHT	:	36.00	180.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	23.16	188.00
:	36.00	195.00
:	23.16	195.00
:	36.00	188.00

Increment Size (in)	=	0.50
Number of Indexes Specified	=	27
Number of Indexes Completed	=	27
Scan Area - Original Techniques (sq in)	=	1804.8
Scan Area - This Scan (sq in)	=	140.9
Scan Area - Completed (sq in)	=	140.9

	Time	Date
Scan Started	12:23:49	09/27/99
Scan Completed	12:26:01	09/27/99

Robot Operator Signature Frank R. Kufer DATE 9-27-99

UT Operator Signature Larry C. Hines DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W2 DESCRIPTION Upper to Intermediate Shell Circ.

LIMITATIONS NO [ ] YES [X] Nozzle protrusions

RESULTS

NI	NRI	RI
[ ]	[X]	[ ]

NO. OF INDICATIONS 0
STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW
PERP. SCANS UP / DN

ITEM / AREA Upper to Intermediate Shell Circ.

WELD NO. 2

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	100	100	100	100	100				
DOWN (OUT)	100	(1)	94.14	(1)	100	100				
BORE AXIAL										

(1) Has 2 dir. Scan satisfied by UP Direction 45 / 60.

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W2-PRP-180-194	W2	180	107.84		MF	II	9-26-99	
W2-PAR-90-180	W2	119.35	90		MF	II	9-25-99	
W2-PRP-150-177	W2	149.9	115.05		MF	II	9-26-99	
W2-PRP-177-191	W2	177	107.8		MF	II	9-26-99	
W2-PRP-194-210-AAA	W2	193.9	115.96		MF	II	9-26-99	
W2-PRP-210-329-AA	W2	221	107.84		MF	II	9-26-99	
W2-PRP-210-329-AAA	W2	284	197.84		MF	II	9-26-99	
W2-PAR-180-270	W2	119.35	180		MF	II	9-26-99	
W2-PAR-270-360	W2	119.35	270		FH	II	9-26-99	
W2-PRP-329-357	W2	327.9	116.25		FH	II	9-26-99	
W2-PRP-356-373AAAA	W2	357	108		FH	II	9-26-99	
W2-PRP-13-40	W2	13.9	115.09		FH	II	9-26-99	
W2-PRP-40-150	W2	40	108		FH	II	9-26-99	
W2-PRP-148-150	W2	148.2	112		FH	II	9-26-99	
W2-PAR-0-90	W2	0	119.51		FH	II	9-26-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W2

WELD TYPE: UPPER to INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W2-PRP-180-194	01	45 DN	X				SAS 9-26-99
	02	45 UP	X				SAS 9-26-99
	03	60 DN	X				SAS 9-26-99
	04	60 UP	X				SAS 9-26-99
	05	70 DN	X				SAS 9-26-99
	06	70 UP	X				SAS 9-26-99
	07	0	X				SAS 9-26-99
W2-PAR-90-180	01	45 CCW	X				SAS 9-26-99
	02	45 CW	X				SAS 9-26-99
	03	60 CCW	X				SAS 9-26-99
	04	60 CW	X				SAS 9-26-99
	05	70 CCW	X				SAS 9-26-99
	06	70 CW	X				SAS 9-26-99
	07	0	X				SAS 9-26-99

SIGNATURE: [illegible] LEVEL: III DATE: 9-26-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W2

WELD TYPE: UPPER to INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W2-PRP-150-177	01	45 DN	X				DK 9-26-99
	02	45 UP	X				DK 9-26-99
	03	60 DN	X				DK 9-26-99
	04	60 UP	X				DK 9-26-99
	05	70 DN	X				DK 9-26-99
	06	70 UP	X				DK 9-26-99
	07	0	X				DK 9-26-99
W2-PRP-177-191	01	45 DN	X				DK 9-26-99
	02	45 UP	X				DK 9-26-99
	03	60 DN	X				DK 9-26-99
	04	60 UP	X				DK 9-26-99
	05	70 DN	X				DK 9-26-99
	06	70 UP	X				DK 9-26-99
	07	0	X				DK 9-26-99

SIGNATURE _____ LEVEL III DATE 9-26-95

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W2

WELD TYPE: UPPER to INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W2-PRP-194-210-AAA	01	45 DN	X				DK 9-26-99
	02	45 UP	X				DK 9-26-99
	03	60 DN	X				DK 9-26-99
	04	60 UP	X				DK 9-26-99
	05	70 DN	X				DK 9-26-99
	06	70 UP	X				DK 9-26-99
	07	0	X				DK 9-26-99
W2-PRP-210-329-AAA	01	45 DN	X				DK 9-26-99
	02	45 UP	X				DK 9-26-99
	03	60 DN	X				DK 9-26-99
	04	60 UP	X				DK 9-26-99
	05	70 DN	X				DK 9-26-99
	06	70 UP	X				DK 9-26-99
	07	0	X				DK 9-26-99

SIGNATURE _____ LEVEL III DATE 9-26-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W2

WELD TYPE: UPPER to INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
W2-PAR-270-360	01	45 CCW	X				DK	9-26-99
	02	45 CW	X				DK	9-26-99
	03	60 CCW	X				DK	9-26-99
	04	60 CW	X				DK	9-26-99
	05	70 CCW	X				DK	9-26-99
	06	70 CW	X				DK	9-26-99
	07	0	X				DK	9-26-99
W2-PRP-329-357	01	45 DN	X				DK	9-26-99
	02	45 UP	X				DK	9-26-99
	03	60 DN	X				DK	9-26-99
	04	60 UP	X				DK	9-26-99
	05	70 DN	X				DK	9-26-99
	06	70 UP	X				DK	9-26-99
	07	0	X				DK	9-26-99

SIGNATURE _____ LEVEL III DATE 9-26-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W2

WELD TYPE: UPPER to INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W2-PRP-356-373AAAAA	01	45 DN	X				DK 9-26-99
	02	45 UP	X				DK 9-26-99
	03	60 DN	X				DK 9-26-99
	04	60 UP	X				DK 9-26-99
	05	70 DN	X				DK 9-26-99
	06	70 UP	X				DK 9-26-99
	07	0	X				DK 9-26-99
W2-PRP-13-40	01	45 DN	X				DK 9-26-99
	02	45 UP	X				DK 9-26-99
	03	60 DN	X				DK 9-26-99
	04	60 UP	X				DK 9-26-99
	05	70 DN	X				DK 9-26-99
	06	70 UP	X				DK 9-26-99
	07	0	X				DK 9-26-99

SIGNATURE: D Kay

LEVEL: III

DATE: 9-26-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W2

WELD TYPE: UPPER to INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W2-PRP-40-150	01	45 DN	X				DK 9-26-99
	02	45 UP	X				DK 9-26-99
	03	60 DN	X				DK 9-26-99
	04	60 UP	X				DK 9-26-99
	05	70 DN	X				DK 9-26-99
	06	70 UP	X				DK 9-26-99
	07	0	X				DK 9-26-99
W2-PRP-148-150	01	45 DN	X				DK 9-26-99
	02	45 UP	X				DK 9-26-99
	03	60 DN	X				DK 9-26-99
	04	60 UP	X				DK 9-26-99
	05	70 DN		X			DK 9-26-99
	06	70 UP	X				DK 9-26-99
	07	0	X				DK 9-26-99

SIGNATURE [signature] LEVEL III DATE 9-26-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W2

WELD TYPE: UPPER to INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W2-PAR-0-90	01	45 CCW	X				DK 9-26-99
	02	45 CW	X				DK 9-26-99
	03	60 CCW	X				DK 9-26-99
	04	60 CW	X				DK 9-26-99
	05	70 CCW	X				DK 9-26-99
	06	70 CW	X				DK 9-26-99
	07	0	X				DK 9-26-99

SIGNATURE _____ LEVEL III DATE 9-26-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W2

WELD TYPE: UPPER to INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W2-PRP-210-329-AA	01	45 CCW	X				DK 9-26-99
	02	45 CW	X				DK 9-26-99
	03	60 CCW	X				DK 9-26-99
	04	60 CW	X				DK 9-26-99
	05	70 CCW	X				DK 9-26-99
	06	70 CW	X				DK 9-26-99
	07	0	X				DK 9-26-99

SIGNATURE: [signature] LEVEL: III DATE: 9-26-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W2-PRP-180-194

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	180.00	108.00
TOP RIGHT	:	194.00	108.00
BOTTOM LEFT	:	180.00	144.75
BOTTOM RIGHT	:	194.00	144.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	180.00	108.00
TOP RIGHT	:	194.00	108.00
BOTTOM LEFT	:	180.00	144.75
BOTTOM RIGHT	:	194.00	144.75

Increment Size (in) = 0.50
Number of Indexes Specified = 44
Number of Indexes Completed = 44
Scan Area - Original Techniques (sq in) = 808.5
Scan Area - This Scan (sq in) = 808.5
Scan Area - Completed (sq in) = 808.5

	Time	Date
Scan Started	18:57:13	09/25/99
Scan Completed	19:06:51	09/25/99

Robot Operator Signature Ben Jerrington DATE 9/25/99

UT Operator Signature [illegible] DATE 9-25-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W2-PAR-90-180

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	119.51	90.00
TOP RIGHT	:	119.51	180.00
BOTTOM LEFT	:	134.00	90.00
BOTTOM RIGHT	:	134.00	180.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	119.51	90.00
TOP RIGHT	:	119.51	180.00
BOTTOM LEFT	:	134.00	90.00
BOTTOM RIGHT	:	134.00	180.00

Increment Size (in) = 0.50
Number of Indexes Specified = 31
Number of Indexes Completed = 31
Scan Area - Original Techniques (sq in) = 2038.0
Scan Area - This Scan (sq in) = 2038.0
Scan Area - Completed (sq in) = 747.3

	Time	Date
Scan Started	21:41:03	09/25/99
Scan Completed	21:48:20	09/25/99

Robot Operator Signature Ben R. Jurington DATE 9-25-99

UT Operator Signature Michael A. Stein DATE 9-25-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W2-PRP-150-177

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	149.90	115.25
TOP RIGHT	:	177.10	115.25
BOTTOM LEFT	:	149.90	144.75
BOTTOM RIGHT	:	177.10	144.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	149.90	115.25
TOP RIGHT	:	177.10	115.25
BOTTOM LEFT	:	149.90	144.75
BOTTOM RIGHT	:	177.10	144.75

Increment Size (in) = 0.50
Number of Indexes Specified = 84
Number of Indexes Completed = 84
Scan Area - Original Techniques (sq in) = 802.4
Scan Area - This Scan (sq in) = 802.4
Scan Area - Completed (sq in) = 802.4

	Time	Date
Scan Started	00:25:38	09/26/99
Scan Completed	01:06:03	09/26/99

Robot Operator Signature Ben R. Furniston DATE 9/25/99

UT Operator Signature [illegible] DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W2-PRP-177-191

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	176.00	108.00
TOP RIGHT	:	191.00	108.00
BOTTOM LEFT	:	176.00	144.75
BOTTOM RIGHT	:	191.00	144.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	176.00	108.00
TOP RIGHT	:	191.00	108.00
BOTTOM LEFT	:	176.00	144.75
BOTTOM RIGHT	:	191.00	144.75

Increment Size (in) = 0.50
Number of Indexes Specified = 47
Number of Indexes Completed = 47
Scan Area - Original Techniques (sq in) = 737.5
Scan Area - This Scan (sq in) = 737.5
Scan Area - Completed (sq in) = 737.5

	Time	Date
Scan Started	23:40:38	09/25/99
Scan Completed	23:55:03	09/25/99

Robot Operator Signature Ron Livingston DATE 9/25/99

UT Operator Signature [illegible] DATE 9-25-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2

Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W2-PRP-194-210aaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	193.90	116.16
TOP RIGHT	:	221.00	116.16
BOTTOM LEFT	:	193.90	144.75
BOTTOM RIGHT	:	221.00	144.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	193.90	116.16
:	221.00	144.75
:	193.90	144.75
:	221.00	116.16

Increment Size (in)	=	0.50
Number of Indexes Specified	=	83
Number of Indexes Completed	=	83
Scan Area - Original Techniques (sq in)	=	1186.5
Scan Area - This Scan (sq in)	=	1186.5
Scan Area - Completed (sq in)	=	1186.5

	Time	Date
Scan Started	02:07:30	09/26/99
Scan Completed	02:26:11	09/26/99

Robot Operator Signature Ben R. Livingston DATE 9/26/99

UT Operator Signature [illegible] DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W2-PRP-210-329aa
W2 PRP 210 329 AAA

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	210.00	108.00
TOP RIGHT	:	329.00	108.00
BOTTOM LEFT	:	210.00	144.75
BOTTOM RIGHT	:	329.00	144.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	221.00	108.00
TOP RIGHT	:	327.97	108.00
BOTTOM LEFT	:	221.00	144.75
BOTTOM RIGHT	:	327.97	144.75

Increment Size (in) = 0.50
Number of Indexes Specified = 328
Number of Indexes Completed = 324
Scan Area - Original Techniques (sq in) = 6633.4
Scan Area - This Scan (sq in) = 6027.0
Scan Area - Completed (sq in) = 5953.5

	Time	Date
Scan Started	02:43:39	09/26/99
Scan Completed	04:47:32	09/26/99

Robot Operator Signature Ben Livingston DATE 9/26/99
UT Operator Signature Michael R Gain DATE 9-26-99

Comments STOP on segment 324 of 328 will pick up 4 short segments on adjacent scan.

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W2-PAR-180-270

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	119.51	180.00
TOP RIGHT	:	119.51	270.00
BOTTOM LEFT	:	134.00	180.00
BOTTOM RIGHT	:	134.00	270.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	119.51	180.00
TOP RIGHT	:	119.51	270.00
BOTTOM LEFT	:	134.00	180.00
BOTTOM RIGHT	:	134.00	270.00

Increment Size (in) = 0.50
Number of Indexes Specified = 30
Number of Indexes Completed = 30
Scan Area - Original Techniques (sq in) = 2038.0
Scan Area - This Scan (sq in) = 2038.0
Scan Area - Completed (sq in) = 2038.0

	Time	Date
Scan Started	05:25:53	09/26/99
Scan Completed	05:40:52	09/26/99

Robot Operator Signature Ben R. Furrington DATE 9/26/99

UT Operator Signature [illegible] DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W2-PAR-270-360

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	119.51	270.00
TOP RIGHT	:	119.51	360.00
BOTTOM LEFT	:	134.00	270.00
BOTTOM RIGHT	:	134.00	360.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	119.51	270.00
TOP RIGHT	:	119.51	360.00
BOTTOM LEFT	:	134.00	270.00
BOTTOM RIGHT	:	134.00	360.00

Increment Size (in) = 0.50
Number of Indexes Specified = 30
Number of Indexes Completed = 30
Scan Area - Original Techniques (sq in) = 2038.0
Scan Area - This Scan (sq in) = 2038.0
Scan Area - Completed (sq in) = 2038.0

	Time	Date
Scan Started	06:07:52	09/26/99
Scan Completed	06:22:40	09/26/99

Robot Operator Signature [signature] DATE 09/26/99

UT Operator Signature [signature] DATE 9/26/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W2-PRP-329-357aaaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	327.90	116.25
TOP RIGHT	:	357.10	116.25
BOTTOM LEFT	:	327.90	144.75
BOTTOM RIGHT	:	357.10	144.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	327.90	116.25
:	357.10	116.25
:	327.90	144.75
:	357.10	144.75

Increment Size (in)	=	0.50
Number of Indexes Specified	=	90
Number of Indexes Completed	=	90
Scan Area - Original Techniques (sq in)	=	1282.5
Scan Area - This Scan (sq in)	=	1282.5
Scan Area - Completed (sq in)	=	1282.5

	Time	Date
Scan Started	06:55:00	09/26/99
Scan Completed	07:08:21	09/26/99

Robot Operator Signature Gary R. Kuhlke DATE 09/26/99

UT Operator Signature Fred L. McWatt DATE 9/26/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W2-PRP-356-373aaaaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	346.00	108.00
TOP RIGHT	:	373.90	108.00
BOTTOM LEFT	:	346.00	144.75
BOTTOM RIGHT	:	373.90	144.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	357.00	108.00
TOP RIGHT	:	372.00	108.00
BOTTOM LEFT	:	357.00	144.75
BOTTOM RIGHT	:	372.00	144.75

Increment Size (in) = 0.50
Number of Indexes Specified = 47
Number of Indexes Completed = 47
Scan Area - Original Techniques (sq in) = 1580.2
Scan Area - This Scan (sq in) = 863.6
Scan Area - Completed (sq in) = 863.6

	Time	Date
Scan Started	09:31:23	09/26/99
Scan Completed	09:39:53	09/26/99

Robot Operator Signature Gary P. Kistler DATE 9/26/99

UT Operator Signature Fred D. Heilweil DATE 9/26/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W2-PRP-13-40

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	13.90	115.25
TOP RIGHT	:	40.10	115.25
BOTTOM LEFT	:	13.90	144.75
BOTTOM RIGHT	:	40.10	144.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	13.90	115.25
:	40.10	144.75
:	13.90	144.75
:	40.10	115.25

Increment Size (in) = 0.50
Number of Indexes Specified = 81
Number of Indexes Completed = 81
Scan Area - Original Techniques (sq in) = 1194.8
Scan Area - This Scan (sq in) = 1194.8
Scan Area - Completed (sq in) = 1194.8

	Time	Date
Scan Started	10:01:49	09/26/99
Scan Completed	10:14:28	09/26/99

Robot Operator Signature [signature] DATE 09/26/99

UT Operator Signature [signature] DATE 9/26/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID =
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W2-PRP-40-150

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	30.20	108.00
TOP RIGHT	:	150.00	108.00
BOTTOM LEFT	:	30.20	144.75
BOTTOM RIGHT	:	150.00	144.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	40.00	108.00
:	148.30	108.00
:	40.00	144.75
:	148.30	144.75

Increment Size (in) = 0.50
Number of Indexes Specified = 334
Number of Indexes Completed = 328
Scan Area - Original Techniques (sq in) = 6670.1
Scan Area - This Scan (sq in) = 6137.2
Scan Area - Completed (sq in) = 6027.0

	Time	Date
Scan Started	10:35:01	09/26/99
Scan Completed	11:39:26	09/26/99

Robot Operator Signature Gary P. Kistler DATE 09/26/99

UT Operator Signature [illegible] DATE 9/26/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W2-PRP-148-150

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	148.20	112.00
TOP RIGHT	:	150.00	112.00
BOTTOM LEFT	:	148.20	144.75
BOTTOM RIGHT	:	150.00	144.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	148.20	112.00
:	150.00	144.75
:	148.20	144.75
:	150.00	112.00

Increment Size (in)	=	0.50
Number of Indexes Specified	=	7
Number of Indexes Completed	=	7
Scan Area - Original Techniques (sq in)	=	114.6
Scan Area - This Scan (sq in)	=	114.6
Scan Area - Completed (sq in)	=	114.6

	Time	Date
Scan Started	11:48:43	09/26/99
Scan Completed	11:49:42	09/26/99

Robot Operator Signature Gary P. Kistler DATE 09/26/99

UT Operator Signature Fred D. Weldt DATE 9/26/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W2

Weld and Scan Type = SHELL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W2-PAR-0-90

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	119.51	0.00
TOP RIGHT	:	119.51	90.00
BOTTOM LEFT	:	134.00	0.00
BOTTOM RIGHT	:	134.00	90.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	119.51	0.00
:	134.00	0.00
:	119.51	90.00
:	134.00	90.00

Increment Size (in) = 0.50
Number of Indexes Specified = 30
Number of Indexes Completed = 30
Scan Area - Original Techniques (sq in) = 2038.0
Scan Area - This Scan (sq in) = 2038.0
Scan Area - Completed (sq in) = 2038.0

	Time	Date
Scan Started	12:31:48	09/26/99
Scan Completed	12:47:17	09/26/99

Robot Operator Signature Gary P. Knight DATE 09/26/99

UT Operator Signature [illegible] DATE 9/26/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W3 DESCRIPTION Intermediate to Lower Shell Circ.

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
[ ]	[ ]	[X]

NO. OF INDICATIONS 1

STATUS Reference Indication #1 Weld 10

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW
PERP. SCANS UP / DN

ITEM / AREA Intermediate to Lower Shell Circ.

WELD NO. 3

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	100	100	100	100	100				
DOWN (OUT)	100	100	100	100	100	100				
BORE AXIAL										

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W3-PRP-0-90	W3	0	218.5		MF	II	9-25-99	
W3-PAR-0-90	W3	229.5	0		MF	II	9-25-99	
W3-PAR-90-180	W3	229.5	90		MF	II	9-25-99	
W3-PRP-90-180	W3	90	219.3		FH	II	9-25-99	
W3-PRP-180-270	W3	180	219.3		FH	II	9-25-99	
W3-PRP-180-270A	W3	199.21	219.3		FH	II	9-25-99	
W3-PRP-270-360	W3	270	219.3		FH	II	9-25-99	
W3-PRP-270-360A	W3	350.15	219.3		FH	II	9-25-99	
W3-PAR-270-360	W3	229.5	270		FH	II	9-25-99	
W3-PAR-180-270	W3	229.5	180		FH	II	9-25-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT	OPTICAL DISK #
INDIAN POINT #3	IP3-2

WELD #	WELD TYPE:
W3	INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W3-PAR-270-360	01	45 CCW			X	REFERENCE INDICATION ASSESSMENT SHEET INDICATION 1, WELD 10	DK 9-25-99
	02	45 CW			X	REFERENCE INDICATION ASSESSMENT SHEET INDICATION 1, WELD 10	DK 9-25-99
	03	60 CCW	X				DK 9-25-99
	04	60 CW	X				DK 9-25-99
	05	70 CCW	X				DK 9-25-99
	06	70 CW	X				DK 9-25-99
	07	0	X				DK 9-25-99
W3-PRP-270-360	01	45 DN	X				DK 9-25-99
	02	45 UP	X				DK 9-25-99
	03	60 DN	X				DK 9-25-99
	04	60 UP	X				DK 9-25-99
	05	70 DN		X			DK 9-25-99
	06	70 UP	X				DK 9-25-99
	07	0	X				DK 9-25-99

SIGNATURE [signature] LEVEL III DATE 9-25-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W3

WELD TYPE: INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W3-PRP-270-360A	01	45 DN		X			DK 9-25-99
	02	45 UP	X				DK 9-25-99
	03	60 DN	X				DK 9-25-99
	04	60 UP	X				DK 9-25-99
	05	70 DN		X			DK 9-25-99
	06	70 UP	X				DK 9-25-99
	07	0	X				DK 9-25-99
W3-PAR-180-270	01	45 CCW	X				DK 9-25-99
	02	45 CW	X				DK 9-25-99
	03	60 CCW	X				DK 9-25-99
	04	60 CW	X				DK 9-25-99
	05	70 CCW	X				DK 9-25-99
	06	70 CW	X				DK 9-25-99
	07	0	X				DK 9-25-99

SIGNATURE [signature] LEVEL III DATE 9-25-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W3

WELD TYPE: INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W3-PRP-180-270	01	45 DN	X				DK 9-25-99
	02	45 UP	X				DK 9-25-99
	03	60 DN	X				DK 9-25-99
	04	60 UP	X				DK 9-25-99
	05	70 DN	X				DK 9-25-99
	06	70 UP	X				DK 9-25-99
	07	0	X				DK 9-25-99
W3-PRP-180-270A	01	45 DN	X				DK 9-25-99
	02	45 UP	X				DK 9-25-99
	03	60 DN	X				DK 9-25-99
	04	60 UP	X				DK 9-25-99
	05	70 DN	X				DK 9-25-99
	06	70 UP	X				DK 9-25-99
	07	0	X				DK 9-25-99

SIGNATURE [signature] LEVEL III DATE 9-25-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W3

WELD TYPE: INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W3-PAR-90-180	01	45 DN	X				DK 9-25-99
	02	45 UP	X				DK 9-25-99
	03	60 DN	X				DK 9-25-99
	04	60 UP	X				DK 9-25-99
	05	70 DN	X				DK 9-25-99
	06	70 UP	X				DK 9-25-99
	07	0	X				DK 9-25-99
W3-PRP-90-180	01	45 DN		X			DK 9-25-99
	02	45 UP		X			DK 9-25-99
	03	60 DN		X			DK 9-25-99
	04	60 UP	X				DK 9-25-99
	05	70 DN		X			DK 9-25-99
	06	70 UP		X			DK 9-25-99
	07	0	X				DK 9-25-99

SIGNATURE [signature] LEVEL III DATE 9-25-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W3

WELD TYPE: INTERMEDIATE SHELL CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W3-PRP-0-90	01	45 DN	X				SAS 9-25-99
	02	45 UP	X				SAS 9-25-99
	03	60 DN		X			DK 9-25-99
	04	60 UP		X			DK 9-25-99
	05	70 DN	X				DK 9-25-99
	06	70 UP	X				DK 9-25-99
	07	0	X				DK 9-25-99
W3-PAR-0-90	01	45 CCW	X				DK 9-25-99
	02	45 CW	X				DK 9-25-99
	03	60 CCW	X				DK 9-25-99
	04	60 CW	X				DK 9-25-99
	05	70 CCW	X				DK 9-25-99
	06	70 CW	X				DK 9-25-99
	07	0	X				DK 9-25-99

SIGNATURE [signature] LEVEL III DATE 9-25-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W3
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W3-PRP-0-90

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	0.00	219.25
TOP RIGHT	:	90.00	219.25
BOTTOM LEFT	:	0.00	252.25
BOTTOM RIGHT	:	90.00	252.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	0.00	219.50
TOP RIGHT	:	90.00	252.50
BOTTOM LEFT	:	0.00	252.50
BOTTOM RIGHT	:	90.00	219.50

Increment Size (in) = 0.50
Number of Indexes Specified = 273
Number of Indexes Completed = 273
Scan Area - Original Techniques (sq in) = 4504.5
Scan Area - This Scan (sq in) = 4504.5
Scan Area - Completed (sq in) = 4504.5

	Time	Date
Scan Started	03:53:22	09/25/99
Scan Completed	04:57:52	09/25/99

Robot Operator Signature Ben Turrington DATE 9/25/99

UT Operator Signature [illegible] DATE 9-25-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W3
Weld and Scan Type = SHELL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W3-PAR-0-90

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	229.50	0.00
TOP RIGHT	:	229.50	90.00
BOTTOM LEFT	:	242.50	0.00
BOTTOM RIGHT	:	242.50	90.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	229.50	0.00
TOP RIGHT	:	242.50	90.00
BOTTOM LEFT	:	229.50	90.00
BOTTOM RIGHT	:	242.50	0.00

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 1834.2
Scan Area - This Scan (sq in) = 1834.2
Scan Area - Completed (sq in) = 1834.2

	Time	Date
Scan Started	05:30:44	09/25/99
Scan Completed	05:41:53	09/25/99

Robot Operator Signature Ben Livingston DATE 9/25/99

UT Operator Signature [illegible] DATE 9-25-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W3
Weld and Scan Type = SHELL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W3-PAR-90-180

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	229.50	90.00
TOP RIGHT	:	229.50	180.00
BOTTOM LEFT	:	242.50	90.00
BOTTOM RIGHT	:	242.50	180.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	229.50	90.00
TOP RIGHT	:	242.50	180.00
BOTTOM LEFT	:	229.50	180.00
BOTTOM RIGHT	:	242.50	90.00

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 1834.2
Scan Area - This Scan (sq in) = 1834.2
Scan Area - Completed (sq in) = 1834.2

	Time	Date
Scan Started	05:55:43	09/25/99
Scan Completed	06:07:00	09/25/99

Robot Operator Signature Gary P. Kistler DATE _____

UT Operator Signature [illegible] DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W3
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W3-PRP-90-180

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	90.00	219.25
TOP RIGHT	:	180.00	219.25
BOTTOM LEFT	:	90.00	252.25
BOTTOM RIGHT	:	180.00	252.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	90.00	219.50
TOP RIGHT	:	180.00	252.50
BOTTOM LEFT	:	90.00	252.50
BOTTOM RIGHT	:	180.00	219.50

Increment Size (in) = 0.50
Number of Indexes Specified = 273
Number of Indexes Completed = 273
Scan Area - Original Techniques (sq in) = 4504.5
Scan Area - This Scan (sq in) = 4504.5
Scan Area - Completed (sq in) = 4504.5

	Time	Date
Scan Started	06:24:25	09/25/99
Scan Completed	07:16:37	09/25/99

Robot Operator Signature Gary P. Kistler DATE 9/25/99

UT Operator Signature [illegible] DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W3

Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W3-PRP-180-270

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	180.00	219.25
TOP RIGHT	:	270.00	219.25
BOTTOM LEFT	:	180.00	252.25
BOTTOM RIGHT	:	270.00	252.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	180.00	219.50
:	199.87	252.50
:	180.00	252.50
:	199.87	219.50

Increment Size (in) = 0.50
Number of Indexes Specified = 273
Number of Indexes Completed = 61
Scan Area - Original Techniques (sq in) = 4504.5
Scan Area - This Scan (sq in) = 4504.5
Scan Area - Completed (sq in) = 1006.5

	Time	Date
Scan Started	07:31:33	09/25/99
Scan Completed	07:43:22	09/25/99

Robot Operator Signature Gary P. Kistler DATE 09/25/99

UT Operator Signature Fred L. Hu Wolf DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W3
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W3-PRP-180-270a

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	180.00	219.25
TOP RIGHT	:	270.00	219.25
BOTTOM LEFT	:	180.00	252.25
BOTTOM RIGHT	:	270.00	252.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	-160.79	219.50
TOP RIGHT	:	-90.00	252.50
BOTTOM LEFT	:	-160.79	252.50
BOTTOM RIGHT	:	-90.00	219.50

Increment Size (in) = 0.50
Number of Indexes Specified = 273
Number of Indexes Completed = 215
Scan Area - Original Techniques (sq in) = 4504.5
Scan Area - This Scan (sq in) = 4504.5
Scan Area - Completed (sq in) = 3547.5

	Time	Date
Scan Started	08:01:57	09/25/99
Scan Completed	08:44:33	09/25/99

Robot Operator Signature Gary P. Kistler DATE 9/25/99

UT Operator Signature Fred S. Hulwalt DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W3

Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W3-PRP-270-360

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	270.00	219.25
TOP RIGHT	:	360.00	219.25
BOTTOM LEFT	:	270.00	252.25
BOTTOM RIGHT	:	360.00	252.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	270.00	219.50
:	351.80	219.50
:	270.00	252.50
:	351.80	252.50

Increment Size (in)	=	0.50
Number of Indexes Specified	=	273
Number of Indexes Completed	=	248
Scan Area - Original Techniques (sq in)	=	4504.5
Scan Area - This Scan (sq in)	=	4504.5
Scan Area - Completed (sq in)	=	4092.0

	Time	Date
Scan Started	10:36:12	09/25/99
Scan Completed	11:22:22	09/25/99

Robot Operator Signature Gary P. Kistler DATE 09/25/99

UT Operator Signature Fred S. Hubbard DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W3
Weld and Scan Type = SHELL CIRCUMFERENTIAL - PERPENDICULAR SCAN
Scan Data File Name = W3-PRP-270-360a

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	270.00	219.25
TOP RIGHT	:	360.00	219.25
BOTTOM LEFT	:	270.00	252.25
BOTTOM RIGHT	:	360.00	252.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	350.15	219.50
TOP RIGHT	:	360.00	252.50
BOTTOM LEFT	:	350.15	252.50
BOTTOM RIGHT	:	360.00	219.50

Increment Size (in) = 0.50
Number of Indexes Specified = 273
Number of Indexes Completed = 31
Scan Area - Original Techniques (sq in) = 4504.5
Scan Area - This Scan (sq in) = 4504.5
Scan Area - Completed (sq in) = 511.5

	Time	Date
Scan Started	12:05:06	09/25/99
Scan Completed	12:19:11	09/25/99

Robot Operator Signature Gary P. Kistler DATE 9/25/99

UT Operator Signature Fred S. DuBolt DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W3
Weld and Scan Type = SHELL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W3-PAR-270-360

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	229.50	270.00
TOP RIGHT	:	229.50	360.00
BOTTOM LEFT	:	242.50	270.00
BOTTOM RIGHT	:	242.50	360.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	229.50	270.00
TOP RIGHT	:	242.50	360.00
BOTTOM LEFT	:	229.50	360.00
BOTTOM RIGHT	:	242.50	270.00

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 1834.2
Scan Area - This Scan (sq in) = 1834.2
Scan Area - Completed (sq in) = 1834.2

	Time	Date
Scan Started	12:43:44	09/25/99
Scan Completed	12:55:11	09/25/99

Robot Operator Signature Gary P Kistler DATE 9/25/99

UT Operator Signature [illegible] DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W3
Weld and Scan Type = SHELL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W3-PAR-180-270

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	229.50	180.00
TOP RIGHT	:	229.50	270.00
BOTTOM LEFT	:	242.50	180.00
BOTTOM RIGHT	:	242.50	270.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	229.50	180.00
TOP RIGHT	:	242.50	270.00
BOTTOM LEFT	:	229.50	270.00
BOTTOM RIGHT	:	242.50	180.00

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 1834.2
Scan Area - This Scan (sq in) = 1834.2
Scan Area - Completed (sq in) = 1834.2

	Time	Date
Scan Started	13:24:53	09/25/99
Scan Completed	13:36:02	09/25/99

Robot Operator Signature Henry P. Kistler DATE 9/25/99

UT Operator Signature Fred D. Hulbert DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W4 DESCRIPTION Lower Shell to Bottom Head Circ.

LIMITATIONS NO [ ] YES [X] 6 Core Supports Coverage <90% Ref. Summary

RESULTS

NI	NRI	RI
[ ]	[ ]	[X]

NO. OF INDICATIONS 1
STATUS Acceptable

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[X] ASSESSMENT SHEET
[X] ACQUISITION LOG	[X] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW
PERP. SCANS UP / DN

ITEM / AREA Lower Shell to Bottom Head Circ.

WELD NO. 4

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	62	61	62	61	64	61	80			
CW	62	61	62	61	64	61				
UP (IN)	64	66	65	68	66	68		60		
DOWN (OUT)	61	64	63	61	68	62				
BORE AXIAL										

ANALYST

WesDyne International

INDICATION ASSESSMENT

PLANT: INDIAN POINT — UNIT: 3

ANALYST: [illegible] — LEVEL: III — DATE: 9-23-99

FILE / BUFFER	DISK	WELD NO.	INDICATION NO.	BEAM ANGLE	BEAM DIRECTION	CLASSIFICATION VOLUMETRIC / PLANAR	APPLICABLE "t"	FLAW DEPTH MIN / MAX	LENGTH (L)	SURF. / SUB.	S. DIM.	Y VALUE (S / a)	2a DIM. / a DIM.	a / L VALUE (0.50 MAX)	a / t%	ALLOWABLE a / t%	PEAK MAX AMP (% DAC)	PEAK X (SWP#)	PEAK YB	PEAK ZB	NOTES
W4-PRP								0.73					0.17				50%	26			
10-49A-05		W4	1	70	DN	P	6.00	0.9	0.5"	SUB	0.51	1	0.09	0.18	1.5	2	39	32.1	343.1	0.81	1

NOTES

(1) Code Allowable per ASME 1983, IWB 3510-1

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W4-PRP-190-229	W4	190.8	326.9	IP3-2	MF	II	9-23-99	
W4-PRP-250-289	W4	250.8	326.9	IP3-2	FH	II	9-23-99	
W4-PRP-310-349	W4	310.8	326.9	IP3-2	FH	II	9-23-99	
W4-PAR-192-227	W4	335.5	192.46	IP3-2	FH	II	9-23-99	
W4-PAR-252-287	W4	335.5	252.46	IP3-2	FH	II	9-23-99	
W4-PAR-312-347	W4	335.5	312.46	IP3-2	FH	II	9-23-99	
W4-PRP-10-49	W4	10.80	326.7	IP3-2	FH	II	9-23-99	
W4-PRP-10-49A	W4	23.05	326.7	IP3-2	FH	II	9-23-99	
W4-PRP-70-109	W4	70.8	326.9	IP3-2	FH	II	9-23-99	
W4-PRP-70-109A	W4	101-93	326.9	IP3-2	FH	II	9-23-99	
W4-PRP-130-169	W4	130.8	326.9	IP3-2	FH	II	9-23-99	
W4-PAR-12-47	W4	335.5	12.46	IP3-2	FH	II	9-23-99	
W4-PAR-72-107	W4	335.5	72.46	IP3-2	MF	II	9-23-99	
W4-PAR-132-167	W4	335.5	132.46	IP3-2	MF	II	9-23-99	
W4-PRP-229-250	W4	229.2	345.33	IP3-2	MF	II	9-23-99	
W4-PRP-289-310	W4	289.2	345.33	IP3-2	MF	II	9-23-99	
W4-PRP-349-370	W4	349.2	345.33	IP3-2	MF	II	9-23-99	
W4-PAR-227-252	W4	343.83	227.54	IP3-2	MF	II	9-23-99	
W4-PAR-287-312	W4	343.83	287.54	IP3-2	MF	II	9-23-99	
W4-PAR-347-372	W4	343.83	347.54	IP3-2	MF	II	9-23-99	
W4-PRP-49-70	W4	49.2	345.33	IP3-2	MF	II	9-23-99	
W4-PRP-109-130	W4	109.2	345.33	IP3-2	MF	II	9-23-99	
W4-PRP-169-190	W4	169.2	345.33	IP3-2	MF	II	9-23-99	

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DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W4-PAR-47-72	W4	343.83	47.54	IP3-2	MF	II	9-23-99	
W4-PAR-107-132	W4	343.83	107.54	IP3-2	MF	II	9-23-99	
W4-PAR-167-192	W4	343.83	167.54	IP3-2	MF	II	9-23-99	

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ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PRP-190-229	01	45 DN	X				DK 9-22-99
	02	45 UP	X				DK 9-22-99
	03	60 DN	X				DK 9-22-99
	04	60 UP	X				DK 9-22-99
	05	70 DN	X				DK 9-22-99
	06	70 UP		X			DK 9-22-99
	07	0	X				DK 9-22-99
	08	0	X				DK 9-22-99
W4-PRP-250-289	01	45 DN		X			DK 9-22-99
	02	45 UP		X			DK 9-22-99
	03	60 DN	X				DK 9-22-99
	04	60 UP	X				DK 9-22-99
	05	70 DN	X				DK 9-22-99
	06	70 UP	X				DK 9-22-99
	07	0	X				DK 9-22-99
	08	0	X				DK 9-22-99

SIGNATURE: [signature] LEVEL: III DATE: 9-22-99

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International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PRP-310-349	01	45 DN	X				DK 9-23-99
	02	45 UP	X				DK 9-23-99
	03	60 DN	X				DK 9-23-99
	04	60 UP	X				DK 9-23-99
	05	70 DN	X				DK 9-23-99
	06	70 UP	X				DK 9-23-99
	07	0	X				DK 9-23-99
	08	0	X				DK 9-23-99
W4-PAR-192-227	01	45 DN	X				DK 9-23-99
	02	45 UP		X			DK 9-23-99
	03	60 DN	X				DK 9-23-99
	04	60 UP	X				DK 9-23-99
	05	70 DN	X				DK 9-23-99
	06	70 UP	X				DK 9-23-99
	07	0	X				DK 9-23-99
	08	0	X				DK 9-23-99

SIGNATURE [signature] LEVEL III DATE 9-29-99

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International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PAR-252-287	01	45 CW		X			DK 9-23-99
	02	45 CCW	X				DK 9-23-99
	03	60 CW	X				DK 9-23-99
	04	60 CCW	X				DK 9-23-99
	05	70 CW	X				DK 9-23-99
	06	70 CCW	X				DK 9-23-99
	07	0	X				DK 9-23-99
W4-PAR-312-347	01	45CW	X				DK 9-23-99
	02	45CCW	X				DK 9-23-99
	03	60 CW	X				DK 9-23-99
	04	60 CCW	X				DK 9-23-99
	05	70 CW	X				DK 9-23-99
	06	70 CCW	X				DK 9-23-99
	07	0	X				DK 9-23-99

SIGNATURE: [signature] LEVEL: III DATE: 9-23-99

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International

ANALYSIS LOG

PLANT / UNIT	OPTICAL DISK #
INDIAN POINT #3	IP3-2

WELD #	WELD TYPE:
W4	LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PRP-10-49	01	45 DN		X			SAS 9-23-99
	02	45 UP	X				SAS 9-23-99
	03	60 DN	X				SAS 9-23-99
	04	60 UP	X				SAS 9-23-99
	05	70 DN	X				SAS 9-23-99
	06	70 UP	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
	08	0	X				SAS 9-23-99
W4-PRP-10-49A	01	45 DN	X				SAS 9-23-99
	02	45 UP	X				SAS 9-23-99
	03	60 DN	X				SAS 9-23-99
	04	60 UP	X				SAS 9-23-99
	05	70 DN			X	REFERENCE INDICATION ASSESSMENT SHEET INDICATION 1	SAS 9-23-99
	06	70 UP	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
	08	0	X				SAS 9-23-99

SIGNATURE SA Schr LEVEL III DATE 9-23-99

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International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PRP-70-109	01	45 DN	X				SAS 9-23-99
	02	45 UP	X				SAS 9-23-99
	03	60 DN	X				SAS 9-23-99
	04	60 UP	X				SAS 9-23-99
	05	70 DN	X				SAS 9-23-99
	06	70 UP	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
	08	0	X				SAS 9-23-99
W4-PRP-70-109A	01	45 DN	X				SAS 9-23-99
	02	45 UP	X				SAS 9-23-99
	03	60 DN		X			SAS 9-23-99
	04	60 UP	X				SAS 9-23-99
	05	70 DN	X				SAS 9-23-99
	06	70 UP	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
	08	0	X				SAS 9-23-99

SIGNATURE: SA Sal

LEVEL: III

DATE: 9-23-99

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International

ANALYSIS LOG

PLANT / UNIT	OPTICAL DISK #
INDIAN POINT #3	IP3-2

WELD #	WELD TYPE:
W4	LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PRP-130-169	01	45 DN		X			SAS 9-23-99
	02	45 UP	X				SAS 9-23-99
	03	60 DN	X				SAS 9-23-99
	04	60 UP	X				SAS 9-23-99
	05	70 DN	X				SAS 9-23-99
	06	70 UP	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
	08	0	X				SAS 9-23-99
W4-PAR-12-47	01	45CCW	X				SAS 9-23-99
	02	45CW	X				SAS 9-23-99
	03	60CCW	X				SAS 9-23-99
	04	60CW	X				SAS 9-23-99
	05	70CCW	X				SAS 9-23-99
	06	70 CW	X				SAS 9-23-99
	07	0	X				SAS 9-23-99

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ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PAR-72-107	01	45 CCW	X				SAS 9-23-99
	02	45 CW	X				SAS 9-23-99
	03	60 CCW	X				SAS 9-23-99
	04	60 CW	X				SAS 9-23-99
	05	70 CCW	X				SAS 9-23-99
	06	70 CW	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
W4-PAR-132-167	01	45CCW	X				SAS 9-23-99
	02	45CW	X				SAS 9-23-99
	03	60CCW	X				SAS 9-23-99
	04	60CW	X				SAS 9-23-99
	05	70CCW	X				SAS 9-23-99
	06	70 CW	X				SAS 9-23-99
	07	0	X				SAS 9-23-99

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LEVEL: III

DATE: 9-23-99

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International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PRP-229-250	01	45 DN	X				SAS 9-23-99
	02	45 UP	X				SAS 9-23-99
	03	60 DN	X				SAS 9-23-99
	04	60 UP	X				SAS 9-23-99
	05	70 DN	X				SAS 9-23-99
	06	70 UP	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
W4-PRP-289-310	01	45 DN	X				SAS 9-23-99
	02	45 UP	X				SAS 9-23-99
	03	60 DN	X				SAS 9-23-99
	04	60 UP	X				SAS 9-23-99
	05	70 DN	X				SAS 9-23-99
	06	70 UP	X				SAS 9-23-99
	07	0	X				SAS 9-23-99

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LEVEL: III

DATE: 9-23-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PRP-349-370	01	45 DN	X				SAS 9-23-99
	02	45 UP	X				SAS 9-23-99
	03	60 DN	X				SAS 9-23-99
	04	60 UP	X				SAS 9-23-99
	05	70 DN	X				SAS 9-23-99
	06	70 UP	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
W4-PAR-227-252	01	45 CCW	X				SAS 9-23-99
	02	45 CW	X				SAS 9-23-99
	03	60 CCW	X				SAS 9-23-99
	04	60 CW	X				SAS 9-23-99
	05	70 CCW	X				SAS 9-23-99
	06	70 CW	X				SAS 9-23-99
	07	0	X				SAS 9-23-99

SIGNATURE: S A Sabo

LEVEL: III

DATE: 9-23-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PAR-287-312	01	45 CCW	X				SAS 9-23-99
	02	45 CW	X				SAS 9-23-99
	03	60 CCW	X				SAS 9-23-99
	04	60 CW	X				SAS 9-23-99
	05	70 CCW	X				SAS 9-23-99
	06	70 CW	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
W4-PAR-347-372	01	45 CCW	X				SAS 9-24-99
	02	45 CW	X				SAS 9-24-99
	03	60 CCW	X				SAS 9-24-99
	04	60 CW	X				SAS 9-24-99
	05	70 CCW	X				SAS 9-24-99
	06	70 CW	X				SAS 9-24-99
	07	0	X				SAS 9-24-99

SIGNATURE: [signature]

LEVEL: III

DATE: ~~9-23-99~~ SB 9-24-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PRP-49-70	01	45 DN	X				SAS 9-24-99
	02	45 UP	X				SAS 9-24-99
	03	60 DN	X				SAS 9-24-99
	04	60 UP	X				SAS 9-24-99
	05	70 DN	X				SAS 9-24-99
	06	70 UP	X				SAS 9-24-99
	07	0	X				SAS 9-24-99
W4-PRP-109-130	01	45 DN	X				SAS 9-24-99
	02	45 UP	X				SAS 9-24-99
	03	60 DN	X				SAS 9-24-99
	04	60 UP		X			SAS 9-24-99
	05	70 DN	X				SAS 9-24-99
	06	70 UP	X				SAS 9-24-99
	07	0	X				SAS 9-24-99

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LEVEL: III

DATE: 9-24-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PRP-169-190	01	45 DN	X				SAS 9-24-99
	02	45 UP	X				SAS 9-24-99
	03	60 DN	X				SAS 9-24-99
	04	60 UP	X				SAS 9-24-99
	05	70 DN	X				SAS 9-24-99
	06	70 UP	X				SAS 9-24-99
	07	0	X				SAS 9-24-99
W4-PAR-47-72	01	45 CCW	X				SAS 9-24-99
	02	45 CW	X				SAS 9-24-99
	03	60 CCW	X				SAS 9-24-99
	04	60 CW	X				SAS 9-24-99
	05	70 CCW	X				SAS 9-24-99
	06	70 CW	X				SAS 9-24-99
	07	0	X				SAS 9-24-99

SIGNATURE: SA Sab

LEVEL: III

DATE: 9-24-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W4

WELD TYPE: LOWER SHELL to BOTTOM HEAD CIRC.

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W4-PAR-107-132	01	45 CCW	X				SAS 9-24-99
	02	45 CW	X				SAS 9-24-99
	03	60 CCW	X				SAS 9-24-99
	04	60 CW	X				SAS 9-24-99
	05	70 CCW	X				SAS 9-24-99
	06	70 CW	X				SAS 9-24-99
	07	0	X				SAS 9-24-99
W4-PAR-167-192	01	45 CCW	X				SAS 9-24-99
	02	45 CW	X				SAS 9-24-99
	03	60 CCW	X				SAS 9-24-99
	04	60 CW	X				SAS 9-24-99
	05	70 CCW	X				SAS 9-24-99
	06	70 CW	X				SAS 9-24-99
	07	0	X				SAS 9-24-99

SIGNATURE: S A Sabo

LEVEL: III

DATE: 9-24-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....
SITE .....
OUTAGE .....
VESSEL TYPE .....

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PERPENDICUAR SCA
Scan Data File Name = W4-PRP-190-229

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	190.80	326.90
TOP RIGHT	:	229.20	326.90
BOTTOM LEFT	:	190.80	351.57
BOTTOM RIGHT	:	229.20	351.57

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	190.80	326.90
TOP RIGHT	:	229.20	351.57
BOTTOM LEFT	:	190.80	351.57
BOTTOM RIGHT	:	229.20	326.90

TOP LEFT	:	190.80	326.90
TOP RIGHT	:	229.20	351.57
BOTTOM LEFT	:	190.80	351.57
BOTTOM RIGHT	:	229.20	326.90

Increment Size (in) = 0.50
Number of Indexes Specified = 117
Number of Indexes Completed = 117
Scan Area - Original Techniques (sq in) = 1471.9
Scan Area - This Scan (sq in) = 1471.9
Scan Area - Completed (sq in) = 1471.9

	Time	Date
Scan Started	06:14:28	09/23/99
Scan Completed	06:32:00	09/23/99

Robot Operator Signature Gary P. Kistler DATE 9/23/99

UT Operator Signature [illegible] DATE 9/23/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....
SITE .....
OUTAGE .....
VESSEL TYPE .....

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PERPENDICUAR SCA
Scan Data File Name = W4-PRP-250-289

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	250.80	326.90
TOP RIGHT	:	289.20	326.90
BOTTOM LEFT	:	250.80	351.57
BOTTOM RIGHT	:	289.20	351.57

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	250.80	326.90
TOP RIGHT	:	289.20	351.57
BOTTOM LEFT	:	250.80	351.57
BOTTOM RIGHT	:	289.20	326.90

Increment Size (in) = 0.50
Number of Indexes Specified = 117
Number of Indexes Completed = 117
Scan Area - Original Techniques (sq in) = 1471.9
Scan Area - This Scan (sq in) = 1471.9
Scan Area - Completed (sq in) = 1471.9

	Time	Date
Scan Started	07:47:45	09/23/99
Scan Completed	08:06:21	09/23/99

Robot Operator Signature Gary P. Kittler DATE 9/23/99

UT Operator Signature [illegible] DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....
SITE .....
OUTAGE .....
VESSEL TYPE .....

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PERPENDICUAR SCA
Scan Data File Name = W4-PRP-310-349

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	310.80	326.90
TOP RIGHT	:	349.20	326.90
BOTTOM LEFT	:	310.80	351.57
BOTTOM RIGHT	:	349.20	351.57

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	310.80	326.90
TOP RIGHT	:	349.20	351.57
BOTTOM LEFT	:	310.80	351.57
BOTTOM RIGHT	:	349.20	326.90
TOP LEFT	:	348.56	326.90
TOP RIGHT	:	349.20	351.57
BOTTOM LEFT	:	348.56	351.57
BOTTOM RIGHT	:	349.20	326.90
TOP LEFT	:	310.80	326.90
TOP RIGHT	:	349.20	351.57
BOTTOM LEFT	:	310.80	351.57
BOTTOM RIGHT	:	349.20	326.90

Increment Size (in) = 0.50
Number of Indexes Specified = 117
Number of Indexes Completed = 117
Scan Area - Original Techniques (sq in) = 1471.9
Scan Area - This Scan (sq in) = 1471.9
Scan Area - Completed (sq in) = 1471.9

	Time	Date
Scan Started	10:35:37	09/23/99
Scan Completed	10:54:39	09/23/99

Robot Operator Signature _____ DATE 9/23/99

UT Operator Signature _____ DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-192-227

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	335.50	192.46
TOP RIGHT	:	335.50	227.54
BOTTOM LEFT	:	347.72	192.46
BOTTOM RIGHT	:	347.72	227.54

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	335.50	192.46
TOP RIGHT	:	347.38	227.54
BOTTOM LEFT	:	335.50	227.54
BOTTOM RIGHT	:	347.38	192.46

TOP LEFT	:	335.50	192.46
TOP RIGHT	:	347.38	227.54
BOTTOM LEFT	:	335.50	227.54
BOTTOM RIGHT	:	347.38	192.46

Increment Size (in) = 0.50
Number of Indexes Specified = 25
Number of Indexes Completed = 25
Scan Area - Original Techniques (sq in) = 660.2
Scan Area - This Scan (sq in) = 660.2
Scan Area - Completed (sq in) = 660.2

	Time	Date
Scan Started	11:13:44	09/23/99
Scan Completed	11:19:39	09/23/99

Robot Operator Signature Gary P. Kutter DATE 9/23/99

UT Operator Signature [illegible] DATE 9/23/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-252-287

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	335.50	252.46
TOP RIGHT	:	335.50	287.54
BOTTOM LEFT	:	347.72	252.46
BOTTOM RIGHT	:	347.72	287.54

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	335.50	252.46
TOP RIGHT	:	347.38	287.54
BOTTOM LEFT	:	335.50	287.54
BOTTOM RIGHT	:	347.38	252.46

Increment Size (in) = 0.50
Number of Indexes Specified = 25
Number of Indexes Completed = 25
Scan Area - Original Techniques (sq in) = 660.2
Scan Area - This Scan (sq in) = 660.2
Scan Area - Completed (sq in) = 660.2

	Time	Date
Scan Started	11:34:05	09/23/99
Scan Completed	11:40:23	09/23/99

Robot Operator Signature Gary P. Kistler DATE 9/23/99

UT Operator Signature [illegible] DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-312-347

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	335.50	312.46
TOP RIGHT	:	335.50	347.54
BOTTOM LEFT	:	347.72	312.46
BOTTOM RIGHT	:	347.72	347.54

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	335.50	312.46
TOP RIGHT	:	347.38	347.54
BOTTOM LEFT	:	335.50	347.54
BOTTOM RIGHT	:	347.38	312.46

Increment Size (in) = 0.50
Number of Indexes Specified = 25
Number of Indexes Completed = 25
Scan Area - Original Techniques (sq in) = 660.2
Scan Area - This Scan (sq in) = 660.2
Scan Area - Completed (sq in) = 660.2

	Time	Date
Scan Started	15:20:26	09/23/99
Scan Completed	15:26:38	09/23/99

Robot Operator Signature Gary P. Kistler DATE 9/23/99

UT Operator Signature Fred S. Herbert DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PERPENDICUAR SCA
Scan Data File Name = W4-PRP-10-49 & W4-PRP-1049a

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	10.80	326.90
TOP RIGHT	:	49.20	326.90
BOTTOM LEFT	:	10.80	351.57
BOTTOM RIGHT	:	49.20	351.57

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	10.80	326.90
TOP RIGHT	:	48.89	326.90
BOTTOM LEFT	:	10.80	351.57
BOTTOM RIGHT	:	48.89	351.57

Increment Size (in) = 0.50
Number of Indexes Specified = 117
Number of Indexes Completed = 116
Scan Area - Original Techniques (sq in) = 1471.9
Scan Area - This Scan (sq in) = 1471.9
Scan Area - Completed (sq in) = 1459.3

	Time	Date
Scan Started	16:03:37	09/23/99
Scan Completed	16:28:35	09/23/99

Robot Operator Signature Frank R. Kiefer DATE 9/23/99

UT Operator Signature Barry A. Hines DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PERPENDICUAR SCA
Scan Data File Name = W4-PRP-70-109

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	70.80	326.90
TOP RIGHT	:	109.20	326.90
BOTTOM LEFT	:	70.80	351.57
BOTTOM RIGHT	:	109.20	351.57

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	70.80	326.90
TOP RIGHT	:	109.20	351.57
BOTTOM LEFT	:	70.80	351.57
BOTTOM RIGHT	:	109.20	326.90

Increment Size (in) = 0.50
Number of Indexes Specified = 117
Number of Indexes Completed = 117
Scan Area - Original Techniques (sq in) = 1471.9
Scan Area - This Scan (sq in) = 1471.9
Scan Area - Completed (sq in) = 1471.9

	Time	Date
Scan Started	16:44:50	09/23/99
Scan Completed	17:09:31	09/23/99

Robot Operator Signature Gary P. Kittler DATE 9/23/99

UT Operator Signature Fred S. DeWalt DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PERPENDICUAR SCA
Scan Data File Name = W4-PRP-130-169

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	130.80	326.90
TOP RIGHT	:	169.20	326.90
BOTTOM LEFT	:	130.80	351.57
BOTTOM RIGHT	:	169.20	351.57

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	130.80	326.90
TOP RIGHT	:	169.20	351.57
BOTTOM LEFT	:	130.80	351.57
BOTTOM RIGHT	:	169.20	326.90

Increment Size (in) = 0.50
Number of Indexes Specified = 117
Number of Indexes Completed = 117
Scan Area - Original Techniques (sq in) = 1471.9
Scan Area - This Scan (sq in) = 1471.9
Scan Area - Completed (sq in) = 1471.9

	Time	Date
Scan Started	17:18:14	09/23/99
Scan Completed	17:36:56	09/23/99

Robot Operator Signature Gary P. Kistler DATE 9/25/99

UT Operator Signature [illegible] DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-12-47

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	335.50	12.46
TOP RIGHT	:	335.50	47.54
BOTTOM LEFT	:	347.72	12.46
BOTTOM RIGHT	:	347.72	47.54

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	335.50	12.46
TOP RIGHT	:	347.38	47.54
BOTTOM LEFT	:	335.50	47.54
BOTTOM RIGHT	:	347.38	12.46
TOP LEFT	:	335.50	12.46
TOP RIGHT	:	347.38	47.54
BOTTOM LEFT	:	335.50	47.54
BOTTOM RIGHT	:	347.38	12.46
TOP LEFT	:	335.50	12.46
TOP RIGHT	:	347.38	47.54
BOTTOM LEFT	:	335.50	47.54
BOTTOM RIGHT	:	347.38	12.46

Increment Size (in) = 0.50
Number of Indexes Specified = 25
Number of Indexes Completed = 25
Scan Area - Original Techniques (sq in) = 660.2
Scan Area - This Scan (sq in) = 660.2
Scan Area - Completed (sq in) = 660.2

	Time	Date
Scan Started	17:49:43	09/23/99
Scan Completed	17:56:45	09/23/99

Robot Operator Signature Ben Turrington DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-72-107

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	335.50	72.46
TOP RIGHT	:	335.50	107.54
BOTTOM LEFT	:	347.72	72.46
BOTTOM RIGHT	:	347.72	107.54

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	335.50	72.46
TOP RIGHT	:	347.38	107.54
BOTTOM LEFT	:	335.50	107.54
BOTTOM RIGHT	:	347.38	72.46

Increment Size (in) = 0.50
Number of Indexes Specified = 25
Number of Indexes Completed = 25
Scan Area - Original Techniques (sq in) = 660.2
Scan Area - This Scan (sq in) = 660.2
Scan Area - Completed (sq in) = 660.2

	Time	Date
Scan Started	18:09:53	09/23/99
Scan Completed	18:15:11	09/23/99

Robot Operator Signature Ben Springston DATE 9-23-99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD-VESSEL CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-132-167

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		ELEVATION (IN)	AZIMUTH (DEGREES)
TOP LEFT	:	335.50	132.46
TOP RIGHT	:	335.50	167.54
BOTTOM LEFT	:	347.72	132.46
BOTTOM RIGHT	:	347.72	167.54

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	335.50	132.46
TOP RIGHT	:	347.38	167.54
BOTTOM LEFT	:	335.50	167.54
BOTTOM RIGHT	:	347.38	132.46

Increment Size (in) = 0.50
Number of Indexes Specified = 25
Number of Indexes Completed = 25
Scan Area - Original Techniques (sq in) = 660.2
Scan Area - This Scan (sq in) = 660.2
Scan Area - Completed (sq in) = 660.2

	Time	Date
Scan Started	18:23:15	09/23/99
Scan Completed	18:28:16	09/23/99

Robot Operator Signature Ben Jurington DATE 9-23-99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PERPENDICULAR SCAN
Scan Data File Name = W4-PRP-229-250

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	MERIDINAL (DEGREES)
TOP LEFT	:	229.20	77.00
TOP RIGHT	:	250.80	77.00
BOTTOM LEFT	:	229.20	72.80
BOTTOM RIGHT	:	250.80	72.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	229.20	72.80
TOP RIGHT	:	250.80	72.80
BOTTOM LEFT	:	229.20	77.00
BOTTOM RIGHT	:	250.80	77.00

Increment Size (in) = 0.50
Number of Indexes Specified = 68
Number of Indexes Completed = 68
Scan Area - Original Techniques (sq in) = 219.6
Scan Area - This Scan (sq in) = 219.6
Scan Area - Completed (sq in) = 219.6

	Time	Date
Scan Started	18:43:14	09/23/99
Scan Completed	18:49:10	09/23/99

Robot Operator Signature Ben Furrington DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PERPENDICULAR SCAN
Scan Data File Name = W4-PRP-289-310

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	MERIDINAL (DEGREES)
TOP LEFT	:	289.20	77.00
TOP RIGHT	:	310.80	77.00
BOTTOM LEFT	:	289.20	72.80
BOTTOM RIGHT	:	310.80	72.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	289.20	72.80
TOP RIGHT	:	310.80	72.80
BOTTOM LEFT	:	289.20	77.00
BOTTOM RIGHT	:	310.80	77.00

Increment Size (in) = 0.50
Number of Indexes Specified = 68
Number of Indexes Completed = 68
Scan Area - Original Techniques (sq in) = 219.6
Scan Area - This Scan (sq in) = 219.6
Scan Area - Completed (sq in) = 219.6

	Time	Date
Scan Started	19:00:02	09/23/99
Scan Completed	19:05:28	09/23/99

Robot Operator Signature Ben Livingston DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PERPENDICULAR SCAN
Scan Data File Name = W4-PRP-349-370

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	MERIDINAL (DEGREES)
TOP LEFT	:	349.20	77.00
TOP RIGHT	:	370.80	77.00
BOTTOM LEFT	:	349.20	72.80
BOTTOM RIGHT	:	370.80	72.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	349.20	72.80
TOP RIGHT	:	370.80	72.80
BOTTOM LEFT	:	349.20	77.00
BOTTOM RIGHT	:	370.80	77.00

Increment Size (in) = 0.50
Number of Indexes Specified = 68
Number of Indexes Completed = 68
Scan Area - Original Techniques (sq in) = 219.6
Scan Area - This Scan (sq in) = 219.6
Scan Area - Completed (sq in) = 219.6

	Time	Date
Scan Started	19:14:33	09/23/99
Scan Completed	19:20:03	09/23/99

Robot Operator Signature Ben Livingston DATE 9-23-99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-227-252

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		MERIDINAL (DEGREES)	AZIMUTH (DEGREES)
TOP LEFT	:	78.00	227.54
TOP RIGHT	:	78.00	252.46
BOTTOM LEFT	:	75.40	227.54
BOTTOM RIGHT	:	75.40	252.46

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	78.00	227.54
TOP RIGHT	:	75.40	227.54
BOTTOM LEFT	:	78.00	252.46
BOTTOM RIGHT	:	75.40	252.46

Increment Size (in) = 0.50
Number of Indexes Specified = 10
Number of Indexes Completed = 10
Scan Area - Original Techniques (sq in) = 191.7
Scan Area - This Scan (sq in) = 191.7
Scan Area - Completed (sq in) = 191.7

	Time	Date
Scan Started	19:32:15	09/23/99
Scan Completed	19:33:42	09/23/99

Robot Operator Signature Ben Livingston DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-287-312

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		MERIDINAL (DEGREES)	AZIMUTH (DEGREES)
TOP LEFT	:	78.00	287.54
TOP RIGHT	:	78.00	312.46
BOTTOM LEFT	:	75.40	287.54
BOTTOM RIGHT	:	75.40	312.46

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	78.00	287.54
TOP RIGHT	:	75.40	287.54
BOTTOM LEFT	:	78.00	312.46
BOTTOM RIGHT	:	75.40	312.46

Increment Size (in) = 0.50
Number of Indexes Specified = 10
Number of Indexes Completed = 10
Scan Area - Original Techniques (sq in) = 191.7
Scan Area - This Scan (sq in) = 191.7
Scan Area - Completed (sq in) = 191.7

	Time	Date
Scan Started	19:41:00	09/23/99
Scan Completed	19:42:30	09/23/99

Robot Operator Signature Ben R. Furington DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-347-372

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		MERIDINAL (DEGREES)	AZIMUTH (DEGREES)
TOP LEFT	:	78.00	347.54
TOP RIGHT	:	78.00	372.46
BOTTOM LEFT	:	75.40	347.54
BOTTOM RIGHT	:	75.40	372.46

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	78.00	347.54
TOP RIGHT	:	75.40	347.54
BOTTOM LEFT	:	78.00	372.46
BOTTOM RIGHT	:	75.40	372.46

Increment Size (in) = 0.50
Number of Indexes Specified = 10
Number of Indexes Completed = 10
Scan Area - Original Techniques (sq in) = 191.7
Scan Area - This Scan (sq in) = 191.7
Scan Area - Completed (sq in) = 191.7

	Time	Date
Scan Started	19:51:07	09/23/99
Scan Completed	19:52:37	09/23/99

Robot Operator Signature Ben Turrington DATE 9-23-99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PERPENDICULAR SCAN
Scan Data File Name = W4-PRP-49-70

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	MERIDINAL (DEGREES)
TOP LEFT	:	49.20	77.00
TOP RIGHT	:	70.80	77.00
BOTTOM LEFT	:	49.20	72.80
BOTTOM RIGHT	:	70.80	72.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	49.20	72.80
TOP RIGHT	:	70.80	72.80
BOTTOM LEFT	:	49.20	77.00
BOTTOM RIGHT	:	70.80	77.00

Increment Size (in) = 0.50
Number of Indexes Specified = 68
Number of Indexes Completed = 68
Scan Area - Original Techniques (sq in) = 219.6
Scan Area - This Scan (sq in) = 219.6
Scan Area - Completed (sq in) = 219.6

	Time	Date
Scan Started	20:05:03	09/23/99
Scan Completed	20:11:00	09/23/99

Robot Operator Signature Ben Jurrington DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PERPENDICULAR SCAN
Scan Data File Name = W4-PRP-109-130

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION	AZIMUTH (DEGREES)	MERIDINAL (DEGREES)
TOP LEFT :	109.20	77.00
TOP RIGHT :	130.80	77.00
BOTTOM LEFT :	109.20	72.80
BOTTOM RIGHT :	130.80	72.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT :	109.20	72.80
TOP RIGHT :	130.80	72.80
BOTTOM LEFT :	109.20	77.00
BOTTOM RIGHT :	130.80	77.00

Increment Size (in) = 0.50
Number of Indexes Specified = 68
Number of Indexes Completed = 68
Scan Area - Original Techniques (sq in) = 219.6
Scan Area - This Scan (sq in) = 219.6
Scan Area - Completed (sq in) = 219.6

	Time	Date
Scan Started	20:15:12	09/23/99
Scan Completed	20:20:32	09/23/99

Robot Operator Signature Ben Livingston DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PERPENDICULAR SCAN
Scan Data File Name = W4-PRP-169-190

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	MERIDINAL (DEGREES)
TOP LEFT	:	169.20	77.00
TOP RIGHT	:	190.80	77.00
BOTTOM LEFT	:	169.20	72.80
BOTTOM RIGHT	:	190.80	72.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	169.20	72.80
TOP RIGHT	:	190.80	72.80
BOTTOM LEFT	:	169.20	77.00
BOTTOM RIGHT	:	190.80	77.00

Increment Size (in) = 0.50
Number of Indexes Specified = 68
Number of Indexes Completed = 68
Scan Area - Original Techniques (sq in) = 219.6
Scan Area - This Scan (sq in) = 219.6
Scan Area - Completed (sq in) = 219.6

	Time	Date
Scan Started	20:24:55	09/23/99
Scan Completed	20:30:19	09/23/99

Robot Operator Signature Ben Fuirington DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-47-72

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		MERIDINAL (DEGREES)	AZIMUTH (DEGREES)
TOP LEFT	:	78.00	47.54
TOP RIGHT	:	78.00	72.46
BOTTOM LEFT	:	75.40	47.54
BOTTOM RIGHT	:	75.40	72.46

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	78.00	47.54
TOP RIGHT	:	75.40	47.54
BOTTOM LEFT	:	78.00	72.46
BOTTOM RIGHT	:	75.40	72.46

Increment Size (in) = 0.50
Number of Indexes Specified = 10
Number of Indexes Completed = 10
Scan Area - Original Techniques (sq in) = 191.7
Scan Area - This Scan (sq in) = 191.7
Scan Area - Completed (sq in) = 191.7

	Time	Date
Scan Started	20:35:33	09/23/99
Scan Completed	20:37:00	09/23/99

Robot Operator Signature Ben Livingston DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-107-132

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		MERIDINAL (DEGREES)	AZIMUTH (DEGREES)
TOP LEFT	:	78.00	107.54
TOP RIGHT	:	78.00	132.46
BOTTOM LEFT	:	75.40	107.54
BOTTOM RIGHT	:	75.40	132.46

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	78.00	107.54
TOP RIGHT	:	75.40	107.54
BOTTOM LEFT	:	78.00	132.46
BOTTOM RIGHT	:	75.40	132.46

Increment Size (in) = 0.50
Number of Indexes Specified = 10
Number of Indexes Completed = 10
Scan Area - Original Techniques (sq in) = 191.7
Scan Area - This Scan (sq in) = 191.7
Scan Area - Completed (sq in) = 191.7

	Time	Date
Scan Started	20:41:52	09/23/99
Scan Completed	20:43:17	09/23/99

Robot Operator Signature Ben Livingston DATE 9/23/99

UT Operator Signature [illegible] DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W4
Weld and Scan Type = HEAD CIRCUMFERENTIAL PARALLEL SCAN
Scan Data File Name = W4-PAR-167-192

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		MERIDINAL (DEGREES)	AZIMUTH (DEGREES)
TOP LEFT	:	78.00	167.54
TOP RIGHT	:	78.00	192.46
BOTTOM LEFT	:	75.40	167.54
BOTTOM RIGHT	:	75.40	192.46

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	78.00	167.54
TOP RIGHT	:	75.40	167.54
BOTTOM LEFT	:	78.00	192.46
BOTTOM RIGHT	:	75.40	192.46

Increment Size (in) = 0.50
Number of Indexes Specified = 10
Number of Indexes Completed = 10
Scan Area - Original Techniques (sq in) = 191.7
Scan Area - This Scan (sq in) = 191.7
Scan Area - Completed (sq in) = 191.7

	Time	Date
Scan Started	20:47:17	09/23/99
Scan Completed	20:48:42	09/23/99

Robot Operator Signature Ben Jerrington DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W5 DESCRIPTION Upper Shell Course Long Seam at 7°

LIMITATIONS NO [ ] YES [X] Nozzle boss Ref. Summary Coverage <90%

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0
STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS UP / DN
PERP. SCANS CW / CCW

ITEM / AREA Upper Shell Course Long Seam at 7°

WELD NO. 5

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	78	78	78	78	76	76	75	75		
CW	78	78	78	78	76	76				
UP (IN)	75	75	75	75	75	75				
DOWN (OUT)	75	75	75	75	75	75				
BORE AXIAL										

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W5-PRP-112-119A	W5	112	355.2		FSH	II	9-27-99	
W5-PRP-112-119	W5	114	355.2		FSH	II	9-27-99	
W5-PAR-110-115	W5	1.75	110		FSH	II	9-27-99	
W5-PAR-49-59	W5	1.75	49.5		FSH	II	9-27-99	
W5-PRP-35-62	W5	32.25	355.2		FSH	II	9-27-99	
W5-PRP-35-62A	W5	59.25	355.2		FSH	II	9-27-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W5

WELD TYPE: UPPER LONG SEAM AT 7°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W5-PAR-110-115	01	45S DN	X				YZ 9-27-99
	02	45S UP	X				YZ 9-27-99
	03	60S DN	X				YZ 9-27-99
	04	60S UP	X				YZ 9-27-99
	05	70L DN	X				YZ 9-27-99
	06	70L UP	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99
W5-PAR-49-59	01	45S DN	X				YZ 9-27-99
	02	45S UP	X				YZ 9-27-99
	03	60S DN	X				YZ 9-27-99
	04	60S UP	X				YZ 9-27-99
	05	70L DN	X				YZ 9-27-99
	06	70L UP	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99
W5-PRP-112-119a	01	45S CCW	X				YZ 9-27-99
	02	45S CW	X				YZ 9-27-99
	03	60S CCW	X				YZ 9-27-99
	04	60S CW	X				YZ 9-27-99
	05	70L CCW	X				YZ 9-27-99

SIGNATURE: Virgil [illegible] LEVEL: III DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W5

WELD TYPE: UPPER LONG SEAM AT 7°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W5-PRP-112-119a	06	70L CW	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99
W5-PRP-112-119	01	45S CCW	X				YZ 9-27-99
	02	45S CW	X				YZ 9-27-99
	03	60S CCW	X				YZ 9-27-99
	04	60S CW	X				YZ 9-27-99
	05	70L CCW	X				YZ 9-27-99
	06	70L CW	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99
W5-PRP-35-62	01	45S CCW	X				YZ 9-27-99
	02	45S CW	X				YZ 9-27-99
	03	60S CCW	X				YZ 9-27-99
	04	60S CW	X				YZ 9-27-99
	05	70L CCW	X				YZ 9-27-99
	06	70L CW	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99

SIGNATURE [illegible] LEVEL III DATE 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W5

WELD TYPE: UPPER LONG SEAM AT 7°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W5-PRP-35-62a	01	45S CCW	X				YZ 9-27-99
	02	45S CW	X				YZ 9-27-99
	03	60S CCW	X				YZ 9-27-99
	04	60S CW	X				YZ 9-27-99
	05	70L CCW	X				YZ 9-27-99
	06	70L CW	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99

SIGNATURE: Yingda Z

LEVEL: III

DATE: 9/27/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W5
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W5-PRP-112-119A

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	355.20	112.00
TOP RIGHT	:	373.24	112.00
BOTTOM LEFT	:	355.20	119.00
BOTTOM RIGHT	:	373.24	119.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	112.00	355.20
:	113.50	355.20
:	112.00	373.24
:	113.50	373.24

Increment Size (in)	=	0.50
Number of Indexes Specified	=	15
Number of Indexes Completed	=	4
Scan Area - Original Techniques (sq in)	=	201.7
Scan Area - This Scan (sq in)	=	201.7
Scan Area - Completed (sq in)	=	53.8

	Time	Date
Scan Started	14:13:16	09/27/99
Scan Completed	14:13:38	09/27/99

Robot Operator Signature Gary P. Kistler DATE 09/27/99

UT Operator Signature [illegible] DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W5
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W5-PRP-112-119

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	355.20	112.00
TOP RIGHT	:	378.80	112.00
BOTTOM LEFT	:	355.20	119.00
BOTTOM RIGHT	:	378.80	119.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	113.50	378.80
:	119.00	378.80
:	113.50	355.20
:	119.00	355.20

Increment Size (in) = 0.50
Number of Indexes Specified = 15
Number of Indexes Completed = 12
Scan Area - Original Techniques (sq in) = 263.9
Scan Area - This Scan (sq in) = 263.9
Scan Area - Completed (sq in) = 211.1

	Time	Date
Scan Started	14:17:43	09/27/99
Scan Completed	14:22:43	09/27/99

Robot Operator Signature Gary P. Kistler DATE 09-27-99

UT Operator Signature [illegible] DATE 09/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W5
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN

Scan Data File Name = W5-PAR-110-115

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	1.75	110.00
TOP RIGHT	:	12.25	110.00
BOTTOM LEFT	:	1.75	115.00
BOTTOM RIGHT	:	12.25	115.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	1.75	110.00
:	12.25	115.00
:	1.75	115.00
:	12.25	110.00

Increment Size (in)	=	0.50
Number of Indexes Specified	=	33
Number of Indexes Completed	=	33
Scan Area - Original Techniques (sq in)	=	82.5
Scan Area - This Scan (sq in)	=	82.5
Scan Area - Completed (sq in)	=	82.5

	Time	Date
Scan Started	14:35:05	09/27/99
Scan Completed	14:37:43	09/27/99

Robot Operator Signature Gary P. Keith DATE 09/27/99

UT Operator Signature [illegible] DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W5
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN

Scan Data File Name = W5-PAR-49-59

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	1.75	49.50
TOP RIGHT	:	12.25	49.50
BOTTOM LEFT	:	1.75	59.25
BOTTOM RIGHT	:	12.25	59.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	1.75	49.50
:	12.25	59.25
:	1.75	59.25
:	12.25	49.50

Increment Size (in)	=	0.50
Number of Indexes Specified	=	33
Number of Indexes Completed	=	33
Scan Area - Original Techniques (sq in)	=	160.9
Scan Area - This Scan (sq in)	=	160.9
Scan Area - Completed (sq in)	=	160.9

	Time	Date
Scan Started	14:43:24	09/27/99
Scan Completed	14:46:07	09/27/99

Robot Operator Signature Gary P. Kistler DATE 09/27/99

UT Operator Signature Fred D. Hewitt DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W5
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W5-PRP-35-62

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	355.20	35.25
TOP RIGHT	:	378.80	35.25
BOTTOM LEFT	:	355.20	62.25
BOTTOM RIGHT	:	378.80	62.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	35.25	355.20
:	59.25	378.80
:	35.25	378.80
:	59.25	355.20

Increment Size (in) = 0.50
Number of Indexes Specified = 55
Number of Indexes Completed = 49
Scan Area - Original Techniques (sq in) = 967.7
Scan Area - This Scan (sq in) = 967.7
Scan Area - Completed (sq in) = 862.2

	Time	Date
Scan Started	14:56:28	09/27/99
Scan Completed	15:03:46	09/27/99

Robot Operator Signature Gary P. Kistler DATE 09/27/99

UT Operator Signature Fred L. Hulwalt DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W5
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W5-PRP-35-62a

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	355.20	35.25
TOP RIGHT	:	378.80	35.25
BOTTOM LEFT	:	355.20	62.25
BOTTOM RIGHT	:	378.80	62.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	59.25	355.20
:	61.75	355.20
:	59.25	370.26
:	61.75	370.26

Increment Size (in) = 0.50
Number of Indexes Specified = 55
Number of Indexes Completed = 7
Scan Area - Original Techniques (sq in) = 967.7
Scan Area - This Scan (sq in) = 617.7
Scan Area - Completed (sq in) = 78.6

	Time	Date
Scan Started	15:09:22	09/27/99
Scan Completed	15:12:00	09/27/99

Robot Operator Signature Gary P. Kotter DATE 09/27/99

UT Operator Signature Fred L. Hulbert DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W6 DESCRIPTION Upper Shell Course Long Seam at 127°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS UP / DN

PERP. SCANS CW / CCW

ITEM / AREA Upper Shell Course Long Seam at 127° WELD NO. 6

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	100	100	100	100	100				
DOWN (OUT)	100	100	100	100	100	100				
BORE AXIAL										

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W6-PRP-35-65	W6	35.25	115.2		FSH	II	9-27-99	
W6-PAR-49-67	W6	121.75	49.5		FSH	II	9-27-99	
W6-PAR-89-94	W6	126.75	89.0		FSH	II	9-27-99	
W6-PAR-67.9-94.25A	W6	126.75	67.9		FSH	II	9-27-99	
W6-PAR-94-115	W6	121.75	94.25		FSH	II	9-27-99	
W6-PRP-106-119	W6	106	115.2		FSH	II	9-27-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W6

WELD TYPE: UPPER LONG SEAM AT 127°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W6-PRP-35-65	01	45S CCW	X				YZ 9-27-99
	02	45S CW	X				YZ 9-27-99
	03	60S CCW	X				YZ 9-27-99
	04	60S CW	X				YZ 9-27-99
	05	70L CCW	X				YZ 9-27-99
	06	70L CW	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99
W6-PRP-106-119	01	45S CCW	X				YZ 9-27-99
	02	45S CW	X				YZ 9-27-99
	03	60S CCW	X				YZ 9-27-99
	04	60S CW	X				YZ 9-27-99
	05	70L CCW	X				YZ 9-27-99
	06	70L CW	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99
W6-PAR-49-67	01	45S DN	X				YZ 9-27-99
	02	45S UP	X				YZ 9-27-99
	03	60S DN	X				YZ 9-27-99
	04	60S UP	X				YZ 9-27-99
	05	70L DN	X				YZ 9-27-99

SIGNATURE: Yingh Zu LEVEL: III DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W6

WELD TYPE: UPPER LONG SEAM AT 127°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
W6-PAR-49-67	06	70L UP	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W6-PAR-67.9-94.25a	01	45S DN	X				YZ	9-27-99
	02	45S UP	X				YZ	9-27-99
	03	60S DN	X				YZ	9-27-99
	04	60S UP	X				YZ	9-27-99
	05	70L DN	X				YZ	9-27-99
	06	70L UP	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W6-PAR-89-94	01	45S DN	X				YZ	9-27-99
	02	45S UP	X				YZ	9-27-99
	03	60S DN	X				YZ	9-27-99
	04	60S UP	X				YZ	9-27-99
	05	70L DN	X				YZ	9-27-99
	06	70L UP	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99

SIGNATURE: Yingda Z

LEVEL: III

DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W6

WELD TYPE: UPPER LONG SEAM AT 127°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W6-PAR-94-115	01	45S DN	X				YZ 9-27-99
	02	45S UP	X				YZ 9-27-99
	03	60S DN	X				YZ 9-27-99
	04	60S UP	X				YZ 9-27-99
	05	70L DN	X				YZ 9-27-99
	06	70L UP	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99

SIGNATURE: [illegible]

LEVEL: III

DATE: 9/27/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W6
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W6-PRP-35-65

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	115.20	35.25
TOP RIGHT	:	138.80	35.25
BOTTOM LEFT	:	115.20	65.25
BOTTOM RIGHT	:	138.80	65.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	35.25	115.20
:	65.25	138.80
:	35.25	138.80
:	65.25	115.20

Increment Size (in)	=	0.50
Number of Indexes Specified	=	61
Number of Indexes Completed	=	61
Scan Area - Original Techniques (sq in)	=	1073.3
Scan Area - This Scan (sq in)	=	1073.3
Scan Area - Completed (sq in)	=	1073.3

	Time	Date
Scan Started	12:37:03	09/27/99
Scan Completed	12:46:24	09/27/99

Robot Operator Signature Gary P. Kirtlan DATE 09/27/99

UT Operator Signature Fred D. Hubbell DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W6
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN

Scan Data File Name = W6-PAR-49-67

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	121.75	49.50
TOP RIGHT	:	132.25	49.50
BOTTOM LEFT	:	121.75	67.90
BOTTOM RIGHT	:	132.25	67.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	121.75	49.50
:	132.25	67.90
:	121.75	67.90
:	132.25	49.50

Increment Size (in)	=	0.50
Number of Indexes Specified	=	33
Number of Indexes Completed	=	33
Scan Area - Original Techniques (sq in)	=	303.6
Scan Area - This Scan (sq in)	=	303.6
Scan Area - Completed (sq in)	=	303.6

	Time	Date
Scan Started	12:53:40	09/27/99
Scan Completed	12:57:09	09/27/99

Robot Operator Signature Gary P. Kolbe DATE 09/27/99

UT Operator Signature Fred S. McWalt DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W6
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN

Scan Data File Name = W6-PAR-89-94

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	126.75	89.00
TOP RIGHT	:	138.80	89.00
BOTTOM LEFT	:	126.75	94.50
BOTTOM RIGHT	:	138.80	94.50

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	126.75	89.00
:	138.80	94.50
:	126.75	94.50
:	138.80	89.00

Increment Size (in) = 0.50
Number of Indexes Specified = 37
Number of Indexes Completed = 37
Scan Area - Original Techniques (sq in) = 101.8
Scan Area - This Scan (sq in) = 101.8
Scan Area - Completed (sq in) = 101.8

	Time	Date
Scan Started	13:03:04	09/27/99
Scan Completed	13:05:50	09/27/99

Robot Operator Signature Gary P. Kistler DATE 09/27/99

UT Operator Signature Fred S. Heilbolt DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W6
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN
Scan Data File Name = W6-PAR-67.9-94.25a

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	126.75	67.90
TOP RIGHT	:	132.25	67.90
BOTTOM LEFT	:	126.75	94.25
BOTTOM RIGHT	:	132.25	94.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	126.75	67.90
:	132.25	67.90
:	126.75	94.25
:	132.25	94.25

Increment Size (in) = 0.50
Number of Indexes Specified = 18
Number of Indexes Completed = 18
Scan Area - Original Techniques (sq in) = 237.2
Scan Area - This Scan (sq in) = 237.2
Scan Area - Completed (sq in) = 237.2

	Time	Date
Scan Started	13:31:28	09/27/99
Scan Completed	13:33:51	09/27/99

Robot Operator Signature [signature] DATE 9/27/99

UT Operator Signature [signature] DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W6
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN

Scan Data File Name = W6-PAR-94-115

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	121.75	94.25
TOP RIGHT	:	132.25	94.25
BOTTOM LEFT	:	121.75	115.00
BOTTOM RIGHT	:	132.25	115.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	121.75	94.25
:	132.25	115.00
:	121.75	115.00
:	132.25	94.25

Increment Size (in) = 0.50
Number of Indexes Specified = 33
Number of Indexes Completed = 33
Scan Area - Original Techniques (sq in) = 342.4
Scan Area - This Scan (sq in) = 342.4
Scan Area - Completed (sq in) = 342.4

	Time	Date
Scan Started	13:42:40	09/27/99
Scan Completed	13:46:27	09/27/99

Robot Operator Signature Gary P. Kistler DATE 09/27/99

UT Operator Signature Leo H. Heldt DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W6
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W6-PRP-106-119

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	115.20	106.00
TOP RIGHT	:	138.80	106.00
BOTTOM LEFT	:	115.20	119.00
BOTTOM RIGHT	:	138.80	119.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	106.00	115.20
:	119.00	138.80
:	106.00	138.80
:	119.00	115.20

Increment Size (in) = 0.50
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 475.1
Scan Area - This Scan (sq in) = 475.1
Scan Area - Completed (sq in) = 475.1

	Time	Date
Scan Started	13:53:54	09/27/99
Scan Completed	13:57:49	09/27/99

Robot Operator Signature [signature] DATE 09/27/99

UT Operator Signature [signature] DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W7 DESCRIPTION Upper Shell Course Long Seam at 247°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0
STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS UP / DN

PERP. SCANS CW / CCW

ITEM / AREA Upper Shell Course Long Seam at 247° WELD NO. 7

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	100	100	100	100	100				
DOWN (OUT)	100	100	100	100	100	100				
BORE AXIAL										

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W7-PRP-35-52	W7	35.25	235.2		FSH	II	9-27-99	
W7-PAR-49-61	W7	241.75	49.5		FSH	II	9-27-99	
W7-PAR-109-115	W7	241.75	109.0		FSH	II	9-27-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W7

WELD TYPE: UPPER LONG SEAM AT 247°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
W7-PAR-109-115	01	45S DN	X				YZ	9-27-99
	02	45S UP	X				YZ	9-27-99
	03	60S DN	X				YZ	9-27-99
	04	60S UP	X				YZ	9-27-99
	05	70L DN	X				YZ	9-27-99
	06	70L UP	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W7-PAR-49-61	01	45S DN	X				YZ	9-27-99
	02	45S UP	X				YZ	9-27-99
	03	60S DN	X				YZ	9-27-99
	04	60S UP	X				YZ	9-27-99
	05	70L DN	X				YZ	9-27-99
	06	70L UP	X				YZ	9-27-99
	07	0	X				YZ	9-27-99
	08	0	X				YZ	9-27-99
W7-PRP-35-52	01	45S CCW	X				YZ	9-27-99
	02	45S CW	X				YZ	9-27-99
	03	60S CCW	X				YZ	9-27-99
	04	60S CW	X				YZ	9-27-99
	05	70L CCW	X				YZ	9-27-99

SIGNATURE: Yingda Zhu LEVEL: III DATE: 9/27/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W7

WELD TYPE: UPPER LONG SEAM AT 247°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W7-PRP-35-52	06	70L CW	X				YZ 9-27-99
	07	0	X				YZ 9-27-99
	08	0	X				YZ 9-27-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/27/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W7
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W7-PRP-35-52

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	235.20	35.25
TOP RIGHT	:	258.80	35.25
BOTTOM LEFT	:	235.20	52.00
BOTTOM RIGHT	:	258.80	52.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	35.25	235.20
:	52.00	258.80
:	35.25	258.80
:	52.00	235.20

Increment Size (in) = 0.50
Number of Indexes Specified = 35
Number of Indexes Completed = 35
Scan Area - Original Techniques (sq in) = 615.8
Scan Area - This Scan (sq in) = 615.8
Scan Area - Completed (sq in) = 615.8

	Time	Date
Scan Started	15:21:13	09/27/99
Scan Completed	15:26:17	09/27/99

Robot Operator Signature Gary P. Kistler DATE 09/27/99

UT Operator Signature Fred S. Hulbert DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W7
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN

Scan Data File Name = W7-PAR-49-61

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	276.00	49.50
TOP RIGHT	:	288.00	49.50
BOTTOM LEFT	:	276.00	61.75
BOTTOM RIGHT	:	288.00	61.75

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	276.00	49.50
:	288.00	61.75
:	276.00	61.75
:	288.00	49.50

Increment Size (in) = 0.50
Number of Indexes Specified = 37
Number of Indexes Completed = 37
Scan Area - Original Techniques (sq in) = 226.6
Scan Area - This Scan (sq in) = 226.6
Scan Area - Completed (sq in) = 226.6

	Time	Date
Scan Started	15:33:45	09/27/99
Scan Completed	15:37:08	09/27/99

Robot Operator Signature [signature] DATE 09/27/99

UT Operator Signature [signature] DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W7
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN

Scan Data File Name = W7-PAR-109-115

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	241.75	109.00
TOP RIGHT	:	252.25	109.00
BOTTOM LEFT	:	241.75	115.00
BOTTOM RIGHT	:	252.25	115.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	241.75	109.00
:	252.25	115.00
:	241.75	115.00
:	252.25	109.00

Increment Size (in) = 0.50
Number of Indexes Specified = 33
Number of Indexes Completed = 33
Scan Area - Original Techniques (sq in) = 99.0
Scan Area - This Scan (sq in) = 99.0
Scan Area - Completed (sq in) = 99.0

	Time	Date
Scan Started	15:52:10	09/27/99
Scan Completed	15:54:33	09/27/99

Robot Operator Signature Gary P. Kittle DATE 09/27/99

UT Operator Signature Fred S. Halbach DATE 9/27/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W8 DESCRIPTION Intermediate Long Seam at 60°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
[ ]	[ ]	[X]

NO. OF INDICATIONS 2
STATUS Acceptable

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[X] ASSESSMENT SHEET
[X] ACQUISITION LOG	[X] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS UP / DN

PERP. SCANS CW / CCW

ITEM / AREA Intermediate Long Seam at 60°

WELD NO. 8

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	100	100	100	100	100				
DOWN (OUT)	100	100	100	100	100	100				
BORE AXIAL										

ANALYST

WesDyne International

INDICATION ASSESSEMENT

PLANT: INDIAN POINT UNIT: 3

ANALYST: SA Saler LEVEL: III DATE: 9-25-99

FILE / BUFFER	DISK	WELD NO.	INDICATION NO.	BEAM ANGLE	BEAM DIRECTION	CLASSIFICATION VOLUMETRIC / PLANAR	APPLICABLE "t"	FLAW DEPTH MIN / MAX	LENGTH (L)	SURF. / SUB.	S. DIM.	Y VALUE (S / a)	2a DIM. / a DIM.	a / L VALUE (0.50 MAX)	a / t%	ALLOWABLE a / t%	P MAX AMP (% DAC)	E X (SWP#)	A YB	K ZB	NOTES
W8-PRP								0.98					0.5				49%	57			
134-230-04		W8	1	60	CW	P	9.00	1.48	.5"	SUB	0.76	1	0.25	.5	2.8	7.6	39	160.8	63.6	1.25	1
W8-PRP								0.92					0.24				26	53			1
134-230-06		W8	2	70	CW	P	9.00	1.15	1.0"	SUB	0.7	1	0.12	0.12	1.3	2.5	21	161.2	63.5	0.98	2

NOTES
(1) Allowable per ASME 1983, IWB 3510-1, Summer 83 Edition.
(2) Same as indiciation 1.

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W8-PAR-144-219	W8	55.5	144.25		FH	II	9-25-99	
W8-PRP-134-230	W8	134	50.5		FH	II	9-25-99	
W8-PRP-134-230A	W8	223	50.5		FH	II	9-25-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W8

WELD TYPE: INTERMEDIATE LONG SEAM @ 60°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W8-PAR-144-219	01	45 DN	X				SAS 9-25-99
	02	45 UP	X				SAS 9-25-99
	03	60 DN	X				SAS 9-25-99
	04	60 UP	X				SAS 9-25-99
	05	70 DN	X				SAS 9-25-99
	06	70 UP	X				SAS 9-25-99
	07	0	X				SAS 9-25-99
W8-PRP-134-230	01	45 CCW	X				SAS 9-25-99
	02	45 CW	X				SAS 9-25-99
	03	60 CCW	X				SAS 9-25-99
	04	60 CW			X	REFERENCE INDICATION ASSESSMENT SHEET INDICATION 1	SAS 9-25-99
	05	70 CCW	X				SAS 9-25-99
	06	70 CW			X	REFERENCE INDICATION ASSESSMENT SHEET INDICATION 2	SAS 9-25-99
	07	0	X				SAS 9-25-99

SIGNATURE: [signature] LEVEL: III DATE: 9-25-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W8

WELD TYPE: INTERMEDIATE LONG SEAM @ 60°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W8-PRP-134-230A	01	45 CCW	X				SAS 9-25-99
	02	45 CW	X				SAS 9-25-99
	03	60 CCW	X				SAS 9-25-99
	04	60 CW	X				SAS 9-25-99
	05	70 CCW	X				SAS 9-25-99
	06	70 CW	X				SAS 9-25-99
	07	0	X				SAS 9-25-99

SIGNATURE: SA Sch

LEVEL: III

DATE: 9-25-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W8
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN
Scan Data File Name = W8-PAR-144-219

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	55.50	144.25
TOP RIGHT	:	64.50	144.25
BOTTOM LEFT	:	55.50	219.50
BOTTOM RIGHT	:	64.50	219.50

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	55.50	144.25
TOP RIGHT	:	64.50	219.50
BOTTOM LEFT	:	55.50	219.50
BOTTOM RIGHT	:	64.50	144.25

Increment Size (in) = 0.50
Number of Indexes Specified = 29
Number of Indexes Completed = 29
Scan Area - Original Techniques (sq in) = 1091.1
Scan Area - This Scan (sq in) = 1091.1
Scan Area - Completed (sq in) = 1091.1

	Time	Date
Scan Started	15:37:35	09/25/99
Scan Completed	15:45:45	09/25/99

Robot Operator Signature Gary P. Kistler DATE 9/25/99

UT Operator Signature Fred Stalbolt DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W8
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W8-PRP-134-230
W8-PRP-134-230a

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	50.50	134.00
TOP RIGHT	:	69.50	134.00
BOTTOM LEFT	:	50.50	234.00
BOTTOM RIGHT	:	69.50	234.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	134.00	50.50
TOP RIGHT	:	230.00	69.50
BOTTOM LEFT	:	134.00	69.50
BOTTOM RIGHT	:	230.00	50.50

Increment Size (in) = 0.50
Number of Indexes Specified = 193
Number of Indexes Completed = 193
Scan Area - Original Techniques (sq in) = 2882.3
Scan Area - This Scan (sq in) = 2767.6
Scan Area - Completed (sq in) = 2767.6

	Time	Date
Scan Started	16:05:32	09/25/99
Scan Completed	16:38:27	09/25/99

Robot Operator Signature Gary P. Kistler DATE 9/25/99

UT Operator Signature Fred S. Hulbert DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W9 DESCRIPTION Intermediate Long Seam at 180°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
[ ]	[ ]	[X]

NO. OF INDICATIONS 3
STATUS Acceptable

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[X] ASSESSMENT SHEET
[X] ACQUISITION LOG	[X] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS UP / DN
PERP. SCANS CW / CCW

ITEM / AREA Intermediate Long Seam at 180°

WELD NO. 9

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	100	100	100	100	100				
DOWN (OUT)	100	100	100	100	100	100				
BORE AXIAL										

ANALYST

WesDyne International

INDICATION ASSESSEMENT

PLANT: INDIAN POINT UNIT: 3

ANALYST: St Sch LEVEL: III DATE: 9-25-99

FILE / BUFFER	DISK	WELD NO.	INDICATION NO.	BEAM ANGLE	BEAM DIRECTION	CLASSIFICATION VOLUMETRIC / PLANAR	APPLICABLE "t"	FLAW DEPTH MIN / MAX	LENGTH (L)	SURF. / SUB.	S. DIM.	Y VALUE (S / a)	2a DIM. / a DIM.	a / L VALUE (0.50 MAX)	a / t%	ALLOWABLE a / t%	P MAX AMP (% DAC)	E X (SWP#)	A YB	K ZB	NOTES
W9-PRP-134								0.73					0.17				30	60			
230-05		W9	1	70	CCW	P	9.00	0.9	.5"	SUB	0.51	1	0.09	.18	1	2.9	24	164.7	181°	0.82	1
W9-PRP-134								0.85					0.24				63	84			
230-05		W9	2	70	CCW	P	9.00	1.09	.5"	SUB	0.63	1	0.12	0.24	1.3	3.3	50	176.7	180.3°	0.98	1
W9-PRP-134								0.73					0.21				49	171			
230-05		W9	3	70	CCW	P	9.00	0.95	1.0"	SUB	0.51	1	0.11	0.11	1.2	2.5	39	220.2	179.3°	0.81	1

NOTES (1) Allowable per ASME 1983, IWB 3510-1, Summer 83 Edition.

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W9-PRP-134-230	W9	134	170.5		FH	II	9-25-99	
W9-PAR-144-219	W9	175.5	144.25		MF	II	9-25-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT	OPTICAL DISK #
INDIAN POINT #3	IP3-2

WELD #	WELD TYPE:
W9	INTERMEDIATE LONG SEAM @ 180°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W9-PRP-134-230	01	45 CCW	X				SAS 9-25-99
	02	45 CW	X				SAS 9-25-99
	03	60 CCW	X				SAS 9-25-99
	04	60 CW	X				SAS 9-25-99
	05	70 CCW			X	REFERENCE INDICATION ASSESSMENT SHEET INDICATION 1,2 & 3	SAS 9-25-99
	06	70 CW	X				SAS 9-25-99
	07	0	X				SAS 9-25-99
W9-PAR-144-219	01	45 DN	X				SAS 9-25-99
	02	45 UP	X				SAS 9-25-99
	03	60 DN	X				SAS 9-25-99
	04	60 UP	X				SAS 9-25-99
	05	70 DN	X				SAS 9-25-99
	06	70 UP	X				SAS 9-25-99
	07	0	X				SAS 9-25-99

SIGNATURE SA Sahr LEVEL III DATE 9-25-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W9
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
W9 PRP 134/230

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	170.50	134.00
TOP RIGHT	:	189.50	134.00
BOTTOM LEFT	:	170.50	234.00
BOTTOM RIGHT	:	189.50	234.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	134.00	170.50
TOP RIGHT	:	230.00	189.50
BOTTOM LEFT	:	134.00	189.50
BOTTOM RIGHT	:	230.00	170.50

Increment Size (in)	=	0.50
Number of Indexes Specified	=	193
Number of Indexes Completed	=	193
Scan Area - Original Techniques (sq in)	=	2882.3
Scan Area - This Scan (sq in)	=	2767.6
Scan Area - Completed (sq in)	=	2767.6

	Time	Date
Scan Started	17:33:00	09/25/99
Scan Completed	18:01:01	09/25/99

Robot Operator Signature Ben Finington DATE 9/25/99

UT Operator Signature [illegible] DATE 9-25-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W9
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN
Scan Data File Name = W9-PAR-144-219

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	175.50	144.25
TOP RIGHT	:	184.50	144.25
BOTTOM LEFT	:	175.50	219.50
BOTTOM RIGHT	:	184.50	219.50

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	175.50	144.25
TOP RIGHT	:	184.50	219.50
BOTTOM LEFT	:	175.50	219.50
BOTTOM RIGHT	:	184.50	144.25

Increment Size (in) = 0.50
Number of Indexes Specified = 29
Number of Indexes Completed = 29
Scan Area - Original Techniques (sq in) = 1091.1
Scan Area - This Scan (sq in) = 1091.1
Scan Area - Completed (sq in) = 1091.1

	Time	Date
Scan Started	18:13:32	09/25/99
Scan Completed	18:22:21	09/25/99

Robot Operator Signature Ben Turrington DATE 9/25/99

UT Operator Signature [illegible] DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W10 DESCRIPTION Intermediate Long Seam at 300°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
[ ]	[ ]	[X]

NO. OF INDICATIONS 1

STATUS Acceptable

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[X] ASSESSMENT SHEET
[X] ACQUISITION LOG	[X] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS UP / DN

PERP. SCANS CW / CCW

ITEM / AREA Intermediate Long Seam at 300°

WELD NO. 10

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	100	100	100	100	100				
DOWN (OUT)	100	100	100	100	100	100				
BORE AXIAL										

ANALYST

WesDyne International

INDICATION ASSESSEMENT

PLANT: INDIAN POINT UNIT: 3

ANALYST: [signature] LEVEL: III DATE: 9-25-99

FILE / BUFFER	DISK	WELD NO.	INDICATION NO.	BEAM ANGLE	BEAM DIRECTION	CLASSIFICATION VOLUMETRIC / PLANAR	APPLICABLE "t"	FLAW DEPTH MIN / MAX	LENGTH (L)	SURF. / SUB.	S. DIM.	Y VALUE (S / a)	2a DIM. / a DIM.	a / L VALUE (0.50 MAX)	a / t%	ALLOWABLE a / t%	P MAX AMP (% DAC)	E X (SWP#)	A YB	K ZB	NOTES
W10-PRP								8.24					0.18					226.7			
134-230A		W10	1	45	CW	V	9.00	8.42	.5"	SUB	0.6	1	0.09	.18	1	3.3	68	9	302	0.82	1

NOTES (1) Allowable per ASME 1983, IWB 3510-1, Summer 83 Edition.

Indication originally seen in 1987 and investigated at that time. No change from previous disposition.

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W10-PRP-134-230	W10	134	290		FH	II	9-25-99	
W10-PRP-134-230A	W10	224	290		FH	II	9-25-99	
W10-PAR-144-219	W10	295.5	144.25		FH	II	9-25-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W10

WELD TYPE: INTERMEDIATE LONG SEAM @ 300°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W10-PRP-134-230	01	45 CCW		X			DK 9-25-99
	02	45 CW		X			DK 9-25-99
	03	60 CCW	X				DK 9-25-99
	04	60 CW	X				DK 9-25-99
	05	70 CCW	X				DK 9-25-99
	06	70 CW	X				DK 9-25-99
	07	0	X				DK 9-25-99
W10-PRP-134-230A	01	45 CCW		X			DK 9-25-99
	02	45 CW			X	REFERENCE INDICATION ASSESSMENT SHEET INDICATION 1	DK 9-25-99
	03	60 CCW	X				DK 9-25-99
	04	60 CW		X			DK 9-25-99
	05	70 CCW	X				DK 9-25-99
	06	70 CW	X				DK 9-25-99
	07	0		X			DK 9-25-99

SIGNATURE [signature] LEVEL III DATE 9-25

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W10

WELD TYPE: INTERMEDIATE LONG SEAM @ 300°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W10-PAR-144-219	01	45 DN	X				SAS 9-25-99
	02	45 UP	X				SAS 9-25-99
	03	60 DN	X				SAS 9-25-99
	04	60 UP	X				SAS 9-25-99
	05	70 DN	X				SAS 9-25-99
	06	70 UP	X				SAS 9-25-99
	07	0	X				SAS 9-25-99

SIGNATURE: SA Sabo

LEVEL: III

DATE: 9-25-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W10
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W10-PRP-134-230

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	290.50	134.00
TOP RIGHT	:	309.50	134.00
BOTTOM LEFT	:	290.50	234.00
BOTTOM RIGHT	:	309.50	234.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	134.00	290.50
TOP RIGHT	:	230.00	309.50
BOTTOM LEFT	:	134.00	309.50
BOTTOM RIGHT	:	230.00	290.50

Increment Size (in) = 0.50
Number of Indexes Specified = 193
Number of Indexes Completed = 193
Scan Area - Original Techniques (sq in) = 2882.3
Scan Area - This Scan (sq in) = 2767.6
Scan Area - Completed (sq in) = 2767.6

	Time	Date
Scan Started	14:23:00	09/25/99
Scan Completed	14:54:49	09/25/99

Robot Operator Signature Gary P. Kistler DATE 9/25/99

UT Operator Signature Fred D. Halbert DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W10
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN
Scan Data File Name = W10-PAR-144-219

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	295.50	144.25
TOP RIGHT	:	304.50	144.25
BOTTOM LEFT	:	295.50	219.50
BOTTOM RIGHT	:	304.50	219.50

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	295.50	144.25
TOP RIGHT	:	304.50	219.50
BOTTOM LEFT	:	295.50	219.50
BOTTOM RIGHT	:	304.50	144.25

Increment Size (in) = 0.50
Number of Indexes Specified = 29
Number of Indexes Completed = 29
Scan Area - Original Techniques (sq in) = 1091.1
Scan Area - This Scan (sq in) = 1091.1
Scan Area - Completed (sq in) = 1091.1

	Time	Date
Scan Started	15:20:22	09/25/99
Scan Completed	15:29:09	09/25/99

Robot Operator Signature Gary P. Kistler DATE 9/25/99

UT Operator Signature Fred S. McDaff DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W11 DESCRIPTION Lower Long Seam at 97°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
[ ]	[ ]	[X]

NO. OF INDICATIONS 1
STATUS Acceptable

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[X] ASSESSMENT SHEET
[X] ACQUISITION LOG	[X] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS UP / DN

PERP. SCANS CW / CCW

ITEM / AREA Lower Long Seam at 97°

WELD NO. 11

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	100	100	100	100	100				
DOWN (OUT)	100	100	100	100	100	100				
BORE AXIAL										

ANALYST

WesDyne International

INDICATION ASSESSEMENT

PLANT: INDIAN POINT UNIT: 3

ANALYST: [signature] LEVEL: III DATE: 9-24-99

FILE / BUFFER	DISK	WELD NO.	INDICATION NO.	BEAM ANGLE	BEAM DIRECTION	CLASSIFICATION VOLUMETRIC / PLANAR	APPLICABLE "t"	FLAW DEPTH MIN / MAX	LENGTH (L)	SURF. / SUB.	S. DIM.	Y VALUE (S / a)	2a DIM. / a DIM.	a / L VALUE (0.50 MAX)	a / t%	ALLOWABLE a / t%	P MAX AMP (% DAC)	E X (SWP#)	A YB	K ZB	NOTES
W11-PAR-								6.47					0.14				59%	20			
253-327-01		W11	1	45	DN	P	9.00	6.61	0.5"	SUB	2.73	1	0.07	.14	0.7	2.5	47	97.7	288"	6.5	1

NOTES (1) Allowable per ASME 1983 Summer 83 Edition, IWB 3510-1 .

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W11-PRP-242-335A	W11	242	87.5		FH	II	9-24-99	
W11-PRP-242-335B	W11	258.01	87.5		FH	II	9-24-99	
W11-PRP-242-335C	W11	323.5	87.5		FH	II	9-24-99	
W11-PAR-253-327	W11	92.5	253.5		FH	II	9-24-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W11

WELD TYPE: LOWER SHELL LONG SEAM @ 97°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W11-PRP-242-335A	01	45 CCW	X				DK 9-24-99
	02	45 CW	X				DK 9-24-99
	03	60 CCW	X				DK 9-24-99
	04	60 CW	X				DK 9-24-99
	05	70 CCW	X				DK 9-24-99
	06	70 CW	X				DK 9-24-99
	07	0	X				DK 9-24-99
W11-PRP-242-335B	01	45 CCW		X			DK 9-24-99
	02	45 CW	X				DK 9-24-99
	03	60 CCW	X				DK 9-24-99
	04	60 CW	X				DK 9-24-99
	05	70 CCW	X				DK 9-24-99
	06	70 CW	X				DK 9-24-99
	07	0	X				DK 9-24-99

SIGNATURE [signature] LEVEL III DATE 9-24-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W11

WELD TYPE: LOWER SHELL LONG SEAM @ 97°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W11-PRP-242-335C	01	45 CCW	X				SAS 9-24-99
	02	45 CW	X				SAS 9-24-99
	03	60 CCW	X				SAS 9-24-99
	04	60 CW	X				SAS 9-24-99
	05	70 CCW		X			SAS 9-24-99
	06	70 CW		X			SAS 9-24-99
	07	0	X				SAS 9-24-99
W11-PAR-253-327	01	45 DN			X	REFERENCE INDICATION ASSESSMENT SHEET INDICATION 1	SAS 9-24-99
	02	45 UP	X				SAS 9-24-99
	03	60 DN	X				SAS 9-24-99
	04	60 UP	X				SAS 9-24-99
	05	70 DN		X			SAS 9-24-99
	06	70 UP		X			SAS 9-24-99
	07	0	X				SAS 9-24-99

SIGNATURE: SA Sch

LEVEL: III

DATE: 9-24-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W11
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W11-PRP-242-335aaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	87.50	242.00
TOP RIGHT	:	106.50	242.00
BOTTOM LEFT	:	87.50	335.50
BOTTOM RIGHT	:	106.50	335.50

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	242.00	87.50
:	335.50	87.50
:	242.00	105.00
:	335.50	105.00

Increment Size (in)	=	0.50
Number of Indexes Specified	=	188
Number of Indexes Completed	=	188
Scan Area - Original Techniques (sq in)	=	2695.9
Scan Area - This Scan (sq in)	=	2483.5
Scan Area - Completed (sq in)	=	2483.5

	Time	Date
Scan Started	15:39:01	09/24/99
Scan Completed	16:19:25	09/24/99

Robot Operator Signature Gary P. Kistler DATE 9/24/99

UT Operator Signature Fred [illegible] DATE 9/24/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W~~12~~ 11 75H 9/24/99
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W11PRP 242335A, B, C

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	87.50	242.00
TOP RIGHT	:	106.50	242.00
BOTTOM LEFT	:	87.50	335.50
BOTTOM RIGHT	:	106.50	335.50

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	242.00	87.50
TOP RIGHT	:	242.00	105.00
BOTTOM LEFT	:	242.00	105.00
BOTTOM RIGHT	:	242.00	87.50

Increment Size (in)	=	0.50
Number of Indexes Specified	=	188
Number of Indexes Completed	=	158
Scan Area - Original Techniques (sq in)	=	2695.9
Scan Area - This Scan (sq in)	=	2483.5
Scan Area - Completed (sq in)	=	2087.2

	Time	Date
Scan Started	15:48:47	09/24/99
Scan Completed	16:19:25	09/24/99

Robot Operator Signature Gary P. Kistler DATE 9/24/99

UT Operator Signature Fred D. Hulett DATE 9/24/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W11
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN
Scan Data File Name = W11-PAR-253-327

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	92.50	253.50
TOP RIGHT	:	101.50	253.50
BOTTOM LEFT	:	92.50	327.00
BOTTOM RIGHT	:	101.50	327.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	92.50	253.50
TOP RIGHT	:	101.50	327.00
BOTTOM LEFT	:	92.50	327.00
BOTTOM RIGHT	:	101.50	253.50

TOP LEFT	:	92.50	253.50
TOP RIGHT	:	101.50	327.00
BOTTOM LEFT	:	92.50	327.00
BOTTOM RIGHT	:	101.50	253.50

Increment Size (in) = 0.50
Number of Indexes Specified = 29
Number of Indexes Completed = 29
Scan Area - Original Techniques (sq in) = 1065.8
Scan Area - This Scan (sq in) = 1065.8
Scan Area - Completed (sq in) = 1065.8

	Time	Date
Scan Started	16:41:14	09/24/99
Scan Completed	16:53:10	09/24/99

Robot Operator Signature Gary P. Kutter DATE 09/24/99

UT Operator Signature Fred S. Hulbert DATE 9/25/99

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W12 DESCRIPTION Lower Long Seam at 217°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS UP / DN

PERP. SCANS CW / CCW

ITEM / AREA Lower Long Seam at 217°

WELD NO. 12

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	100	100	100	100	100				
DOWN (OUT)	100	100	100	100	100	100				
BORE AXIAL										

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W12-PRP-242-335	W12	242	207.5		MF	II	9-24-99	
W12-PAR-253-327	W12	212.5	253.5		MF	II	9-24-99	

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ANALYSIS LOG

PLANT / UNIT	OPTICAL DISK #
INDIAN POINT #3	IP3-2

WELD #	WELD TYPE:
W12	LOWER SHELL LONG SEAM @ 217°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W12-PRP-242-335	01	45 CCW	X				SAS 9-25-99
	02	45 CW	X				SAS 9-25-99
	03	60 CCW	X				SAS 9-25-99
	04	60 CW	X				SAS 9-25-99
	05	70 CCW	X				SAS 9-25-99
	06	70 CW	X				SAS 9-25-99
	07	0	X				SAS 9-25-99
W12-PAR-253-327	01	45 DN	X				SAS 9-25-99
	02	45 UP	X				SAS 9-25-99
	03	60 DN	X				SAS 9-25-99
	04	60 UP	X				SAS 9-25-99
	05	70 DN	X				SAS 9-25-99
	06	70 UP	X				SAS 9-25-99
	07	0	X				SAS 9-25-99

SIGNATURE S7 Sk LEVEL III DATE 9-25-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W12
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W12-PRP-242-335

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	207.50	242.00
TOP RIGHT	:	226.50	242.00
BOTTOM LEFT	:	207.50	335.50
BOTTOM RIGHT	:	226.50	335.50

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	242.00	207.50
:	335.50	207.50
:	242.00	226.50
:	335.50	226.50

Increment Size (in) = 0.50
Number of Indexes Specified = 188
Number of Indexes Completed = 188
Scan Area - Original Techniques (sq in) = 2695.9
Scan Area - This Scan (sq in) = 2695.9
Scan Area - Completed (sq in) = 2695.9

	Time	Date
Scan Started	20:03:14	09/24/99
Scan Completed	20:43:02	09/24/99

Robot Operator Signature Ben Jurrington DATE 9/24/99

UT Operator Signature Michael R Stein DATE 9-24-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W12
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN
Scan Data File Name = W12-PAR-253-327

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	212.50	253.50
TOP RIGHT	:	221.50	253.50
BOTTOM LEFT	:	212.50	327.00
BOTTOM RIGHT	:	221.50	327.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	212.50	253.50
TOP RIGHT	:	221.50	327.00
BOTTOM LEFT	:	212.50	327.00
BOTTOM RIGHT	:	221.50	253.50

Increment Size (in) = 0.50
Number of Indexes Specified = 29
Number of Indexes Completed = 29
Scan Area - Original Techniques (sq in) = 1065.8
Scan Area - This Scan (sq in) = 1065.8
Scan Area - Completed (sq in) = 1065.8

	Time	Date
Scan Started	21:05:58	09/24/99
Scan Completed	21:17:40	09/24/99

Robot Operator Signature Ben Livingston DATE 9/24/99

UT Operator Signature Michael St Stein DATE 9-24-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W13 DESCRIPTION Lower Long Seam at 337°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
[ ]	[ ]	[X]

NO. OF INDICATIONS 1
STATUS Acceptable

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[X] ASSESSMENT SHEET
[X] ACQUISITION LOG	[X] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS UP / DN

PERP. SCANS CW / CCW

ITEM / AREA Lower Long Seam at 337°

WELD NO. 13

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100	100	100		
CW	100	100	100	100	100	100				
UP (IN)	100	100	100	100	100	100				
DOWN (OUT)	100	100	100	100	100	100				
BORE AXIAL										

ANALYST

WesDyne
International

INDICATION ASSESSEMENT

PLANT: INDIAN POINT UNIT: 3

ANALYST: St Sale LEVEL: III DATE: 9-24-99

FILE / BUFFER	DISK	WELD NO.	INDICATION NO.	BEAM ANGLE	BEAM DIRECTION	CLASSIFICATION VOLUMETRIC / PLANAR	APPLICABLE "t"	FLAW DEPTH MIN / MAX	LENGTH (L)	SURF. / SUB.	S. DIM.	Y VALUE (S / a)	2a DIM. / a DIM.	a / L VALUE (0.50 MAX)	a / t%	ALLOWABLE a / t%	P MAX AMP (% DAC)	E X (SWP#)	A YB	K ZB	NOTES
W13-PRP-								1.15					0.17				60%	25			
242-335A-05		W13	1	70	CCW	P	9.00	1.33	1.0"	SUB	0.93	1	0.09	.09	1	2.2	54	277.2	343.1	1.25	1

NOTES (1) Allowable per ASME 1983 Summer 83 Edition, IWB 3510-1 .

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W13-PAR-242-327	W13	332.5	253.5		FH	II	9-24-99	
W13-PRP-242-335	W13	242	327.5		MF	II	9-24-99	
W13-PRP-242-335A	W13	264	327.5		MF	II	9-24-99	
W13-PRP-242-335B	W13	324	327.5		MF	II	9-24-99	

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ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W13

WELD TYPE: LOWER SHELL LONG SEAM @ 337°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W13-PAR-242-327	01	45 DN	X				SAS 9-24-99
	02	45 UP	X				SAS 9-24-99
	03	60 DN	X				SAS 9-24-99
	04	60 UP	X				SAS 9-24-99
	05	70 DN	X				SAS 9-24-99
	06	70 UP	X				SAS 9-24-99
	07	0	X				SAS 9-24-99
W13-PRP-242-335	01	45 CCW	X				SAS 9-24-99
	02	45 CW	X				SAS 9-24-99
	03	60 CCW	X				SAS 9-24-99
	04	60 CW	X				SAS 9-24-99
	05	70 CCW	X				SAS 9-24-99
	06	70 CW	X				SAS 9-24-99
	07	0	X				SAS 9-24-99

SIGNATURE: SA Sel

LEVEL: III

DATE: 9-24-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W13

WELD TYPE: LOWER SHELL LONG SEAM @ 337°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W13-PRP-242-335A	01	45 CCW	X				SAS 9-25-99
	02	45 CW	X				SAS 9-25-99
	03	60 CCW	X				SAS 9-25-99
	04	60 CW	X				SAS 9-25-99
	05	70 CCW			X	REFERENCE INDICATION ASSESSMENT SHEET INDICATION 1	SAS 9-25-99
	06	70 CW		X			SAS 9-25-99
	07	0	X				SAS 9-25-99
W13-PRP-242-335B	01	45 CCW	X				SAS 9-25-99
	02	45 CW		X			SAS 9-25-99
	03	60 CCW	X				SAS 9-25-99
	04	60 CW	X				SAS 9-25-99
	05	70 CCW	X				SAS 9-25-99
	06	70 CW	X				SAS 9-25-99
	07	0	X				SAS 9-25-99

SIGNATURE: SA Sch

LEVEL: III

DATE: 9-25-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W24~~ 13 9/24/99
Weld and Scan Type = SHELL LONGITUDINAL PARALLEL SCAN
Scan Data File Name = W13-PAR-242-327

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	332.50	253.50
TOP RIGHT	:	341.50	253.50
BOTTOM LEFT	:	332.50	327.00
BOTTOM RIGHT	:	341.50	327.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	332.50	253.50
TOP RIGHT	:	341.50	327.00
BOTTOM LEFT	:	332.50	327.00
BOTTOM RIGHT	:	341.50	253.50

TOP LEFT	:	332.50	253.50
TOP RIGHT	:	341.50	327.00
BOTTOM LEFT	:	332.50	327.00
BOTTOM RIGHT	:	341.50	253.50

Increment Size (in) = 0.50
Number of Indexes Specified = 29
Number of Indexes Completed = 29
Scan Area - Original Techniques (sq in) = 1065.8
Scan Area - This Scan (sq in) = 1065.8
Scan Area - Completed (sq in) = 1065.8

	Time	Date
Scan Started	17:18:03	09/24/99
Scan Completed	17:29:36	09/24/99

Robot Operator Signature [signature] DATE 9/24/99

UT Operator Signature [signature] DATE 9/24/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W13
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
Scan Data File Name = W13-PRP-242-335

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	327.50	242.00
TOP RIGHT	:	346.50	242.00
BOTTOM LEFT	:	327.50	335.50
BOTTOM RIGHT	:	346.50	335.50

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	242.00	327.50
TOP RIGHT	:	335.50	327.50
BOTTOM LEFT	:	242.00	346.50
BOTTOM RIGHT	:	335.50	346.50

TOP LEFT	:	242.00	327.50
TOP RIGHT	:	335.50	327.50
BOTTOM LEFT	:	242.00	346.50
BOTTOM RIGHT	:	335.50	346.50

Increment Size (in) = 0.50
Number of Indexes Specified = 188
Number of Indexes Completed = 188
Scan Area - Original Techniques (sq in) = 2695.9
Scan Area - This Scan (sq in) = 2695.9
Scan Area - Completed (sq in) = 2695.9

	Time	Date
Scan Started	18:23:46	09/24/99
Scan Completed	19:11:54	09/24/99

Robot Operator Signature Kevin A. Carr DATE 9/24/99

UT Operator Signature Michael R. Stair DATE 9-24-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W14~~ W13 mFF
Weld and Scan Type = SHELL LONGITUDINAL WELD SCANNED IN THE
W13PRP242335, 335A, 335B

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	ELEVATION (IN)
TOP LEFT	:	327.50	242.00
TOP RIGHT	:	346.50	242.00
BOTTOM LEFT	:	327.50	335.50
BOTTOM RIGHT	:	346.50	335.50

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	242.00	327.50
TOP RIGHT	:	335.50	327.50
BOTTOM LEFT	:	242.00	346.50
BOTTOM RIGHT	:	335.50	346.50

TOP LEFT	:	242.00	327.50
TOP RIGHT	:	335.50	327.50
BOTTOM LEFT	:	242.00	346.50
BOTTOM RIGHT	:	335.50	346.50

Increment Size (in)	=	0.50
Number of Indexes Specified	=	188
Number of Indexes Completed	=	188
Scan Area - Original Techniques (sq in)	=	2695.9
Scan Area - This Scan (sq in)	=	2695.9
Scan Area - Completed (sq in)	=	2695.9

	Time	Date
Scan Started	18:23:46	09/24/99
Scan Completed	19:11:54	09/24/99

Robot Operator Signature Kevin A. Carr DATE 9/24/99

UT Operator Signature [illegible] DATE 9-24-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W16 DESCRIPTION Meridional weld at 150°

LIMITATIONS NO [ ] YES [X] **Minor limitation from penetrations 38 & 56 See Coverage breakdown**

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0
STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

WesDyne International

Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. 16 DESCRIPTION Meridional (Lower Head Peel)

LIMITATIONS NO ☐ YES ☑ MINOR LIMITATION FROM PENETRATIONS 38, 56 SEE COVERAGE BREAKDOWN.

RESULTS NI ☑ NRI ☐ RI ☐

NO. OF INDICATIONS ____

STATUS ____

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
☑ UDRPS ANALYSIS LOG	☐ ASSESSMENT SHEET
☑ UDRPS ACQUISITION LOG	☐ UDRPS HARD COPY
☑ SCAN PRINTOUT	☐ OTHER (specify)
☑ COVERAGE BREAKDOWN	____

WESDYNE ANALYST ____

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS UP / DN

PERP. SCANS CW / CCW

ITEM / AREA Meridional Weld at 150°

WELD NO. 16

BEAM ANGLES

BEAM DIRECTION	45°		60°		70°		0°			
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100	100	100	100	100				
CW	100	(1)	90	(1)	100	100				
UP (IN)	100	100	100	100	100	100	100	100		
DOWN (OUT)	100	100	100	100	100	100				
BORE AXIAL										

(1) HAZ Examined in CCW direction Completely by 45° & 60° beams.

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W16-MER-PRP-150A	W16	347.72	144.50	IP3-2	MF	II	9-22-99	
W16-MER-PRP-150B	W16	377.32	146.26	IP3-2	MF	II	9-23-99	
W16-MER-PRP-150C	W16	387.29	142.10	IP3-2	MF	II	9-23-99	
W16-MER-PAR-150A	W16	146.77	351.38	IP3-2	MF	II	9-23-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT	OPTICAL DISK #
INDIAN POINT #3	IP3-2

WELD #	WELD TYPE:
W16	MERIDIONAL

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W16-MER-PRP-150A	01	45 DN	X				SAS 9-22-99
	02	45 UP	X				SAS 9-22-99
	03	60 DN	X				SAS 9-22-99
	04	60 UP	X				SAS 9-22-99
	05	70 DN	X				SAS 9-22-99
	06	70 UP	X				SAS 9-22-99
	07	0	X				SAS 9-22-99
	08	0	X				SAS 9-22-99
W16-MER-PRP-150B	01	45 DN	X				SAS 9-22-99
	02	45 UP	X				SAS 9-22-99
	03	60 DN	X				SAS 9-22-99
	04	60 UP	X				SAS 9-22-99
	05	70 DN	X				SAS 9-22-99
	06	70 UP	X				SAS 9-22-99
	07	0	X				SAS 9-22-99
	08	0	X				SAS 9-22-99

SIGNATURE SA Sdr LEVEL III DATE 9-22-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #: IP3-2

WELD #: W16

WELD TYPE: MERIDIONAL

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
W16-MER-PRP-150C	01	45 DN	X				SAS 9-23-99
	02	45 UP	X				SAS 9-23-99
	03	60 DN	X				SAS 9-23-99
	04	60 UP	X				SAS 9-23-99
	05	70 DN	X				SAS 9-23-99
	06	70 UP	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
	08	0	X				SAS 9-23-99
W16-MER-PAR-150A	01	45 CCW	X				SAS 9-23-99
	02	45 CW	X				SAS 9-23-99
	03	60 CCW	X				SAS 9-23-99
	04	60 CW	X				SAS 9-23-99
	05	70 CCW	X				SAS 9-23-99
	06	70 CW	X				SAS 9-23-99
	07	0	X				SAS 9-23-99
	08	0	X				SAS 9-23-99

SIGNATURE: S A Salo

LEVEL: III

DATE: 9-23-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W17~~ W16 DF 9-29-99
Weld and Scan Type = HEAD MERIDINAL PERPENDICULAR SCAN
Scan Data File Name = W16-MER-PRP-150A

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		MERIDINAL (DEGREES)	AZIMUTH (DEGREES)
TOP LEFT	:	54.00	144.39
TOP RIGHT	:	54.00	155.61
BOTTOM LEFT	:	75.40	144.39
BOTTOM RIGHT	:	75.40	155.61

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	75.40	144.18
TOP RIGHT	:	54.00	156.99
BOTTOM LEFT	:	75.40	155.83
BOTTOM RIGHT	:	54.00	143.04

Increment Size (in) = 0.50
Number of Indexes Specified = 67
Number of Indexes Completed = 67
Scan Area - Original Techniques (sq in) = 581.4
Scan Area - This Scan (sq in) = 581.4
Scan Area - Completed (sq in) = 581.4

	Time	Date
Scan Started	23:31:36	09/22/99
Scan Completed	23:39:30	09/22/99

Robot Operator Signature Ben Livingston DATE 9/22/99

UT Operator Signature [signature] DATE 9-22-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID =
Weld and Scan Type = HEAD MERIDINAL PERPENDICULAR SCAN
Scan Data File Name = W16-MER-PRP-150B

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		MERIDINAL (DEGREES)	AZIMUTH (DEGREES)
TOP LEFT	:	45.50	147.04
TOP RIGHT	:	45.50	155.61
BOTTOM LEFT	:	54.00	147.04
BOTTOM RIGHT	:	54.00	155.61

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	54.00	146.26
:	45.50	145.74
:	54.00	156.97
:	45.50	157.90

Increment Size (in) = 0.50
Number of Indexes Specified = 28
Number of Indexes Completed = 28
Scan Area - Original Techniques (sq in) = 186.8
Scan Area - This Scan (sq in) = 186.8
Scan Area - Completed (sq in) = 186.8

	Time	Date
Scan Started	00:46:55	09/23/99
Scan Completed	00:50:18	09/23/99

Robot Operator Signature Ben R. Furrington DATE 9/23/99

UT Operator Signature Michael B. Stain DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W16
Weld and Scan Type = HEAD MERIDINAL PERPENDICULAR SCAN
Scan Data File Name = W16-MER-PRP-150Caaaaaaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		MERIDINAL (DEGREES)	AZIMUTH (DEGREES)
TOP LEFT	:	32.00	144.39
TOP RIGHT	:	32.00	155.61
BOTTOM LEFT	:	45.50	144.39
BOTTOM RIGHT	:	45.50	155.61

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	45.50	142.10
TOP RIGHT	:	32.00	154.26
BOTTOM LEFT	:	45.50	153.15
BOTTOM RIGHT	:	32.00	139.36

Increment Size (in) = 0.50
Number of Indexes Specified = 43
Number of Indexes Completed = 43
Scan Area - Original Techniques (sq in) = 374.0
Scan Area - This Scan (sq in) = 260.9
Scan Area - Completed (sq in) = 260.9

	Time	Date
Scan Started	02:22:56	09/23/99
Scan Completed	02:32:13	09/23/99

Robot Operator Signature Ben R. Furniston DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W16
Weld and Scan Type = HEAD MERIDINAL PARALLEL SCAN
Scan Data File Name = W16-MER-PAR-150a

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	MERIDINAL (DEGREES)
TOP LEFT	:	146.34	72.80
TOP RIGHT	:	153.66	72.80
BOTTOM LEFT	:	143.08	30.50
BOTTOM RIGHT	:	156.92	30.50

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	146.34	72.80
TOP RIGHT	:	153.14	30.50
BOTTOM LEFT	:	146.34	30.50
BOTTOM RIGHT	:	153.14	72.80
TOP LEFT	:	146.77	72.80
TOP RIGHT	:	153.57	30.50
BOTTOM LEFT	:	146.77	30.50
BOTTOM RIGHT	:	153.57	72.80

Increment Size (in) = 0.50
Number of Indexes Specified = 22
Number of Indexes Completed = 21
Scan Area - Original Techniques (sq in) = 748.6
Scan Area - This Scan (sq in) = 716.1
Scan Area - Completed (sq in) = 683.5

	Time	Date
Scan Started	05:12:16	09/23/99
Scan Completed	05:21:57	09/23/99

Robot Operator Signature Ben R Jurington DATE 9/23/99

UT Operator Signature [illegible] DATE 9-23-99

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W21 DESCRIPTION Inlet Nozzle to Shell at 113°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
[ ]	[X]	[ ]

NO. OF INDICATIONS 0
STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST Yingsh Zo 9/29/99

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS: Tangential

PERP. SCANS: IN (Bore)

ITEM / AREA: Inlet Nozzle to Shell at 113°

WELD NO. 21

BEAM ANGLES

BEAM DIRECTION	45°S		60°S		70°L		10°L		50°L	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		100		100		100				
CW		100		100		100				
UP (IN)							82.1	82.1	91.5	91.5
DOWN (OUT)										
BORE AXIAL										

10°L & 50°L Combined Coverage: 98.5%

ANALYST [illegible] 9/29/99

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN113-NS-IN	W21	360 - 180	88.45 - 110.8		LCH	II	9-24-99	
WN113-NS-INa	W21	180 - 0	88.45 - 110.8		LCH	II	9-24-99	
WN113-IRS-IN	IR21	88.5 - 110.8	360 - 0		LCH	II	9-24-99	
WN113-BIR-IN	IR21	87.34	360 - 0		LCH	II	9-24-99	
WN113-SE-PAR-IN	16DM	126.5 - 134.4	360 - 0		LCH	II	9-24-99	
WN113-SE-PRP-IN	16DM	360 - 180	120 - 137.2		LCH	II	9-24-99	
WN113-SE-PRP-INa	16DM	180 - 0	120 - 137.2		LCH	II	9-24-99	

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
W113-TAN-IN	W21	20.25	180		MFF	II	9-26-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W21

WELD TYPE: INLET NOZZLE TO SHELL AT 113°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN113-NS-IN	01	10L IN		X			YZ 9-24-99
	02	50L IN		X			YZ 9-24-99
WN113-NS-INa	01	10L IN		X			YZ 9-24-99
	02	50L IN		X			YZ 9-24-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/24/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W21

WELD TYPE: INLET NOZZLE TO SHELL AT 113°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN113-TAN-IN	01	45S CW	X				SAS 9-26-99
	02	45S CCW	X				SAS 9-26-99
	03	60S CW	X				SAS 9-26-99
	04	60S CCW	X				SAS 9-26-99
	05	70L CW	X				SAS 9-26-99
	06	70L CCW	X				SAS 9-26-99
	07	0	X				SAS 9-26-99

SIGNATURE: SA Sabo

LEVEL: III

DATE: 9-26-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W21
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN113-NS-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	88.45
END CCW	:	-179.90	88.45
START CW	:	179.90	110.80
END CCW	:	-179.90	110.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	0.00	88.45
TOP RIGHT	:	180.01	110.80
BOTTOM LEFT	:	0.00	110.80
BOTTOM RIGHT	:	180.01	88.45

Increment Size (in) = 0.12
Number of Indexes Specified = 721
Number of Indexes Completed = 361
Scan Area - Original Techniques (sq in) = 1949.4
Scan Area - This Scan (sq in) = 1946.7
Scan Area - Completed (sq in) = 974.7

	Time	Date
Scan Started	08:43:40	09/24/99
Scan Completed	09:46:49	09/24/99

Robot Operator Signature _____ DATE 9/24/99

UT Operator Signature Larry C. Hines DATE 9/24/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W21

Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN113-NS-INaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	88.45
END CCW	:	-179.90	88.45
START CW	:	179.90	110.80
END CCW	:	-179.90	110.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	179.01	88.45
:	360.00	110.80
:	179.01	110.80
:	360.00	88.45

Increment Size (in)	=	0.12
Number of Indexes Specified	=	721
Number of Indexes Completed	=	363
Scan Area - Original Techniques (sq in)	=	1946.7
Scan Area - This Scan (sq in)	=	1946.7
Scan Area - Completed (sq in)	=	980.1

	Time	Date
Scan Started	11:13:34	09/24/99
Scan Completed	11:57:10	09/24/99

Robot Operator Signature _____ DATE 9/24/99

UT Operator Signature _____ DATE 9-24-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = WN113
Weld and Scan Type = NOZZLE TO SHELL (TAN) PARALLEL SCAN
WN 113 TAN IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		RADIUS (IN)	AZIMUTH (DEGREES)
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	20.25	179.90
TOP RIGHT	:	35.25	-179.90
BOTTOM LEFT	:	20.25	-179.90
BOTTOM RIGHT	:	35.25	179.90

Increment Size (in) = 0.50
Number of Indexes Specified = 31
Number of Indexes Completed = 31
Scan Area - Original Techniques (sq in) = 2719.9
Scan Area - This Scan (sq in) = 2723.0
Scan Area - Completed (sq in) = 2723.0

	Time	Date
Scan Started	21:48:13	09/26/99
Scan Completed	22:11:47	09/26/99

Robot Operator Signature _____ DATE 9-26-99

UT Operator Signature _____ DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. IR21 DESCRIPTION Inlet Nozzle IR at 113°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [signature] 9/29/89

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW

PERP. SCANS

ITEM / AREA Inlet Nozzle IR at 113°

WELD NO. IR21

BEAM ANGLES

BEAM DIRECTION	70°L									
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		95								
CW		95								
UP (IN)										
DOWN (OUT)										
BORE AXIAL										

ANALYST Yingel Z 9/29/98

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN113-NS-IN	W21	360 - 180	88.45 - 110.8		LCH	II	9-24-99	
WN113-NS-INa	W21	180 - 0	88.45 - 110.8		LCH	II	9-24-99	
WN113-IRS-IN	IR21	88.5 - 110.8	360 - 0		LCH	II	9-24-99	
WN113-BIR-IN	IR21	87.34	360 - 0		LCH	II	9-24-99	
WN113-SE-PAR-IN	16DM	126.5 - 134.4	360 - 0		LCH	II	9-24-99	
WN113-SE-PRP-IN	16DM	360 - 180	120 - 137.2		LCH	II	9-24-99	
WN113-SE-PRP-INa	16DM	180 - 0	120 - 137.2		LCH	II	9-24-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: IR21

WELD TYPE: INLET NOZZLE IR AT 113°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
WN113-BIR-IN	01	70L CW	X				YZ	9-24-99
	02	70L CCW	X				YZ	9-24-99
WN113-IRS-IN	01	70L CW	X				YZ	9-24-99
	02	70L CCW	X				YZ	9-24-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/24/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~WX~~ IR 21 (9,8)
Weld and Scan Type = NOZZLE INNER RADIUS SUPLEMENTAL EXAM
Scan Data File Name = WN113-IRS-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	88.50	179.90
END CCW	:	88.50	-179.90
START CW	:	97.40	179.90
END CCW	:	97.40	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	88.50	179.90
TOP RIGHT	:	97.45	-179.90
BOTTOM LEFT	:	88.50	-179.90
BOTTOM RIGHT	:	97.45	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 31
Number of Indexes Completed = 31
Scan Area - Original Techniques (sq in) = 989.4
Scan Area - This Scan (sq in) = 989.4
Scan Area - Completed (sq in) = 989.4

	Time	Date
Scan Started	12:13:12	09/24/99
Scan Completed	12:30:05	09/24/99

Robot Operator Signature _____ DATE 9/24/99

UT Operator Signature Larry C. Hines DATE 9-24-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W21~~ IR21 (41)
Weld and Scan Type = NOZZLE INNER RADIUS TRACKING EXAM
Scan Data File Name = WN113-BIR-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	87.34
END CCW	:	-179.90	87.34
START CW	:	179.90	87.34
END CCW	:	-179.90	87.34

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	87.34	179.90
TOP RIGHT	:	87.34	-179.90
BOTTOM LEFT	:	87.34	-179.90
BOTTOM RIGHT	:	87.34	179.90

Increment Size (in)	=	0.30
Number of Indexes Specified	=	1
Number of Indexes Completed	=	1
Scan Area - Original Techniques (sq in)	=	33.6
Scan Area - This Scan (sq in)	=	33.6
Scan Area - Completed (sq in)	=	33.6

	Time	Date
Scan Started	12:36:07	09/24/99
Scan Completed	12:36:07	09/24/99

Robot Operator Signature _____ DATE 9/24/99

UT Operator Signature Larry C. Hines DATE 9-24-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. 16DM / 16DM DESCRIPTION **Inlet Nozzle Safe end & Inlet Nozzle to Elbow At 113°**

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST 9/29/99

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW
PERP. SCANS IN / OUT

ITEM / AREA Inlet Nozzle Safe end & Inlet Nozzle to Elbow at 113°

WELD NO. 16DM / 16DM

BEAM ANGLES

BEAM DIRECTION	70°L		45°L IN		45°L OUT		45°S IN		45°S OUT	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100								
CW	100	100								
UP (IN)	100	100		100(1)				100(1)		
DOWN (OUT)	100	100				100(1)				100(1)
BORE AXIAL										

(1) OD Equivalency

ANALYST [illegible] 9/29/88

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN113-NS-IN	W21	360 - 180	88.45 - 110.8		LCH	II	9-24-99	
WN113-NS-INa	W21	180 - 0	88.45 - 110.8		LCH	II	9-24-99	
WN113-IRS-IN	IR21	88.5 - 110.8	360 - 0		LCH	II	9-24-99	
WN113-BIR-IN	IR21	87.34	360 - 0		LCH	II	9-24-99	
WN113-SE-PAR-IN	16DM	126.5 - 134.4	360 - 0		LCH	II	9-24-99	
WN113-SE-PRP-IN	16DM	360 - 180	120 - 137.2		LCH	II	9-24-99	
WN113-SE-PRP-INa	16DM	180 - 0	120 - 137.2		LCH	II	9-24-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: 16DM

WELD TYPE: INLET NOZZLE SAFE END AT 113° INLET NOZZLE TO ELBOW AT 113°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
WN113-SE-PAR-IN	01	70L CW	X				YZ	9-24-99
	02	70L CCW	X				YZ	9-24-99
WN113-SE-PRP-IN	01	70L IN	X				SAS	9-24-99
	02	70L OUT	X				SAS	9-24-99
	03	45L IN	X				SAS	9-24-99
	04	45S IN	X				SAS	9-24-99
	05	45L OUT	X				SAS	9-24-99
	06	45S OUT	X				SAS	9-24-99
WN113-SE-PRP-INa	01	70L IN	X				SAS	9-24-99
	02	70L OUT	X				SAS	9-24-99
	03	45L IN	X				SAS	9-24-99
	04	45S IN	X				SAS	9-24-99
	05	45L OUT	X				SAS	9-24-99
	06	45S OUT	X				SAS	9-24-99

SIGNATURE: SA Sch LEVEL: III DATE: 9-24-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~WN~~1 16DM/16DM
Weld and Scan Type = NOZZLE SAFE END PARALLEL SCAN
Scan Data File Name = WN113-SE-PAR-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	126.50	179.90
END CCW	:	126.50	-179.90
START CW	:	134.40	179.90
END CCW	:	134.40	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	126.50	179.90
TOP RIGHT	:	134.30	-179.90
BOTTOM LEFT	:	126.50	-179.90
BOTTOM RIGHT	:	134.30	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 699.8
Scan Area - This Scan (sq in) = 699.8
Scan Area - Completed (sq in) = 699.8

	Time	Date
Scan Started	12:54:27	09/24/99
Scan Completed	13:09:10	09/24/99

Robot Operator Signature _____ DATE 24 Sep 99

UT Operator Signature _____ DATE 9/24/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W21
Weld and Scan Type = NOZZLE SAFE END PERPENDICULAR SCAN
Scan Data File Name = WN113-SE-PRP-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	120.00
END CCW	:	-179.90	120.00
START CW	:	179.90	137.30
END CCW	:	-179.90	137.30

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	120.00
:	360.00	137.30
:	0.00	137.30
:	360.00	120.00

Increment Size (in)	=	0.12
Number of Indexes Specified	=	721
Number of Indexes Completed	=	721
Scan Area - Original Techniques (sq in)	=	1496.8
Scan Area - This Scan (sq in)	=	1496.8
Scan Area - Completed (sq in)	=	1496.8

	Time	Date
Scan Started	15:21:37	09/24/99
Scan Completed	17:37:05	09/24/99

Robot Operator Signature _____ DATE 92499

UT Operator Signature _____ DATE 9-24-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W22 DESCRIPTION Outlet Nozzle to Shell at 158°

LIMITATIONS NO [ ] YES [X] Nozzle boss

RESULTS

NI	NRI	RI
[ ]	[ ]	[X]

NO. OF INDICATIONS 1
STATUS Acceptable

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[X] ASSESSMENT SHEET
[X] ACQUISITION LOG	[X] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS: Tangential
PERP. SCANS: Bore IN/OUT

ITEM / AREA: Outlet Nozzle to Shell at 158°

WELD NO. 22

BEAM ANGLES

BEAM DIRECTION	45°S (1)		60°S (1)		70°L (1)		10°L (2)		50°L (2)	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		43		43		43				
CW		43		43		43				
UP (IN)										
DOWN (OUT)										
BORE AXIAL							89.3	89.3	89.4	89.4

(1) Nozzle Boss Limitation, Tangential Scan
(2) 10°L and 50°L Designed to work together
Combined Coverage – 98.5%

ANALYST

WesDyne International

INDICATION ASSESSMENT

PLANT: INDIAN POINT UNIT: 3

ANALYST: [signature] LEVEL: III DATE: 9-26-99

FILE / BUFFER	DISK	WELD NO.	INDICATION NO.	BEAM ANGLE	BEAM DIRECTION	CLASSIFICATION VOLUMETRIC / PLANAR	APPLICABLE "t"	FLAW DEPTH MIN / MAX	LENGTH (L)	SURF. / SUB.	S. DIM.	Y VALUE (S / a)	2a DIM. / a DIM.	a / L VALUE (0.50 MAX)	a / t%	ALLOWABLE a / t%	PEAK MAX AMP (% DAC)	PEAK X (SWP#)	PEAK YB	PEAK ZB	NOTES
WN158-NS								88.54					0.89				81	(47)			
-ONa-01		W22	1	10L	IN	P	10.75	89.43	1.0	SUB	3.0	1	0.45	0.45	4.2	5.9	65	174.6	89.14	9.49	1

NOTES

(1) Code Allowable per ASME 1983, IWB 3512-1

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN158-NS-ON	W22	360 - 180	85.50 - 110.25		LCH	II	9-26-99	
WN158-NS-ONa	W22	180 - 0	85.50 - 110.25		LCH	II	9-26-99	
WN158-IRS-ON	IR22	85.9 - 97.1	360 - 0		LCH	II	9-26-99	
WN158-BIR-ON	IR22	101.53	360 - 0		LCH	II	9-26-99	
WN158-SE-PAR-ON	1DM	118.25 - 126.25	360 - 0		LCH	II	9-26-99	
WN158-SE-PRP-ON	1DM	360 - 180	112.0 - 129.0		LCH	II	9-26-99	
WN158-SE-PRP-ONa	1DM	180 - 0	112.0 - 129.0		LCH	II	9-26-99	

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN158-TAN-ON	W22	26.6	180		MFF	II	9-26-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W22

WELD TYPE: OUTLET NOZZLE TO SHELL AT 158°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN158-NS-ON	01	10L IN	X				YZ 9-26-99
	02	50L IN	X				YZ 9-26-99
WN158-NS-ONa	01	10L IN			X	Reference Indication Assessment Sheet Indication #1	YZ 9-26-99
	02	50L IN	X				YZ 9-26-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/26/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W22

WELD TYPE: OUTLET NOZZLE TO SHELL AT 158°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN158-TAN-ON	01	45S CW	X				SAS 9-27-99
	02	45S CCW	X				SAS 9-27-99
	03	60S CW	X				SAS 9-27-99
	04	60S CCW	X				SAS 9-27-99
	05	70L CW	X				SAS 9-27-99
	06	70L CCW	X				SAS 9-27-99
	07	0	X				SAS 9-27-99

SIGNATURE: SA Sabo

LEVEL: III

DATE: 9-27-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W22
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN158-NS-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	85.50
END CCW	:	-179.90	85.50
START CW	:	179.90	110.25
END CCW	:	-179.90	110.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	85.50
:	360.00	110.25
:	0.00	110.25
:	360.00	85.50

Increment Size (in) = 0.13
Number of Indexes Specified = 702
Number of Indexes Completed = 702
Scan Area - Original Techniques (sq in) = 2281.5
Scan Area - This Scan (sq in) = 2356.2
Scan Area - Completed (sq in) = 2281.5

	Time	Date
Scan Started	09:54:54	09/26/99
Scan Completed	11:46:38	09/26/99

Robot Operator Signature Scott Roth DATE 92699

UT Operator Signature Larry C. Hines DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = WN158
Weld and Scan Type = NOZZLE TO SHELL (TAN) PARALLEL SCAN
WN 158 TANON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		RADIUS (IN)	AZIMUTH (DEGREES)
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	26.60	179.90
TOP RIGHT	:	34.00	179.90
BOTTOM LEFT	:	26.60	-179.90
BOTTOM RIGHT	:	34.00	-179.90

Increment Size (in)	=	0.50
Number of Indexes Specified	=	16
Number of Indexes Completed	=	16
Scan Area - Original Techniques (sq in)	=	1536.6
Scan Area - This Scan (sq in)	=	1538.3
Scan Area - Completed (sq in)	=	1538.3

	Time	Date
Scan Started	22:56:45	09/26/99
Scan Completed	23:17:37	09/26/99

Robot Operator Signature _____ DATE 9-26-99

UT Operator Signature _____ DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. IR22 DESCRIPTION Outlet Nozzle IR at 158°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS N/A
PERP. SCANS CW / CCW

ITEM / AREA Outlet Nozzle IR at 158°

WELD NO. IR22

BEAM ANGLES

BEAM DIRECTION	70°L									
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		93								
CW		93								
UP (IN)										
DOWN (OUT)										
BORE AXIAL										

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN158-NS-ON	W22	360 - 180	85.50 - 110.25		LCH	II	9-26-99	
WN158-NS-ONa	W22	180 - 0	85.50 - 110.25		LCH	II	9-26-99	
WN158-IRS-ON	IR22	85.9 - 97.1	360 - 0		LCH	II	9-26-99	
WN158-BIR-ON	IR22	101.53	360 - 0		LCH	II	9-26-99	
WN158-SE-PAR-ON	1DM	118.25 - 126.25	360 - 0		LCH	II	9-26-99	
WN158-SE-PRP-ON	1DM	360 - 180	112.0 - 129.0		LCH	II	9-26-99	
WN158-SE-PRP-ONa	1DM	180 - 0	112.0 - 129.0		LCH	II	9-26-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: IR22

WELD TYPE: OUTLET NOZZLE IR AT 158°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN158-BIR-ON	01	70L CW	X				YZ 9-26-99
	02	70L CCW	X				YZ 9-26-99
WN158-IRS-ON	01	70L CW	X				YZ 9-26-99
	02	70L CCW	X				YZ 9-26-99

SIGNATURE: Yingzhe Zhang

LEVEL: III

DATE: 9/26/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W22
Weld and Scan Type = NOZZLE INNER RADIUS SUPLEMENTAL EXAM
Scan Data File Name = WN158-IRS-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	85.90	179.90
END CCW	:	85.90	-179.90
START CW	:	97.10	179.90
END CCW	:	97.10	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	85.90	179.90
TOP RIGHT	:	97.13	-179.90
BOTTOM LEFT	:	85.90	-179.90
BOTTOM RIGHT	:	97.13	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 39
Number of Indexes Completed = 39
Scan Area - Original Techniques (sq in) = 1195.7
Scan Area - This Scan (sq in) = 1195.7
Scan Area - Completed (sq in) = 1195.7

	Time	Date
Scan Started	11:54:53	09/26/99
Scan Completed	12:16:21	09/26/99

Robot Operator Signature _____ DATE 26 Sep 99

UT Operator Signature _____ DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W22 IR22
Weld and Scan Type = NOZZLE INNER RADIUS TRACKING EXAM
Scan Data File Name = WN158-BIR-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	84.90
END CCW	:	-179.90	84.90
START CW	:	179.90	84.90
END CCW	:	-179.90	84.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	84.90	179.90
TOP RIGHT	:	84.90	-179.90
BOTTOM LEFT	:	84.90	-179.90
BOTTOM RIGHT	:	84.90	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 1
Number of Indexes Completed = 1
Scan Area - Original Techniques (sq in) = 33.8
Scan Area - This Scan (sq in) = 33.8
Scan Area - Completed (sq in) = 33.8

	Time	Date
Scan Started	12:24:11	09/26/99
Scan Completed	12:24:11	09/26/99

Robot Operator Signature _____ DATE 26 SEP 99

UT Operator Signature _____ DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. 1DM / 1DM DESCRIPTION **Outlet Nozzle Safe end & Outlet Nozzle to pipe At 158°**

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0
STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW
PERP. SCANS IN / OUT

ITEM / AREA Outlet Nozzle Safe end & Outlet Nozzle to pipe at 158°

WELD NO. 1DM / 1DM

BEAM ANGLES

BEAM DIRECTION	70°L		45°L IN		45°L OUT		45°S IN		45°S OUT	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100								
CW	100	100								
UP (IN)	100	100		100(1)				100(1)		
DOWN (OUT)	100	100				100(1)				100(1)
BORE AXIAL										

(1) O.D. Surface Alternative

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN158-NS-ON	W22	360 - 180	85.50 - 110.25		LCH	II	9-26-99	
WN158-NS-ONa	W22	180 - 0	85.50 - 110.25		LCH	II	9-26-99	
WN158-IRS-ON	IR22	85.9 - 97.1	360 - 0		LCH	II	9-26-99	
WN158-BIR-ON	IR22	101.53	360 - 0		LCH	II	9-26-99	
WN158-SE-PAR-ON	1DM	118.25 - 126.25	360 - 0		LCH	II	9-26-99	
WN158-SE-PRP-ON	1DM	360 - 180	112.0 - 129.0		LCH	II	9-26-99	
WN158-SE-PRP-ONa	1DM	180 - 0	112.0 - 129.0		LCH	II	9-26-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: 1DM

WELD TYPE: OUTLET NOZZLE SAFE END AT 158°
OUTLET NOZZLE TO PIPE AT 158°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN158-SE-PAR-ON	01	70L CW	X				YZ 9-26-99
	02	70L CCW	X				YZ 9-26-99
WN158-SE-PRP-ON	01	70L IN	X				YZ 9-26-99
	02	70L OUT	X				YZ 9-26-99
	03	45L IN	X				YZ 9-26-99
	04	45S IN	X				YZ 9-26-99
	05	45L OUT	X				YZ 9-26-99
	06	45S OUT	X				YZ 9-26-99
WN158-SE-PRP-ONa	01	70L IN	X				YZ 9-26-99
	02	70L OUT	X				YZ 9-26-99
	03	45L IN	X				YZ 9-26-99
	04	45S IN	X				YZ 9-26-99
	05	45L OUT	X				YZ 9-26-99
	06	45S OUT	X				YZ 9-26-99

SIGNATURE: Yingzhe Zhang LEVEL: III DATE: 9/26/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W22~~ 9-29 1DM/1DM
Weld and Scan Type = NOZZLE SAFE END PARALLEL SCAN
Scan Data File Name = WN158-SE-PAR-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	118.25	179.90
END CCW	:	118.25	-179.90
START CW	:	126.25	179.90
END CCW	:	126.25	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	118.25	179.90
TOP RIGHT	:	126.05	-179.90
BOTTOM LEFT	:	118.25	-179.90
BOTTOM RIGHT	:	126.05	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 737.9
Scan Area - This Scan (sq in) = 737.9
Scan Area - Completed (sq in) = 737.9

	Time	Date
Scan Started	12:33:10	09/26/99
Scan Completed	12:47:55	09/26/99

Robot Operator Signature _____ DATE 26 Sep 99

UT Operator Signature _____ DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W22
Weld and Scan Type = NOZZLE SAFE END PERPENDICULAR SCAN
Scan Data File Name = WN158-SE-PRP-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	112.00
END CCW	:	-179.90	112.00
START CW	:	179.90	129.00
END CCW	:	-179.90	129.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	112.00
:	360.00	129.00
:	0.00	129.00
:	360.00	112.00

Increment Size (in)	=	0.13
Number of Indexes Specified	=	702
Number of Indexes Completed	=	702
Scan Area - Original Techniques (sq in)	=	1551.4
Scan Area - This Scan (sq in)	=	1602.2
Scan Area - Completed (sq in)	=	1551.4

	Time	Date
Scan Started	12:57:59	09/26/99
Scan Completed	14:57:58	09/26/99

Robot Operator Signature _____ DATE 92699

UT Operator Signature _____ DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W23 DESCRIPTION Outlet Nozzle to Shell at 202°

LIMITATIONS NO [ ] YES [X] Nozzle boss

RESULTS

NI	NRI	RI
[ ]	[X]	[ ]

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [signature] 9/29/99

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS: Tangential
PERP. SCANS: Bore IN/OUT

ITEM / AREA: Outlet Nozzle to Shell at 202°

WELD NO. 23

BEAM ANGLES

BEAM DIRECTION	45°S (1)		60°S (1)		70°L (1)		10°L (2)		50°L (2)	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		43		43		43				
CW		43		43		43				
UP (IN)										
DOWN (OUT)										
BORE AXIAL							89.3	89.3	89.4	89.4

(1) Nozzle Boss Limitation, Tangential Scan
(2) 10°L and 50°L Designed to work together
Combined Coverage – 98.5%

ANALYST [illegible] 9/29/98

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN202-NS-ON	W23	360 - 180	85.5 - 110.25		CSW	II	9-22-99	
WN202-NS-ONa	W23	180 - 0	85.5 - 110.25		LCH	II	9-22-99	
WN202-IRS-ON	IR23	85.9 - 110.25	360 - 0		LCH	II	9-23-99	
WN202-BIR-ON	IR23	84.5	360 - 0		LCH	II	9-23-99	
WN202-SE-PAR-ON	1DM	118.25 - 126.25	360 - 0		LCH	II	9-23-99	
WN202-SE-PRP-ON	1DM	360 - 0	112 - 129		LCH	II	9-23-99	
RWN202-SE-PRP-ON	1DM	360 - 178.75	112 - 129		CSW	II	9-24-99	
RWN202-SE-PRP-ONa	1DM	178.75 - 67.70	112 - 129		CSW	II	9-24-99	
RWN202-SE-PRP-ONb	1DM	67.70 - 0	112 - 129		CSW	II	9-24-99	

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN202-TAN-ON	W23	26.6	180		MFF	II	9-27-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W23

WELD TYPE: OUTLET NOZZLE TO SHELL AT 202°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN202-NS-ON	01	10L IN		X			SAS 9-23-99
	02	50L IN	X				SAS 9-23-99
WN202-NS-ONa	01	10L IN		X			YZ 9-23-99
	02	50L IN	X				YZ 9-23-99

SIGNATURE: [illegible], [illegible] LEVEL: III DATE: 9-23-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W23

WELD TYPE: OUTLET NOZZLE TO SHELL AT 202°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN202-TAN-ON	01	45S CW	X				SAS 9-27-99
	02	45S CCW	X				SAS 9-27-99
	03	60S CW	X				SAS 9-27-99
	04	60S CCW	X				SAS 9-27-99
	05	70L CW	X				SAS 9-27-99
	06	70L CCW	X				SAS 9-27-99
	07	0	X				SAS 9-27-99

SIGNATURE: SA Sch

LEVEL: III

DATE: 9-27-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W23
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN202-NS-ONa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	85.50
END CCW	:	-179.90	85.50
START CW	:	179.90	110.25
END CCW	:	-179.90	110.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	179.24	85.50
:	360.00	110.25
:	179.24	110.25
:	360.00	85.50

Increment Size (in)	=	0.13
Number of Indexes Specified	=	702
Number of Indexes Completed	=	342
Scan Area - Original Techniques (sq in)	=	2281.5
Scan Area - This Scan (sq in)	=	2356.2
Scan Area - Completed (sq in)	=	1111.5

	Time	Date
Scan Started	06:28:59	09/23/99
Scan Completed	07:19:40	09/23/99

Robot Operator Signature Frank R. Keefer DATE 9-23-99

UT Operator Signature Larry C. Hines DATE 9/23-/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W23
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN202-NS-ONaaaaaaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	85.50
END CCW	:	-179.90	85.50
START CW	:	179.90	110.25
END CCW	:	-179.90	110.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	85.50
:	257.83	110.25
:	0.00	110.25
:	257.83	85.50

Increment Size (in)	=	0.12
Number of Indexes Specified	=	702
Number of Indexes Completed	=	523
Scan Area - Original Techniques (sq in)	=	2281.5
Scan Area - This Scan (sq in)	=	2190.0
Scan Area - Completed (sq in)	=	1569.0

	Time	Date
Scan Started	04:11:33	09/23/99
Scan Completed	05:35:53	09/23/99

Robot Operator Signature Frank R. Keefe DATE 9-23-99

UT Operator Signature Larry C. Hines DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = WN202
Weld and Scan Type = NOZZLE TO SHELL (TAN) PARALLEL SCAN
WN 202 TAN ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		RADIUS (IN)	AZIMUTH (DEGREES)
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	26.60	179.90
TOP RIGHT	:	34.00	179.90
BOTTOM LEFT	:	26.60	-179.90
BOTTOM RIGHT	:	34.00	-179.90

Increment Size (in)	=	0.50
Number of Indexes Specified	=	16
Number of Indexes Completed	=	16
Scan Area - Original Techniques (sq in)	=	1536.6
Scan Area - This Scan (sq in)	=	1538.3
Scan Area - Completed (sq in)	=	1538.3

	Time	Date
Scan Started	02:25:18	09/27/99
Scan Completed	02:41:25	09/27/99

Robot Operator Signature _____ DATE 9-27-99

UT Operator Signature _____ DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. IR23 DESCRIPTION Outlet Nozzle IR at 202°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST 9/29/89

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS N/A

PERP. SCANS CW / CCW

ITEM / AREA Outlet Nozzle IR at 202°

WELD NO. IR23

BEAM ANGLES

BEAM DIRECTION	70°L									
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		95								
CW		95								
UP (IN)										
DOWN (OUT)										
BORE AXIAL										

ANALYST [illegible] 9/28/88

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN202-NS-ON	W23	360 - 180	85.5 - 110.25		CSW	II	9-22-99	
WN202-NS-ONa	W23	180 - 0	85.5 - 110.25		LCH	II	9-22-99	
WN202-IRS-ON	IR23	85.9 - 110.25	360 - 0		LCH	II	9-23-99	
WN202-BIR-ON	IR23	84.5	360 - 0		LCH	II	9-23-99	
WN202-SE-PAR-ON	1DM	118.25 - 126.25	360 - 0		LCH	II	9-23-99	
WN202-SE-PRP-ON	1DM	360 - 0	112 - 129		LCH	II	9-23-99	
RWN202-SE-PRP-ON	1DM	360 - 178.75	112 - 129		CSW	II	9-24-99	
RWN202-SE-PRP-ONa	1DM	178.75 - 67.70	112 - 129		CSW	II	9-24-99	
RWN202-SE-PRP-ONb	1DM	67.70 - 0	112 - 129		CSW	II	9-24-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: IR23

WELD TYPE: OUTLET NOZZLE IR AT 202°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN202-IRS-ON	01	70L CW	X				YZ 9-23-99
	02	70L CCW	X				YZ 9-23-99
WN202-BIR-ON	01	70L CW	X				YZ 9-23-99
	02	70L CCW	X				YZ 9-23-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/23/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W23~~ IR23 (Y.E)
Weld and Scan Type = NOZZLE INNER RADIUS SUPLEMENTAL EXAM
Scan Data File Name = WN202-IRS-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	85.90	179.90
END CCW	:	85.90	-179.90
START CW	:	97.10	179.90
END CCW	:	97.10	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	85.90	179.90
TOP RIGHT	:	97.13	-179.90
BOTTOM LEFT	:	85.90	-179.90
BOTTOM RIGHT	:	97.13	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 39
Number of Indexes Completed = 39
Scan Area - Original Techniques (sq in) = 1195.7
Scan Area - This Scan (sq in) = 1195.7
Scan Area - Completed (sq in) = 1195.7

	Time	Date
Scan Started	08:04:54	09/23/99
Scan Completed	08:26:26	09/23/99

Robot Operator Signature [signature] DATE 9/23/99

UT Operator Signature [signature] DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W23~~ 1R23 (98)
Weld and Scan Type = NOZZLE INNER RADIUS TRACKING EXAM
Scan Data File Name = WN202-BIR-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	84.90
END CCW	:	-179.90	84.90
START CW	:	179.90	84.90
END CCW	:	-179.90	84.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	84.90	179.90
TOP RIGHT	:	84.90	-179.90
BOTTOM LEFT	:	84.90	-179.90
BOTTOM RIGHT	:	84.90	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 1
Number of Indexes Completed = 1
Scan Area - Original Techniques (sq in) = 33.8
Scan Area - This Scan (sq in) = 33.8
Scan Area - Completed (sq in) = 33.8

	Time	Date
Scan Started	15:43:48	09/23/99
Scan Completed	15:43:48	09/23/99

Robot Operator Signature Frank R. Keefer DATE 9/23/99

UT Operator Signature Larry C. Hines DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. 1DM / 1DM DESCRIPTION **Outlet Nozzle Safe end & Outlet Nozzle to pipe At 202°**

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST 9/29/99

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW
PERP. SCANS IN / OUT

ITEM / AREA Outlet Nozzle Safe end & Outlet Nozzle to pipe at 202°

WELD NO. 1DM / 1DM

BEAM ANGLES

BEAM DIRECTION	70°L		45°L IN		45°L OUT		45°S IN		45°S OUT	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100								
CW	100	100								
UP (IN)	100	100		100(1)				100(1)		
DOWN (OUT)	100	100				100(1)				100(1)
BORE AXIAL										

(1) O.D. Surface Alternative

ANALYST [signature] 9/28/99

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN202-NS-ON	W23	360 - 180	85.5 - 110.25		CSW	II	9-22-99	
WN202-NS-ONa	W23	180 - 0	85.5 - 110.25		LCH	II	9-22-99	
WN202-IRS-ON	IR23	85.9 - 110.25	360 - 0		LCH	II	9-23-99	
WN202-BIR-ON	IR23	84.5	360 - 0		LCH	II	9-23-99	
WN202-SE-PAR-ON	1DM	118.25 - 126.25	360 - 0		LCH	II	9-23-99	
WN202-SE-PRP-ON	1DM	360 - 0	112 - 129		LCH	II	9-23-99	
RWN202-SE-PRP-ON	1DM	360 - 178.75	112 - 129		CSW	II	9-24-99	
RWN202-SE-PRP-ONa	1DM	178.75 - 67.70	112 - 129		CSW	II	9-24-99	
RWN202-SE-PRP-ONb	1DM	67.70 - 0	112 - 129		CSW	II	9-24-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: 1DM

WELD TYPE: OUTLET NOZZLE SAFE END AT 202°
OUTLET NOZZLE TO PIPE AT 202°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
WN202-SE-PAR-ON	01	70L CW	X				YZ	9-24-99
	02	70L CCW	X				YZ	9-24-99
RWN202-SE-PRP-ON	01	70L IN	X				YZ	9-24-99
	02	70L OUT	X				YZ	9-24-99
	03	45L IN	X				YZ	9-24-99
	04	45S IN	X				YZ	9-24-99
	05	45L OUT	X				YZ	9-24-99
	06	45S OUT	X				YZ	9-24-99
RWN202SEPRP-ONa	01	70L IN	X				YZ	9-24-99
	02	70L OUT	X				YZ	9-24-99
	03	45L IN	X				YZ	9-24-99
	04	45S IN	X				YZ	9-24-99
	05	45L OUT	X				YZ	9-24-99
	06	45S OUT	X				YZ	9-24-99
RWN202SEPRP-ONb	01	70L IN	X				SAS	9-24-99
	02	70L OUT	X				SAS	9-24-99
	03	45L IN	X				SAS	9-24-99
	04	45S IN	X				SAS	9-24-99
	05	45L OUT	X				SAS	9-24-99
	06	45S OUT	X				SAS	9-24-99

SIGNATURE: [illegible] LEVEL: III DATE: 9-24-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W23~~ 1DM/1DM C-2
Weld and Scan Type = NOZZLE SAFE END PARALLEL SCAN
Scan Data File Name = WN202-SE-PAR-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	118.25	179.90
END CCW	:	118.25	-179.90
START CW	:	126.25	179.90
END CCW	:	126.25	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	118.25	179.90
TOP RIGHT	:	126.05	-179.90
BOTTOM LEFT	:	118.25	-179.90
BOTTOM RIGHT	:	126.05	179.90

Increment Size (in)	=	0.30
Number of Indexes Specified	=	27
Number of Indexes Completed	=	27
Scan Area - Original Techniques (sq in)	=	737.9
Scan Area - This Scan (sq in)	=	737.9
Scan Area - Completed (sq in)	=	737.9

	Time	Date
Scan Started	16:17:19	09/23/99
Scan Completed	16:31:59	09/23/99

Robot Operator Signature Frank R. Keefer DATE 9/23/99

UT Operator Signature Barry C. Hines DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W23~~ 1DM/1DM (Y,Z)
Weld and Scan Type = NOZZLE SAFE END PERPENDICULAR SCAN
Scan Data File Name = WN202-SE-PRP-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	112.00
END CCW	:	-179.90	112.00
START CW	:	179.90	129.00
END CCW	:	-179.90	129.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	0.00	112.00
TOP RIGHT	:	180.73	112.00
BOTTOM LEFT	:	0.00	129.00
BOTTOM RIGHT	:	180.73	129.00
TOP LEFT	:	292.75	112.00
TOP RIGHT	:	360.00	129.00
BOTTOM LEFT	:	292.75	129.00
BOTTOM RIGHT	:	360.00	112.00

Increment Size (in) = 0.13
Number of Indexes Specified = 725
Number of Indexes Completed = 362
Scan Area - Original Techniques (sq in) = 1538.5
Scan Area - This Scan (sq in) = 1602.2
Scan Area - Completed (sq in) = 800.0

	Time	Date
Scan Started	03:10:56	09/24/99
Scan Completed	20:19:33	09/24/99

Robot Operator Signature _____ DATE 9-24-99

UT Operator Signature _____ DATE 9-24-99

RWN 202-SE-PRP-ON, a,b

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~N23~~ 1DM/1DM (9.8)
Weld and Scan Type = NOZZLE SAFE END PERPENDICULAR SCAN
Scan Data File Name = WN202-SE-PRP-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	112.00
END CCW	:	-179.90	112.00
START CW	:	179.90	129.00
END CCW	:	-179.90	129.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	0.00	112.00
TOP RIGHT	:	360.00	112.00
BOTTOM LEFT	:	0.00	129.00
BOTTOM RIGHT	:	360.00	129.00

Increment Size (in)	=	0.25
Number of Indexes Specified	=	362
Number of Indexes Completed	=	362
Scan Area - Original Techniques (sq in)	=	1538.5
Scan Area - This Scan (sq in)	=	1538.5
Scan Area - Completed (sq in)	=	1538.5

	Time	Date
Scan Started	16:41:56	09/23/99
Scan Completed	17:29:12	09/23/99

Robot Operator Signature Frank R. Keefer DATE 9/23/99

UT Operator Signature Larry C. Hines DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W24 DESCRIPTION Inlet Nozzle to Shell at 247°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
[ ]	[X]	[ ]

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST Yingda Z 9/29/98

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS: Tangential

PERP. SCANS: IN (Bore)

ITEM / AREA: Inlet Nozzle to Shell at 247°

WELD NO. 24

BEAM ANGLES

BEAM DIRECTION	45°S		60°S		70°L		10°L		50°L	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		100		100		100				
CW		100		100		100				
UP (IN)							82.1	82.1	91.5	91.5
DOWN (OUT)										
BORE AXIAL										

10°L & 50°L Combined Coverage: 98.5%

ANALYST [illegible] 9/29/88

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN247-NS-IN	W24	360 - 0	88.45 - 110.80		CSW	II	9-23-99	
WN247-IRS-IN	IR24	88.50 - 97.15	360 - 0		CSW	II	9-23-99	
WN247-IRS-INa	IR24	96.85 - 97.4	360 - 0		CSW	II	9-23-99	
WN247-BIR-IN	IR24	87.34	360 - 0		CSW	II	9-23-99	
WN247-SE-PAR-IN	16DM	126.5 - 134.3	360 - 0		CSW	II	9-23-99	
WN247-SE-PRP-IN	16DM	360 - 0	120 - 137.3		CSW	II	9-23-99	

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN247-TAN-IN	W24	20.25	180		MFF	II	9-27-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W24

WELD TYPE: INLET NOZZLE TO SHELL AT 247°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN247-NS-IN	01	10L IN	X				YZ 9-24-99
	02	50L IN		X			YZ 9-24-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/29/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W24

WELD TYPE: INLET NOZZLE TO SHELL AT 247°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN247-TAN-IN	01	45S CW	X				SAS 9-27-99
	02	45S CCW	X				SAS 9-27-99
	03	60S CW	X				SAS 9-27-99
	04	60S CCW	X				SAS 9-27-99
	05	70L CW	X				SAS 9-27-99
	06	70L CCW	X				SAS 9-27-99
	07	0	X				SAS 9-27-99

SIGNATURE: SA Sales

LEVEL: III

DATE: 9-27-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W24
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN247-NS-INa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	88.45
END CCW	:	-179.90	88.45
START CW	:	179.90	110.80
END CCW	:	-179.90	110.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	88.45
:	360.00	110.80
:	0.00	110.80
:	360.00	88.45

Increment Size (in)	=	0.12
Number of Indexes Specified	=	721
Number of Indexes Completed	=	721
Scan Area - Original Techniques (sq in)	=	1946.7
Scan Area - This Scan (sq in)	=	1946.7
Scan Area - Completed (sq in)	=	1946.7

	Time	Date
Scan Started	18:26:31	09/23/99
Scan Completed	19:49:12	09/23/99

Robot Operator Signature _____ DATE 9/23/99

UT Operator Signature _____ DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = WN247
Weld and Scan Type = NOZZLE TO SHELL (TAN) PARALLEL SCAN
WN 247 TAWIN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		RADIUS (IN)	AZIMUTH (DEGREES)
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	20.25	179.90
TOP RIGHT	:	35.25	-179.90
BOTTOM LEFT	:	20.25	-179.90
BOTTOM RIGHT	:	35.25	179.90

Increment Size (in) = 0.50
Number of Indexes Specified = 31
Number of Indexes Completed = 31
Scan Area - Original Techniques (sq in) = 2719.9
Scan Area - This Scan (sq in) = 2723.0
Scan Area - Completed (sq in) = 2723.0

	Time	Date
Scan Started	01:57:08	09/27/99
Scan Completed	02:15:33	09/27/99

Robot Operator Signature _____ DATE 9-27-99

UT Operator Signature _____ DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. IR24 DESCRIPTION Inlet Nozzle IR at 247°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [signature] 9/29/99

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW

PERP. SCANS

ITEM / AREA Inlet Nozzle IR at 247°

WELD NO. IR24

BEAM ANGLES

BEAM DIRECTION	70°L									
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		95								
CW		95								
UP (IN)										
DOWN (OUT)										
BORE AXIAL										

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN247-NS-IN	W24	360 - 0	88.45 - 110.80		CSW	II	9-23-99	
WN247-IRS-IN	IR24	88.50 - 97.15	360 - 0		CSW	II	9-23-99	
WN247-IRS-INa	IR24	96.85 - 97.4	360 - 0		CSW	II	9-23-99	
WN247-BIR-IN	IR24	87.34	360 - 0		CSW	II	9-23-99	
WN247-SE-PAR-IN	16DM	126.5 - 134.3	360 - 0		CSW	II	9-23-99	
WN247-SE-PRP-IN	16DM	360 - 0	120 - 137.3		CSW	II	9-23-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: IR24

WELD TYPE: INLET NOZZLE IR AT 247°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN247-IRS-IN	01	70L CW	X				YZ 9-24-99
	02	70L CCW	X				YZ 9-24-99
WN247-IRS-INa	01	70L CW	X				YZ 9-24-99
	02	70L CCW	X				YZ 9-24-99
WN247-BIR-IN	01	70L CW	X				YZ 9-24-99
	02	70L CCW	X				YZ 9-24-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/24/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W24
Weld and Scan Type = NOZZLE INNER RADIUS SUPLEMENTAL EXAM
Scan Data File Name = WN247-IRS-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	88.50	179.90
END CCW	:	88.50	-179.90
START CW	:	97.40	179.90
END CCW	:	97.40	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	88.50	179.90
:	97.45	-179.90
:	88.50	-179.90
:	97.45	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 31
Number of Indexes Completed = 31
Scan Area - Original Techniques (sq in) = 989.4
Scan Area - This Scan (sq in) = 989.4
Scan Area - Completed (sq in) = 989.4

	Time	Date
Scan Started	20:21:44	09/23/99
Scan Completed	20:38:36	09/23/99

Robot Operator Signature Kevin A. Carr DATE 9/23/99

UT Operator Signature Carl L Wyffe DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W24~~ IR24 (Y2)
Weld and Scan Type = NOZZLE INNER RADIUS TRACKING EXAM
Scan Data File Name = WN247-BIR-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	87.34
END CCW	:	-179.90	87.34
START CW	:	179.90	87.34
END CCW	:	-179.90	87.34

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	87.34	179.90
TOP RIGHT	:	87.34	-179.90
BOTTOM LEFT	:	87.34	-179.90
BOTTOM RIGHT	:	87.34	179.90

Increment Size (in)	=	0.30
Number of Indexes Specified	=	1
Number of Indexes Completed	=	1
Scan Area - Original Techniques (sq in)	=	33.6
Scan Area - This Scan (sq in)	=	33.6
Scan Area - Completed (sq in)	=	33.6

	Time	Date
Scan Started	21:15:25	09/23/99
Scan Completed	21:15:25	09/23/99

Robot Operator Signature Kevin A. Carr DATE 9/23/99

UT Operator Signature [illegible] DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. 16DM / 16DM DESCRIPTION **Inlet Nozzle Safe end & Inlet Nozzle to Elbow At 247°**

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0
STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST Yingh 9/29/91

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW
PERP. SCANS IN / OUT

ITEM / AREA Inlet Nozzle Safe end & Inlet Nozzle to Elbow at 247°

WELD NO. 16DM / 16DM

BEAM ANGLES

BEAM DIRECTION	70°L		45°L IN		45°L OUT		45°S IN		45°S OUT	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100								
CW	100	100								
UP (IN)	100	100		100(1)				100(1)		
DOWN (OUT)	100	100				100(1)				100(1)
BORE AXIAL										

(1) OD Equivalency

ANALYST [signature] 9/29/98

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN247-NS-IN	W24	360 - 0	88.45 - 110.80		CSW	II	9-23-99	
WN247-IRS-IN	IR24	88.50 - 97.15	360 - 0		CSW	II	9-23-99	
WN247-IRS-INa	IR24	96.85 - 97.4	360 - 0		CSW	II	9-23-99	
WN247-BIR-IN	IR24	87.34	360 - 0		CSW	II	9-23-99	
WN247-SE-PAR-IN	16DM	126.5 - 134.3	360 - 0		CSW	II	9-23-99	
WN247-SE-PRP-IN	16DM	360 - 0	120 - 137.3		CSW	II	9-23-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: 16DM

WELD TYPE: INLET NOZZLE SAFE END AT 247°
INLET NOZZLE TO ELBOW AT 247°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN247-SE-PAR-IN	01	70L CW	X				YZ 9-24-99
	02	70L CCW	X				YZ 9-24-99
WN247-SE-PRP-IN	01	70L IN	X				YZ 9-24-99
	02	70L OUT	X				YZ 9-24-99
	03	45L IN	X				YZ 9-24-99
	04	45S IN	X				YZ 9-24-99
	05	45L OUT	X				YZ 9-24-99
	06	45S OUT	X				YZ 9-24-99

SIGNATURE: Yingdan Z

LEVEL: III

DATE: 9/24/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W24~~ 16DM (Y-8)
Weld and Scan Type = NOZZLE SAFE END PARALLEL SCAN
Scan Data File Name = WN247-SE-PAR-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	126.50	179.90
END CCW	:	126.50	-179.90
START CW	:	134.40	179.90
END CCW	:	134.40	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	126.50	179.90
TOP RIGHT	:	134.30	-179.90
BOTTOM LEFT	:	126.50	-179.90
BOTTOM RIGHT	:	134.30	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 699.8
Scan Area - This Scan (sq in) = 699.8
Scan Area - Completed (sq in) = 699.8

	Time	Date
Scan Started	21:45:26	09/23/99
Scan Completed	22:00:09	09/23/99

Robot Operator Signature Kevin A. Carr DATE 9/23/99

UT Operator Signature [illegible] DATE 9/23/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W24
Weld and Scan Type = NOZZLE SAFE END PERPENDICULAR SCAN
Scan Data File Name = WN247-SE-PRP-INa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	120.00
END CCW	:	-179.90	120.00
START CW	:	179.90	137.30
END CCW	:	-179.90	137.30

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	120.00
:	360.00	137.30
:	0.00	137.30
:	360.00	120.00

Increment Size (in)	=	0.12
Number of Indexes Specified	=	721
Number of Indexes Completed	=	721
Scan Area - Original Techniques (sq in)	=	1496.8
Scan Area - This Scan (sq in)	=	1496.8
Scan Area - Completed (sq in)	=	1496.8

	Time	Date
Scan Started	00:21:39	09/24/99
Scan Completed	02:19:43	09/24/99

Robot Operator Signature Kevin A. Carr DATE 9/24/99

UT Operator Signature Carl A. Wyllie DATE 9/24/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W25 DESCRIPTION Inlet Nozzle to Shell at 293°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
[ ]	[X]	[ ]

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [illegible signature] 9/29/89

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS: Tangential

PERP. SCANS: IN (Bore)

ITEM / AREA: Inlet Nozzle to Shell at 293°

WELD NO. 25

BEAM ANGLES

BEAM DIRECTION	45°S		60°S		70°L		10°L		50°L	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		100		100		100				
CW		100		100		100				
UP (IN)							82.1	82.1	91.5	91.5
DOWN (OUT)										
BORE AXIAL										

10°L & 50°L Combined Coverage: 98.5%

ANALYST [signature] 9/29/89

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN293-NS-IN	W25	360 - 0	88.45 - 110.8		CSW	II	9-24-99	
WN293-IRS-IN	IR25	88.5 - 97.45	360 - 0		CSW	II	9-25-99	
WN293-BIR-IN	IR25	87.34	360 - 0		CSW	II	9-25-99	
WN293-SE-PAR-IN	16DM	126.5 - 134.3	360 - 0		CSW	II	9-25-99	
WN293-SE-PRP-IN	16DM	360 - 249.5	120 - 137.50		CSW	II	9-25-99	
WN293-SE-PRP-INa	16DM	249.5 - 0	120 - 137.50		CSW	II	9-25-99	

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN293-TAN-IN	W25	20.25	180		MFF	II	9-27-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W25

WELD TYPE: INLET NOZZLE TO SHELL AT 293°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN293-NS-IN	01	10L IN		X			YZ 9-25-99
	02	50L IN		X			YZ 9-25-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/25/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W25

WELD TYPE: INLET NOZZLE TO SHELL AT 293°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN293-TAN-IN	01	45S CW	X				SAS 9-27-99
	02	45S CCW	X				SAS 9-27-99
	03	60S CW	X				SAS 9-27-99
	04	60S CCW	X				SAS 9-27-99
	05	70L CW	X				SAS 9-27-99
	06	70L CCW	X				SAS 9-27-99
	07	0	X				SAS 9-27-99

SIGNATURE: SA Sch

LEVEL: III

DATE: 9-27-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W25
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN293-NS-INa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	88.45
END CCW	:	-179.90	88.45
START CW	:	179.90	110.80
END CCW	:	-179.90	110.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	88.45
:	360.00	110.80
:	0.00	110.80
:	360.00	88.45

Increment Size (in) = 0.12
Number of Indexes Specified = 721
Number of Indexes Completed = 721
Scan Area - Original Techniques (sq in) = 1946.7
Scan Area - This Scan (sq in) = 1946.7
Scan Area - Completed (sq in) = 1946.7

	Time	Date
Scan Started	20:47:08	09/24/99
Scan Completed	22:20:37	09/24/99

Robot Operator Signature Kevin A. Carr DATE 9/24/99

UT Operator Signature Carl A. Wyffer DATE 9-24-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = WN293
Weld and Scan Type = NOZZLE TO SHELL (TAN) PARALLEL SCAN
WN293 TAN IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		RADIUS (IN)	AZIMUTH (DEGREES)
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	20.25	179.90
TOP RIGHT	:	35.25	-179.90
BOTTOM LEFT	:	20.25	-179.90
BOTTOM RIGHT	:	35.25	179.90

Increment Size (in) = 0.50
Number of Indexes Specified = 31
Number of Indexes Completed = 31
Scan Area - Original Techniques (sq in) = 2719.9
Scan Area - This Scan (sq in) = 2723.0
Scan Area - Completed (sq in) = 2723.0

	Time	Date
Scan Started	00:34:56	09/27/99
Scan Completed	00:53:22	09/27/99

Robot Operator Signature _____ DATE 9-27-99

UT Operator Signature _____ DATE 9-27-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. IR25 DESCRIPTION Inlet Nozzle IR at 293°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [signature] 9/28/99

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW

PERP. SCANS

ITEM / AREA Inlet Nozzle IR at 293°

WELD NO. IR25

BEAM ANGLES

BEAM DIRECTION	70°L									
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		95								
CW		95								
UP (IN)										
DOWN (OUT)										
BORE AXIAL										

ANALYST Yingel 9/29/99

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN293-NS-IN	W25	360 - 0	88.45 - 110.8		CSW	II	9-24-99	
WN293-IRS-IN	IR25	88.5 - 97.45	360 - 0		CSW	II	9-25-99	
WN293-BIR-IN	IR25	87.34	360 - 0		CSW	II	9-25-99	
WN293-SE-PAR-IN	16DM	126.5 - 134.3	360 - 0		CSW	II	9-25-99	
WN293-SE-PRP-IN	16DM	360 - 249.5	120 - 137.50		CSW	II	9-25-99	
WN293-SE-PRP-INa	16DM	249.5 - 0	120 - 137.50		CSW	II	9-25-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: IR25

WELD TYPE: INLET NOZZLE IR AT 293°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN293-IRS-IN	01	70L CW	X				YZ 9-25-99
	02	70L CCW	X				YZ 9-25-99
WN293-BIR-IN	01	70L CW	X				YZ 9-25-99
	02	70L CCW	X				YZ 9-25-99

SIGNATURE [illegible] LEVEL III DATE 9/25/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W25~~ 2R25 (48)
Weld and Scan Type = NOZZLE INNER RADIUS SUPLEMENTAL EXAM
Scan Data File Name = WN293-IRS-INa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	88.50	179.90
END CCW	:	88.50	-179.90
START CW	:	97.40	179.90
END CCW	:	97.40	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	88.50	179.90
TOP RIGHT	:	97.45	-179.90
BOTTOM LEFT	:	88.50	-179.90
BOTTOM RIGHT	:	97.45	179.90

Increment Size (in)	=	0.30
Number of Indexes Specified	=	31
Number of Indexes Completed	=	31
Scan Area - Original Techniques (sq in)	=	989.4
Scan Area - This Scan (sq in)	=	989.4
Scan Area - Completed (sq in)	=	989.4

	Time	Date
Scan Started	01:20:00	09/25/99
Scan Completed	01:36:53	09/25/99

Robot Operator Signature Kevin A. Carr DATE 9/25/99

UT Operator Signature Carl L Wyf DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W25~~ IR25 (4?)
Weld and Scan Type = NOZZLE INNER RADIUS TRACKING EXAM
Scan Data File Name = WN293-BIR-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	87.34
END CCW	:	-179.90	87.34
START CW	:	179.90	87.34
END CCW	:	-179.90	87.34

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	87.34	179.90
TOP RIGHT	:	87.34	-179.90
BOTTOM LEFT	:	87.34	-179.90
BOTTOM RIGHT	:	87.34	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 1
Number of Indexes Completed = 1
Scan Area - Original Techniques (sq in) = 33.6
Scan Area - This Scan (sq in) = 33.6
Scan Area - Completed (sq in) = 33.6

	Time	Date
Scan Started	01:52:00	09/25/99
Scan Completed	01:52:00	09/25/99

Robot Operator Signature Kim A. Cor DATE 9/25/99

UT Operator Signature Carl d Wyk DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. 16DM / 16DM DESCRIPTION **Inlet Nozzle Safe end & Inlet Nozzle to Elbow At 293°**

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [signature] 8/29/98

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW
PERP. SCANS IN / OUT

ITEM / AREA Inlet Nozzle Safe end & Inlet Nozzle to Elbow at 293°

WELD NO. 16DM / 16DM

BEAM ANGLES

BEAM DIRECTION	70°L		45°L IN		45°L OUT		45°S IN		45°S OUT	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100								
CW	100	100								
UP (IN)	100	100		100(1)				100(1)		
DOWN (OUT)	100	100				100(1)				100(1)
BORE AXIAL										

(1) OD Equivalency

ANALYST [illegible] 9/29/97

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN293-NS-IN	W25	360 - 0	88.45 - 110.8		CSW	II	9-24-99	
WN293-IRS-IN	IR25	88.5 - 97.45	360 - 0		CSW	II	9-25-99	
WN293-BIR-IN	IR25	87.34	360 - 0		CSW	II	9-25-99	
WN293-SE-PAR-IN	16DM	126.5 - 134.3	360 - 0		CSW	II	9-25-99	
WN293-SE-PRP-IN	16DM	360 - 249.5	120 - 137.50		CSW	II	9-25-99	
WN293-SE-PRP-INa	16DM	249.5 - 0	120 - 137.50		CSW	II	9-25-99	

WesDyne

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ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: 16DM

WELD TYPE: INLET NOZZLE SAFE END AT 293°
INLET NOZZLE TO ELBOW AT 293°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
WN293-SE-PAR-IN	01	70L CW	X				YZ	9-25-99
	02	70L CCW	X				YZ	9-25-99
WN293-SE-PRP-IN	01	70L IN	X				YZ	9-25-99
	02	70L OUT	X				YZ	9-25-99
	03	45L IN	X				YZ	9-25-99
	04	45S IN	X				YZ	9-25-99
	05	45L OUT	X				YZ	9-25-99
	06	45S OUT	X				YZ	9-25-99
WN293-SE-PRP-INa	01	70L IN	X				YZ	9-25-99
	02	70L OUT	X				YZ	9-25-99
	03	45L IN	X				YZ	9-25-99
	04	45S IN	X				YZ	9-25-99
	05	45L OUT	X				YZ	9-25-99
	06	45S OUT	X				YZ	9-25-99

SIGNATURE: Yingsuh [illegible] LEVEL: III DATE: 9/25/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W25~~ 16DM/16DM (28)
Weld and Scan Type = NOZZLE SAFE END PARALLEL SCAN
Scan Data File Name = WN293-SE-PAR-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	126.50	179.90
END CCW	:	126.50	-179.90
START CW	:	134.40	179.90
END CCW	:	134.40	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	126.50	179.90
TOP RIGHT	:	134.30	-179.90
BOTTOM LEFT	:	126.50	-179.90
BOTTOM RIGHT	:	134.30	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 699.8
Scan Area - This Scan (sq in) = 699.8
Scan Area - Completed (sq in) = 699.8

	Time	Date
Scan Started	02:09:47	09/25/99
Scan Completed	02:24:28	09/25/99

Robot Operator Signature Kevin A. Carr DATE 9/25/99

UT Operator Signature [illegible] DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W25~~ 16DM/16DM (Y6)
Weld and Scan Type = NOZZLE SAFE END PERPENDICULAR SCAN
Scan Data File Name = WN293-SE-PRP-INaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	120.00
END CCW	:	-179.90	120.00
START CW	:	179.90	137.30
END CCW	:	-179.90	137.30

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	0.00	120.00
TOP RIGHT	:	1.00	120.00
BOTTOM LEFT	:	0.00	137.30
BOTTOM RIGHT	:	1.00	137.30
TOP LEFT	:	110.01	120.00
TOP RIGHT	:	360.00	137.30
BOTTOM LEFT	:	110.01	137.30
BOTTOM RIGHT	:	360.00	120.00

Increment Size (in) = 0.24
Number of Indexes Specified = 361
Number of Indexes Completed = 253
Scan Area - Original Techniques (sq in) = 1498.9
Scan Area - This Scan (sq in) = 1498.9
Scan Area - Completed (sq in) = 1050.5

	Time	Date
Scan Started	04:15:34	09/25/99
Scan Completed	04:57:00	09/25/99

Robot Operator Signature Kevin A. Carr DATE 9/25/99

UT Operator Signature [illegible] DATE 9/25/99

Comments FIRST 110° WERE SCANNED AT .125° INCREMENT (.5°)

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W25
Weld and Scan Type = NOZZLE SAFE END PERPENDICULAR SCAN
Scan Data File Name = WN293-SE-PRP-INa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	120.00
END CCW	:	-179.90	120.00
START CW	:	179.90	137.30
END CCW	:	-179.90	137.30

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	120.00
:	110.51	120.00
:	0.00	137.30
:	110.51	137.30

Increment Size (in)	=	0.12
Number of Indexes Specified	=	721
Number of Indexes Completed	=	222
Scan Area - Original Techniques (sq in)	=	1496.8
Scan Area - This Scan (sq in)	=	1496.8
Scan Area - Completed (sq in)	=	460.9

	Time	Date
Scan Started	03:24:22	09/25/99
Scan Completed	04:03:24	09/25/99

Robot Operator Signature Kin A. Can DATE 9/25/99

UT Operator Signature Carl L Wyl DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W26 DESCRIPTION Outlet Nozzle to Shell at 338°

LIMITATIONS NO [ ] YES [X] Nozzle boss

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0
STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [signature] 9/29/98

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS: Tangential

PERP. SCANS: Bore IN/OUT

ITEM / AREA: Outlet Nozzle to Shell at 338°

WELD NO. 26

BEAM ANGLES

BEAM DIRECTION	45°S (1)		60°S (1)		70°L (1)		10°L (2)		50°L (2)	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		43		43		43				
CW		43		43		43				
UP (IN)										
DOWN (OUT)										
BORE AXIAL							89.3	89.3	89.4	89.4

(1) Nozzle Boss Limitation, Tangential Scan
(2) 10°L and 50°L Designed to work together
Combined Coverage – 98.5%

ANALYST [illegible] 9/29/98

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN338-NS-ON	W26	360 - 0	85.5 - 110.5		LCH	II	9-25-99	
WN338-IRS-ON	IR26	85.9 - 97.10	360 - 0		LCH	II	9-25-99	
WN338-BIR-ON	IR26	84.9	360 - 0		LCH	II	9-25-99	
WN338-SE-PAR-ON	1DM	118.25 - 126.25	360 - 0		LCH	II	9-25-99	
WN338-SE-PRP-ON	1DM	360 - 0	112.0 - 129.0		LCH	II	9-25-99	

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN338-TAN-ON	W26	26.6	180		MFF	II	9-27-99	

WesDyne

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ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W26

WELD TYPE: OUTLET NOZZLE TO SHELL AT 338°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN338-NS-ON	01	10L IN	X				YZ 9-25-99
	02	50L IN	X				YZ 9-25-99

SIGNATURE [illegible] LEVEL III DATE 9/25/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W26

WELD TYPE: OUTLET NOZZLE TO SHELL AT 338°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN338-TAN-ON	01	45S CW	X				SAS 9-27-99
	02	45S CCW	X				SAS 9-27-99
	03	60S CW	X				SAS 9-27-99
	04	60S CCW	X				SAS 9-27-99
	05	70L CW	X				SAS 9-27-99
	06	70L CCW	X				SAS 9-27-99
	07	0	X				SAS 9-27-99

SIGNATURE: SA Sch

LEVEL: III

DATE: 9-27-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W26
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN338-NS-ONaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	85.50
END CCW	:	-179.90	85.50
START CW	:	179.90	110.25
END CCW	:	-179.90	110.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	85.50
:	360.00	85.50
:	0.00	110.25
:	360.00	110.25

Increment Size (in)	=	0.13
Number of Indexes Specified	=	702
Number of Indexes Completed	=	702
Scan Area - Original Techniques (sq in)	=	2281.5
Scan Area - This Scan (sq in)	=	2281.5
Scan Area - Completed (sq in)	=	2281.5

	Time	Date
Scan Started	06:37:31	09/25/99
Scan Completed	08:22:59	09/25/99

Robot Operator Signature _____ DATE 9 25 99

UT Operator Signature Larry C. Hines DATE 9/29/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~WN338~~ W26
Weld and Scan Type = NOZZLE TO SHELL (TAN) PARALLEL SCAN
WN 338 TAN ON)

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		RADIUS (IN)	AZIMUTH (DEGREES)
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	26.60	179.90
TOP RIGHT	:	34.00	179.90
BOTTOM LEFT	:	26.60	-179.90
BOTTOM RIGHT	:	34.00	-179.90

Increment Size (in)	=	0.50
Number of Indexes Specified	=	16
Number of Indexes Completed	=	16
Scan Area - Original Techniques (sq in)	=	1536.6
Scan Area - This Scan (sq in)	=	1538.3
Scan Area - Completed (sq in)	=	1538.3

	Time	Date
Scan Started	01:31:43	09/27/99
Scan Completed	01:44:45	09/27/99

Robot Operator Signature _____ DATE 9-27-99

UT Operator Signature _____ DATE 9-27-99

Comments Paragon W/N 338 TAN ON MATCHES TOOL FILE
WN 338 TAN ON AAAAA

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. IR26 DESCRIPTION Outlet Nozzle IR at 338°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST Yingle Zhang 9/29/99

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS N/A

PERP. SCANS CW / CCW

ITEM / AREA Outlet Nozzle IR at 338°

WELD NO. IR26

BEAM ANGLES

BEAM DIRECTION	70°L									
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		93								
CW		93								
UP (IN)										
DOWN (OUT)										
BORE AXIAL										

ANALYST [illegible] 9/29/98

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN338-NS-ON	W26	360 - 0	85.5 - 110.5		LCH	II	9-25-99	
WN338-IRS-ON	IR26	85.9 - 97.10	360 - 0		LCH	II	9-25-99	
WN338-BIR-ON	IR26	84.9	360 - 0		LCH	II	9-25-99	
WN338-SE-PAR-ON	1DM	118.25 - 126.25	360 - 0		LCH	II	9-25-99	
WN338-SE-PRP-ON	1DM	360 - 0	112.0 - 129.0		LCH	II	9-25-99	

WesDyne

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ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: IR26

WELD TYPE: OUTLET NOZZLE IR AT 338°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
WN338-IRS-ON	01	70L CW	X				YZ	9-25-99
	02	70L CCW	X				YZ	9-25-99
WN338-BIR-ON	01	70L CW	X				YZ	9-25-99
	02	70L CCW	X				YZ	9-25-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/25/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W26~~ IR 26 (R8)
Weld and Scan Type = NOZZLE INNER RADIUS SUPLEMENTAL EXAM
Scan Data File Name = WN338-IRS-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	85.90	179.90
END CCW	:	85.90	-179.90
START CW	:	97.10	179.90
END CCW	:	97.10	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	85.90	179.90
TOP RIGHT	:	97.13	-179.90
BOTTOM LEFT	:	85.90	-179.90
BOTTOM RIGHT	:	97.13	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 39
Number of Indexes Completed = 39
Scan Area - Original Techniques (sq in) = 1195.7
Scan Area - This Scan (sq in) = 1195.7
Scan Area - Completed (sq in) = 1195.7

	Time	Date
Scan Started	08:41:15	09/25/99
Scan Completed	09:02:47	09/25/99

Robot Operator Signature _____ DATE 25 Sep 99

UT Operator Signature _____ DATE 9-25-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W26~~ IR 26 (48)
Weld and Scan Type = NOZZLE INNER RADIUS TRACKING EXAM
Scan Data File Name = WN338-BIR-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	84.90
END CCW	:	-179.90	84.90
START CW	:	179.90	84.90
END CCW	:	-179.90	84.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	84.90	179.90
TOP RIGHT	:	84.90	-179.90
BOTTOM LEFT	:	84.90	-179.90
BOTTOM RIGHT	:	84.90	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 1
Number of Indexes Completed = 1
Scan Area - Original Techniques (sq in) = 33.8
Scan Area - This Scan (sq in) = 33.8
Scan Area - Completed (sq in) = 33.8

	Time	Date
Scan Started	09:09:42	09/25/99
Scan Completed	09:09:42	09/25/99

Robot Operator Signature _____ DATE 9/25/99

UT Operator Signature _____ DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. 1DM / 1DM DESCRIPTION **Outlet Nozzle Safe end & Outlet Nozzle to pipe At 338°**

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [signature] 9/29/99

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

ITEM / AREA: Outlet Nozzle Safe end & Outlet Nozzle to pipe at 338°

DIRECTION / ORIENTATION

PARALLEL SCANS: CW / CCW

PERP. SCANS: IN / OUT

WELD NO. 1DM / 1DM

BEAM ANGLES

BEAM DIRECTION	70°L		45°L IN		45°L OUT		45°S IN		45°S OUT	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100								
CW	100	100								
UP (IN)	100	100		100(1)				100(1)		
DOWN (OUT)	100	100				100(1)				100(1)
BORE AXIAL										

(1) O.D. Surface Alternative

ANALYST [signature] 9/29/98

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN338-NS-ON	W26	360 - 0	85.5 - 110.5		LCH	II	9-25-99	
WN338-IRS-ON	IR26	85.9 - 97.10	360 - 0		LCH	II	9-25-99	
WN338-BIR-ON	IR26	84.9	360 - 0		LCH	II	9-25-99	
WN338-SE-PAR-ON	1DM	118.25 - 126.25	360 - 0		LCH	II	9-25-99	
WN338-SE-PRP-ON	1DM	360 - 0	112.0 - 129.0		LCH	II	9-25-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: 1DM

WELD TYPE: OUTLET NOZZLE SAFE END AT 338°
OUTLET NOZZLE TO PIPE AT 338°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
WN338-SE-PAR-ON	01	70L CW	X				YZ	9-25-99
	02	70L CCW	X				YZ	9-25-99
WN338-SE-PRP-ON	01	70L IN	X				YZ	9-25-99
	02	70L OUT	X				YZ	9-25-99
	03	45L IN	X				YZ	9-25-99
	04	45S IN	X				YZ	9-25-99
	05	45L OUT	X				YZ	9-25-99
	06	45S OUT	X				YZ	9-25-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/25/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W36~~ 1DM/1DM (Y2)
Weld and Scan Type = NOZZLE SAFE END PARALLEL SCAN
Scan Data File Name = WN338-SE-PAR-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	118.25	179.90
END CCW	:	118.25	-179.90
START CW	:	126.25	179.90
END CCW	:	126.25	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	118.25	179.90
TOP RIGHT	:	126.05	-179.90
BOTTOM LEFT	:	118.25	-179.90
BOTTOM RIGHT	:	126.05	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 737.9
Scan Area - This Scan (sq in) = 737.9
Scan Area - Completed (sq in) = 737.9

	Time	Date
Scan Started	09:24:29	09/25/99
Scan Completed	09:39:12	09/25/99

Robot Operator Signature Scott Potter DATE 9/25/99

UT Operator Signature Larry Cathcart DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W26
Weld and Scan Type = NOZZLE SAFE END PERPENDICULAR SCAN
Scan Data File Name = WN338-SE-PRP-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	112.00
END CCW	:	-179.90	112.00
START CW	:	179.90	129.00
END CCW	:	-179.90	129.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	112.00
:	360.00	129.00
:	0.00	129.00
:	360.00	112.00

Increment Size (in)	=	0.13
Number of Indexes Specified	=	702
Number of Indexes Completed	=	702
Scan Area - Original Techniques (sq in)	=	1551.4
Scan Area - This Scan (sq in)	=	1602.2
Scan Area - Completed (sq in)	=	1551.4

	Time	Date
Scan Started	10:56:59	09/25/99
Scan Completed	12:37:35	09/25/99

Robot Operator Signature Scott A Roth DATE 9 25 99

UT Operator Signature Larry C. Hines DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W27 DESCRIPTION Outlet Nozzle to Shell at 22°

LIMITATIONS NO [ ] YES [X] Nozzle boss

RESULTS

NI	NRI	RI
[ ]	[X]	[ ]

NO. OF INDICATIONS 0
STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [signature] 9/29/99

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS: Tangential

PERP. SCANS: Bore IN/OUT

ITEM / AREA: Outlet Nozzle to Shell at 22°

WELD NO. 27

BEAM ANGLES

BEAM DIRECTION	45°S (1)		60°S (1)		70°L (1)		10°L (2)		50°L (2)	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		43		43		43				
CW		43		43		43				
UP (IN)										
DOWN (OUT)										
BORE AXIAL							89.3	89.3	89.4	89.4

(1) Nozzle Boss Limitation, Tangential Scan
(2) 10°L and 50°L Designed to work together
Combined Coverage – 98.5%

ANALYST [illegible] 9/29/98

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN22-IRS-ONa	IR27	85.9 - 97.1	360 - 0		LCH	II	9-25-99	
WN22-BIR-ON	IR27	84.9	360 - 0		LCH	II	9-25-99	
W22-SE-PAR-ON	1DM	118.25	360 - 0		CSW	II	9-25-99	
W22-SE-PRP-ON	1DM	360 - 291.29	112 - 129		CSW	II	9-25-99	
WN22-SE-PRP-ONa	1DM	291 - 70	112 - 129		CSW	II	9-25-99	
WN22-SE-PRP-ONb	1DM	70.2 - 0	112 - 129		CSW	II	9-25-99	
RWN22-NS-ON	W27	360 - 180	85.5 - 110.25		CSW	II	9-25-99	
RWN22-NS-ONa	W27	180 - 0	85.5 - 110.25		CSW	II	9-25-99	

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN22-TAN-ON	W27	26.6	180		MFF	II	9-27-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W27

WELD TYPE: OUTLET NOZZLE TO SHELL AT 22°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
RWN22-NS-ON	01	10L IN		X			SAS 9-26-99
	02	50L IN		X			SAS 9-26-99
RWN22-NS-ONa	01	10L IN		X			SAS 9-26-99
	02	50L IN		X			SAS 9-26-99

SIGNATURE: SA Sal

LEVEL: III

DATE: 9-26-99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W27

WELD TYPE: OUTLET NOZZLE TO SHELL AT 22°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN22-TAN-ON	01	45S CW	X				SAS 9-27-99
	02	45S CCW	X				SAS 9-27-99
	03	60S CW	X				SAS 9-27-99
	04	60S CCW	X				SAS 9-27-99
	05	70L CW	X				SAS 9-27-99
	06	70L CCW	X				SAS 9-27-99
	07	0	X				SAS 9-27-99

SIGNATURE: SA Sal

LEVEL: III

DATE: 9-27-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....
SITE .....
OUTAGE .....
VESSEL TYPE .....

Site Weld ID = W27
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN22-NS-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	85.50
END CCW	:	-179.90	85.50
START CW	:	179.90	110.25
END CCW	:	-179.90	110.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	0.00	85.50
TOP RIGHT	:	360.00	110.25
BOTTOM LEFT	:	0.00	110.25
BOTTOM RIGHT	:	360.00	85.50

TOP LEFT	:	0.00	85.50
TOP RIGHT	:	360.00	110.25
BOTTOM LEFT	:	0.00	110.25
BOTTOM RIGHT	:	360.00	85.50

Increment Size (in) = 0.13
Number of Indexes Specified = 725
Number of Indexes Completed = 362
Scan Area - Original Techniques (sq in) = 2262.5
Scan Area - This Scan (sq in) = 2356.2
Scan Area - Completed (sq in) = 1176.5

	Time	Date
Scan Started	14:58:46	09/25/99
Scan Completed	16:43:59	09/25/99

Robot Operator Signature _____ DATE 25 Sep 99

UT Operator Signature Larry C. Hines DATE 9-25-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....
SITE .....
OUTAGE .....
VESSEL TYPE .....

Site Weld ID = W27
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN22-NS-ONa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	85.50
END CCW	:	-179.90	85.50
START CW	:	179.90	110.25
END CCW	:	-179.90	110.25

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	0.00	85.50
TOP RIGHT	:	180.73	85.50
BOTTOM LEFT	:	0.00	110.25
BOTTOM RIGHT	:	180.73	110.25

Increment Size (in) = 0.13
Number of Indexes Specified = 725
Number of Indexes Completed = 362
Scan Area - Original Techniques (sq in) = 2262.5
Scan Area - This Scan (sq in) = 2356.2
Scan Area - Completed (sq in) = 1176.5

	Time	Date
Scan Started	21:02:31	09/25/99
Scan Completed	22:07:03	09/25/99

Robot Operator Signature Kevin A. Cam DATE 9/25/99

UT Operator Signature [illegible] DATE 9/25/99

Comments RWN22-NS-ONa + RUN22-NS-ON

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W22
Weld and Scan Type = NOZZLE TO SHELL (TAN) PARALLEL SCAN
W22 TAN ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		RADIUS (IN)	AZIMUTH (DEGREES)
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	26.60	179.90
TOP RIGHT	:	34.00	179.90
BOTTOM LEFT	:	26.60	-179.90
BOTTOM RIGHT	:	34.00	-179.90

Increment Size (in) = 0.50
Number of Indexes Specified = 16
Number of Indexes Completed = 16
Scan Area - Original Techniques (sq in) = 1536.6
Scan Area - This Scan (sq in) = 1538.3
Scan Area - Completed (sq in) = 1538.3

	Time	Date
Scan Started	23:59:49	09/26/99
Scan Completed	00:12:27	09/27/99

Robot Operator Signature _____ DATE 9-27-99

UT Operator Signature _____ DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. IR27 DESCRIPTION Outlet Nozzle IR at 22°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0
STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [signature] 9/29/98

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS N/A

PERP. SCANS CW / CCW

ITEM / AREA Outlet Nozzle IR at 22°

WELD NO. IR27

BEAM ANGLES

BEAM DIRECTION	70°L									
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		93								
CW		93								
UP (IN)										
DOWN (OUT)										
BORE AXIAL										

ANALYST [illegible] 9/28/98

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN22-IRS-ONa	IR27	85.9 - 97.1	360 - 0		LCH	II	9-25-99	
WN22-BIR-ON	IR27	84.9	360 - 0		LCH	II	9-25-99	
W22-SE-PAR-ON	1DM	118.25	360 - 0		CSW	II	9-25-99	
W22-SE-PRP-ON	1DM	360 - 291.29	112 - 129		CSW	II	9-25-99	
WN22-SE-PRP-ONa	1DM	291 - 70	112 - 129		CSW	II	9-25-99	
WN22-SE-PRP-ONb	1DM	70.2 - 0	112 - 129		CSW	II	9-25-99	
RWN22-NS-ON	W27	360 - 180	85.5 - 110.25		CSW	II	9-25-99	
RWN22-NS-ONa	W27	180 - 0	85.5 - 110.25		CSW	II	9-25-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: IR27

WELD TYPE: OUTLET NOZZLE IR AT 22°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN22-IRS-ONa	01	70L CW	X				SAS 9-26-99
	02	70L CCW	X				SAS 9-26-99
WN22-BIR-ON	01	70L CW	X				SAS 9-26-99
	02	70L CCW	X				SAS 9-26-99

SIGNATURE: SA Salv

LEVEL: III

DATE: 9-26-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W87~~ IR27 (YZ)
Weld and Scan Type = NOZZLE INNER RADIUS SUPLEMENTAL EXAM
Scan Data File Name = WN22-IRS-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	85.90	179.90
END CCW	:	85.90	-179.90
START CW	:	97.10	179.90
END CCW	:	97.10	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	85.90	179.90
TOP RIGHT	:	97.13	-179.90
BOTTOM LEFT	:	85.90	-179.90
BOTTOM RIGHT	:	97.13	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 39
Number of Indexes Completed = 39
Scan Area - Original Techniques (sq in) = 1195.7
Scan Area - This Scan (sq in) = 1195.7
Scan Area - Completed (sq in) = 1195.7

	Time	Date
Scan Started	17:20:02	09/25/99
Scan Completed	17:41:38	09/25/99

Robot Operator Signature Frank L. Kegler DATE 9-25-99

UT Operator Signature [illegible] DATE 9-25-99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W27~~ IR27 (97)
Weld and Scan Type = NOZZLE INNER RADIUS TRACKING EXAM
Scan Data File Name = WN22-BIR-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	84.90
END CCW	:	-179.90	84.90
START CW	:	179.90	84.90
END CCW	:	-179.90	84.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	84.90	179.90
TOP RIGHT	:	84.90	-179.90
BOTTOM LEFT	:	84.90	-179.90
BOTTOM RIGHT	:	84.90	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 1
Number of Indexes Completed = 1
Scan Area - Original Techniques (sq in) = 33.8
Scan Area - This Scan (sq in) = 33.8
Scan Area - Completed (sq in) = 33.8

	Time	Date
Scan Started	17:46:17	09/25/99
Scan Completed	17:46:17	09/25/99

Robot Operator Signature Frank R. Keefer DATE 9-25-99

UT Operator Signature [illegible] DATE 9-25-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. 1DM / 1DM DESCRIPTION **Outlet Nozzle Safe end & Outlet Nozzle to pipe At 22°**

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST [signature] 9/29/99

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW
PERP. SCANS IN / OUT

ITEM / AREA Outlet Nozzle Safe end & Outlet Nozzle to pipe at 22°

WELD NO. 1DM / 1DM

BEAM ANGLES

BEAM DIRECTION	70°L		45°L IN		45°L OUT		45°S IN		45°S OUT	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100								
CW	100	100								
UP (IN)	100	100		100(1)				100(1)		
DOWN (OUT)	100	100				100(1)				100(1)
BORE AXIAL										

(1) O.D. Surface Alternative

ANALYST [illegible] 9/29/98

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN22-IRS-ONa	IR27	85.9 - 97.1	360 - 0		LCH	II	9-25-99	
WN22-BIR-ON	IR27	84.9	360 - 0		LCH	II	9-25-99	
W22-SE-PAR-ON	1DM	118.25	360 - 0		CSW	II	9-25-99	
W22-SE-PRP-ON	1DM	360 - 291.29	112 - 129		CSW	II	9-25-99	
WN22-SE-PRP-ONa	1DM	291 - 70	112 - 129		CSW	II	9-25-99	
WN22-SE-PRP-ONb	1DM	70.2 - 0	112 - 129		CSW	II	9-25-99	
RWN22-NS-ON	W27	360 - 180	85.5 - 110.25		CSW	II	9-25-99	
RWN22-NS-ONa	W27	180 - 0	85.5 - 110.25		CSW	II	9-25-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: 1DM

WELD TYPE: OUTLET NOZZLE SAFE END AT 22°
OUTLET NOZZLE TO PIPE AT 22°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN22-SE-PAR-ON	01	70L CW	X				SAS 9-26-99
	02	70L CCW	X				SAS 9-26-99
WN22-SE-PRP-ON	01	70L IN	X				SAS 9-26-99
	02	70L OUT	X				SAS 9-26-99
	03	45L IN	X				SAS 9-26-99
	04	45S IN	X				SAS 9-26-99
	05	45L OUT	X				SAS 9-26-99
	06	45S OUT	X				SAS 9-26-99
WN22-SE-PRP-ONa	01	70L IN	X				SAS 9-26-99
	02	70L OUT	X				SAS 9-26-99
	03	45L IN	X				SAS 9-26-99
	04	45S IN	X				SAS 9-26-99
	05	45L OUT	X				SAS 9-26-99
	06	45S OUT	X				SAS 9-26-99
WN22-SE-PRP-ONb	01	70L IN	X				SAS 9-26-99
	02	70L OUT	X				SAS 9-26-99
	03	45L IN	X				SAS 9-26-99
	04	45S IN	X				SAS 9-26-99
	05	45L OUT	X				SAS 9-26-99
	06	45S OUT	X				SAS 9-26-99

SIGNATURE: SA Sab LEVEL: III DATE: 9-26-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~W22~~ 1DM/1DM (Y-8)
Weld and Scan Type = NOZZLE SAFE END PARALLEL SCAN
Scan Data File Name = WN22-SE-PAR-ON

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	118.25	179.90
END CCW	:	118.25	-179.90
START CW	:	126.25	179.90
END CCW	:	126.25	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	118.25	179.90
TOP RIGHT	:	126.05	-179.90
BOTTOM LEFT	:	118.25	-179.90
BOTTOM RIGHT	:	126.05	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 737.9
Scan Area - This Scan (sq in) = 737.9
Scan Area - Completed (sq in) = 737.9

	Time	Date
Scan Started	18:05:58	09/25/99
Scan Completed	18:20:45	09/25/99

Robot Operator Signature Kevin A. Carr DATE 9/25/99

UT Operator Signature [illegible] DATE 9/25/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = ~~127~~ 1DM/1DM (Y-2)
Weld and Scan Type = NOZZLE SAFE END PERPENDICULAR SCAN
Scan Data File Name = WN22-SE-PRP-ONaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	112.00
END CCW	:	-179.90	112.00
START CW	:	179.90	129.00
END CCW	:	-179.90	129.00

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	289.77	112.00
TOP RIGHT	:	360.00	129.00
BOTTOM LEFT	:	289.77	129.00
BOTTOM RIGHT	:	360.00	112.00

Increment Size (in)	=	0.13
Number of Indexes Specified	=	725
Number of Indexes Completed	=	725
Scan Area - Original Techniques (sq in)	=	1538.5
Scan Area - This Scan (sq in)	=	1602.2
Scan Area - Completed (sq in)	=	1602.2

	Time	Date
Scan Started	18:51:03	09/25/99
Scan Completed	20:36:30	09/25/99

Robot Operator Signature Kevin A. Carr DATE 9/25/99

UT Operator Signature [illegible] DATE 9/25/99

Comments SCANNED 291°-70° IN 1° INCREMENTS
THE REST OF THE SCAN IN ½° INCREMENTS

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. W28 DESCRIPTION Inlet Nozzle to Shell at 67°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
[ ]	[ ]	[X]

NO. OF INDICATIONS 2
STATUS Acceptable

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[X] ASSESSMENT SHEET
[X] ACQUISITION LOG	[X] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS Tangential
PERP. SCANS IN (Bore)

ITEM / AREA Inlet Nozzle to Shell at 67°

WELD NO. 28

BEAM ANGLES

BEAM DIRECTION	45°S		60°S		70°L		10°L		50°L	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		100		100		100				
CW		100		100		100				
UP (IN)										
DOWN (OUT)										
BORE AXIAL							82.11	82.11	91.53	91.53

10°L & 50°L Combined Coverage: 98.5%

ANALYST

WesDyne
International

INDICATION ASSESSMENT

PLANT: INDIAN POINT UNIT: 3

ANALYST: Yingda Z LEVEL: III DATE: 9-26-99

FILE / BUFFER	DISK	WELD NO.	INDICATION NO.	BEAM ANGLE	BEAM DIRECTION	CLASSIFICATION VOLUMETRIC / PLANAR	APPLICABLE "t"	FLAW DEPTH MIN / MAX	LENGTH (L)	SURF. / SUB.	S. DIM.	Y VALUE (S / a)	2a DIM. / a DIM.	a / L VALUE (0.50 MAX)	a / t%	ALLOWABLE a / t%	PEAK MAX AMP (% DAC)	PEAK X (SWP#)	PEAK YB	PEAK ZB	NOTES
WN67-								89.347					1.076				91	336.08			
IN-01		W28	1	10L	IN	P	10.75	90.52	0.504	SUB	5.0	1	0.538	0.5	5	6.5	73	84	90.145	10.747	1
WN67-								91.785					1.188				122	170.6			
INa-01		W28	2	10L	IN	P	10.75	89.821	0.504	SUB	2.0	1	0.594	0.5	5.5	6.5	98	160	91.009	10.92	1

NOTES

(1) Code Allowable per ASME 1983, IWB 3512-1

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN67-NS-IN	W28	360 - 312.5	88.45 - 110.8		CSW	II	9-26-99	
WN67-NS-INa	W28	312 - 91	88.45 - 110.8		CSW	II	9-26-99	
WN67-NS-INb	W28	93 - 0	88.45 - 110.8		CSW	II	9-26-99	
WN67-IRS-IN	IR28	88.5 - 97.45	360 - 0		CSW	II	9-26-99	
WN67-BIR-IN	IR28	88.5	360 - 0		CSW	II	9-26-99	
WN67-SE-PAR-IN	16DM	126.5 - 134.3	360 - 0		CSW	II	9-26-99	
WN67-SE-PRP-IN	16DM	360 - 0	120		LCH	II	9-26-99	

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN67-TAN-IN	W28	20.25	180		MFF	II	9-26-99	
WN67-TAN-INa	W28	35.25	180		MFF	II	9-26-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W28

WELD TYPE: INLET NOZZLE TO SHELL AT 67°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE	
WN67-NS-IN	01	10L IN			X	Reference Assessment Sheet Indication #1	YZ	9-26-99
	02	50L IN	X				YZ	9-26-99
WN67-NS-INa	01	10L IN			X	Reference Assessment Sheet Indication #2	YZ	9-26-99
	02	50L IN	X				YZ	9-26-99
WN67-NS-INb	01	10L IN	X				YZ	9-26-99
	02	50L IN	X				YZ	9-26-99

SIGNATURE: [illegible] LEVEL: III DATE: 9/26/99

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: W28

WELD TYPE: INLET NOZZLE TO SHELL AT 67°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN67-TAN-IN	01	45S CW	X				SAS 9-26-99
	02	45S CCW	X				SAS 9-26-99
	03	60S CW	X				SAS 9-26-99
	04	60S CCW	X				SAS 9-26-99
	05	70L CW	X				SAS 9-26-99
	06	70L CCW	X				SAS 9-26-99
	07	0	X				SAS 9-26-99
WN67-TAN-INa	01	45S CW	X				SAS 9-26-99
	02	45S CCW	X				SAS 9-26-99
	03	60S CW	X				SAS 9-26-99
	04	60S CCW	X				SAS 9-26-99
	05	70L CW	X				SAS 9-26-99
	06	70L CCW	X				SAS 9-26-99

SIGNATURE: SA Sch

LEVEL: III

DATE: 9-26-99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W28
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN67-NS-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	88.45
END CCW	:	-179.90	88.45
START CW	:	179.90	110.80
END CCW	:	-179.90	110.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	0.00	88.45
TOP RIGHT	:	47.50	88.45
BOTTOM LEFT	:	0.00	110.80
BOTTOM RIGHT	:	47.50	110.80

Increment Size (in) = 0.12
Number of Indexes Specified = 721
Number of Indexes Completed = 96
Scan Area - Original Techniques (sq in) = 1949.4
Scan Area - This Scan (sq in) = 1946.7
Scan Area - Completed (sq in) = 259.2

	Time	Date
Scan Started	01:45:51	09/26/99
Scan Completed	02:00:46	09/26/99

Robot Operator Signature [illegible] DATE 9/26/99

UT Operator Signature [illegible] DATE 9/26/99

Comments WN67-NS-IN, a, b

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W28
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN67-NS-IN1

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	88.45
END CCW	:	-179.90	88.45
START CW	:	179.90	110.80
END CCW	:	-179.90	110.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	88.45
:	0.00	110.80
:	0.00	110.80
:	0.00	88.45
:	46.00	88.45
:	46.00	110.80
:	46.00	110.80
:	46.00	88.45
:	48.00	88.45
:	269.02	88.45
:	48.00	110.80
:	269.02	110.80

Increment Size (in)	=	0.24
Number of Indexes Specified	=	361
Number of Indexes Completed	=	224
Scan Area - Original Techniques (sq in)	=	1949.4
Scan Area - This Scan (sq in)	=	1949.4
Scan Area - Completed (sq in)	=	1209.6

	Time	Date
Scan Started	02:08:05	09/26/99
Scan Completed	03:03:17	09/26/99

Robot Operator Signature Kevin A. Carr DATE 9/26/99

UT Operator Signature Carl L Wh DATE 9/26/99

Comments

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W28
Weld and Scan Type = NOZZLE TO SHELL PERPENDICULAR SCAN
Scan Data File Name = WN67-NS-INaa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	88.45
END CCW	:	-179.90	88.45
START CW	:	179.90	110.80
END CCW	:	-179.90	110.80

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	88.45
:	0.00	110.80
:	0.00	110.80
:	0.00	88.45
:	267.02	88.45
:	360.00	110.80
:	267.02	110.80
:	360.00	88.45

Increment Size (in) = 0.12
Number of Indexes Specified = 721
Number of Indexes Completed = 188
Scan Area - Original Techniques (sq in) = 1946.7
Scan Area - This Scan (sq in) = 1946.7
Scan Area - Completed (sq in) = 507.6

	Time	Date
Scan Started	03:12:31	09/26/99
Scan Completed	03:54:54	09/26/99

Robot Operator Signature Kevin A. Carr DATE 9/26/99

UT Operator Signature Carl L Wyk DATE 9/26/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = BK 9-29- ~~WN67~~ W28
Weld and Scan Type = NOZZLE TO SHELL (TAN) PARALLEL SCAN
WN67TANIN, WN67TANINA

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		RADIUS (IN)	AZIMUTH (DEGREES)
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90
START CW	:	85.44	179.90
END CCW	:	85.44	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	20.25	179.90
TOP RIGHT	:	35.25	-179.90
BOTTOM LEFT	:	20.25	-179.90
BOTTOM RIGHT	:	35.25	179.90

Increment Size (in)	=	0.50
Number of Indexes Specified	=	31
Number of Indexes Completed	=	31
Scan Area - Original Techniques (sq in)	=	2719.9
Scan Area - This Scan (sq in)	=	2723.0
Scan Area - Completed (sq in)	=	2723.0

	Time	Date
Scan Started	20:43:24	09/26/99
Scan Completed	21:27:32	09/26/99

Robot Operator Signature _____ DATE 9-26-99

UT Operator Signature _____ DATE 9-26-99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. IR28 DESCRIPTION Inlet Nozzle IR at 67°

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

DIRECTION / ORIENTATION

PARALLEL SCANS CW / CCW

PERP. SCANS

ITEM / AREA Inlet Nozzle IR at 67°

WELD NO. IR28

BEAM ANGLES

BEAM DIRECTION	70°L									
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW		95								
CW		95								
UP (IN)										
DOWN (OUT)										
BORE AXIAL										

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN67-NS-IN	W28	360 - 312.5	88.45 - 110.8		CSW	II	9-26-99	
WN67-NS-INa	W28	312 - 91	88.45 - 110.8		CSW	II	9-26-99	
WN67-NS-INb	W28	93 - 0	88.45 - 110.8		CSW	II	9-26-99	
WN67-IRS-IN	IR28	88.5 - 97.45	360 - 0		CSW	II	9-26-99	
WN67-BIR-IN	IR28	88.5	360 - 0		CSW	II	9-26-99	
WN67-SE-PAR-IN	16DM	126.5 - 134.3	360 - 0		CSW	II	9-26-99	
WN67-SE-PRP-IN	16DM	360 - 0	120		LCH	II	9-26-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: IR28

WELD TYPE: INLET NOZZLE IR AT 67°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN67-IRS-IN	01	70L CW	X				YZ 9-26-99
	02	70L CCW	X				YZ 9-26-99
WN67-BIR-IN	01	70L CW	X				YZ 9-26-99
	02	70L CCW	X				YZ 9-26-99

SIGNATURE: Yingzhe Zhang

LEVEL: III

DATE: 9/26/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W28 IR28
Weld and Scan Type = NOZZLE INNER RADIUS SUPLEMENTAL EXAM
Scan Data File Name = WN67-IRS-INa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	88.50	179.90
END CCW	:	88.50	-179.90
START CW	:	97.40	179.90
END CCW	:	97.40	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	88.50	179.90
TOP RIGHT	:	97.45	-179.90
BOTTOM LEFT	:	88.50	-179.90
BOTTOM RIGHT	:	97.45	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 31
Number of Indexes Completed = 31
Scan Area - Original Techniques (sq in) = 989.4
Scan Area - This Scan (sq in) = 989.4
Scan Area - Completed (sq in) = 989.4

	Time	Date
Scan Started	04:16:45	09/26/99
Scan Completed	04:33:41	09/26/99

Robot Operator Signature Kevin A. Carr DATE 9/26/99

UT Operator Signature Carl L Upp DATE 9/26/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W28 1R28
Weld and Scan Type = NOZZLE INNER RADIUS TRACKING EXAM
Scan Data File Name = WN67-BIR-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	87.34
END CCW	:	-179.90	87.34
START CW	:	179.90	87.34
END CCW	:	-179.90	87.34

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	87.34	179.90
TOP RIGHT	:	87.34	-179.90
BOTTOM LEFT	:	87.34	-179.90
BOTTOM RIGHT	:	87.34	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 1
Number of Indexes Completed = 1
Scan Area - Original Techniques (sq in) = 33.6
Scan Area - This Scan (sq in) = 33.6
Scan Area - Completed (sq in) = 33.6

	Time	Date
Scan Started	04:10:45	09/26/99
Scan Completed	04:10:45	09/26/99

Robot Operator Signature Kevin A. Carr DATE 9/26/99

UT Operator Signature Carl L Vyhr DATE 9/26/99

Comments _____

WesDyne International
Reactor Vessel Weld Results Summary

INDIAN POINT UNIT 3

WELD NO. 16DM / 16DM

DESCRIPTION **Inlet Nozzle Safe end & Inlet Nozzle to Elbow At 67°**

LIMITATIONS NO [X] YES [ ]

RESULTS

NI	NRI	RI
X		

NO. OF INDICATIONS 0

STATUS

EXAM DOCUMENTATION	INDICATION DOCUMENTATION
[X] UDRPS ANALYSIS LOG	[ ] ASSESSMENT SHEET
[X] ACQUISITION LOG	[ ] UDRPS HARD COPY
[X] SCAN PRINTOUT	[ ] OTHER (specify)
[X] COVERAGE BREAKDOWN	

WESDYNE ANALYST

INDIAN POINT UNIT 3

R. V. COVERAGE ESTIMATE BREAKDOWNS

ITEM / AREA: Inlet Nozzle Safe end & Inlet Nozzle to Elbow at 67°

DIRECTION / ORIENTATION

PARALLEL SCANS: CW / CCW

PERP. SCANS: IN / OUT

WELD NO. 16DM / 16DM

BEAM ANGLES

BEAM DIRECTION	70°L		45°L IN		45°L OUT		45°S IN		45°S OUT	
	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME
CCW	100	100								
CW	100	100								
UP (IN)	100	100		100(1)				100(1)		
DOWN (OUT)	100	100				100(1)				100(1)
BORE AXIAL										

(1) OD Equivalency

ANALYST

WesDyne

International

DATA ACQUISITION LOG

PLANT / UNIT	INTERVAL:	PERIOD:	OUTAGE:
INDIAN POINT #3	2	3	2

PROCEDURE:	REVISION:	FIELD CHANGE
INT-ISI-254	0	2

DATASET NAME	WELD #	INDEX START ABSOLUTE "X"	SCAN START ABSOLUTE "Y"	ODISK NUMBER	OPERATOR	LEVEL	DATE	COMMENTS
WN67-NS-IN	W28	360 - 312.5	88.45 - 110.8		CSW	II	9-26-99	
WN67-NS-INa	W28	312 - 91	88.45 - 110.8		CSW	II	9-26-99	
WN67-NS-INb	W28	93 - 0	88.45 - 110.8		CSW	II	9-26-99	
WN67-IRS-IN	IR28	88.5 - 97.45	360 - 0		CSW	II	9-26-99	
WN67-BIR-IN	IR28	88.5	360 - 0		CSW	II	9-26-99	
WN67-SE-PAR-IN	16DM	126.5 - 134.3	360 - 0		CSW	II	9-26-99	
WN67-SE-PRP-IN	16DM	360 - 0	120		LCH	II	9-26-99	

WesDyne

International

ANALYSIS LOG

PLANT / UNIT: INDIAN POINT #3

OPTICAL DISK #:

WELD #: 16DM

WELD TYPE: INLET NOZZLE SAFE END AT 67°
INLET NOZZLE TO ELBOW AT 67°

DATASET	BUFFER	R.A. / DIR.	N.I.	N.R.I.	R.I.	R.I. RESOLUTION / COMMENTS / LIMITATIONS	ANALYST / DATE
WN67-SE-PAR-IN	01	70L CW	X				YZ 9-26-99
	02	70L CCW	X				YZ 9-26-99
WN67-SE-PRP-IN	01	70L IN	X				YZ 9-26-99
	02	70L OUT	X				YZ 9-26-99
	03	45L IN	X				YZ 9-26-99
	04	45S IN	X				YZ 9-26-99
	05	45L OUT	X				YZ 9-26-99
	06	45S OUT	X				YZ 9-26-99

SIGNATURE: Yingda Zhang LEVEL: III DATE: 9/26/99

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = DK-929 ~~W28~~ 160M/160M
Weld and Scan Type = NOZZLE SAFE END PARALLEL SCAN
Scan Data File Name = WN67-SE-PAR-IN

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		DEPTH (IN)	AZIMUTH (DEGREES)
START CW	:	126.50	179.90
END CCW	:	126.50	-179.90
START CW	:	134.40	179.90
END CCW	:	134.40	-179.90

SCAN AREA/AREAS OBTAINED DURING THE SCAN

TOP LEFT	:	126.50	179.90
TOP RIGHT	:	134.30	-179.90
BOTTOM LEFT	:	126.50	-179.90
BOTTOM RIGHT	:	134.30	179.90

Increment Size (in) = 0.30
Number of Indexes Specified = 27
Number of Indexes Completed = 27
Scan Area - Original Techniques (sq in) = 699.8
Scan Area - This Scan (sq in) = 699.8
Scan Area - Completed (sq in) = 699.8

	Time	Date
Scan Started	04:39:37	09/26/99
Scan Completed	04:54:27	09/26/99

Robot Operator Signature Kevin A. Carr DATE 9/26/99

UT Operator Signature Carl L. Wyatt DATE 9/26/99

Comments _____

WesDyne International
Reactor Vessel Inservice Examination
Scan Parameter Execution

CUSTOMER .....New York Power Authority
SITE .....Indian Point Unit #3
OUTAGE R-10
VESSEL TYPE .....Westinghouse 4 Loop

Site Weld ID = W28
Weld and Scan Type = NOZZLE SAFE END PERPENDICULAR SCAN
Scan Data File Name = WN67-SE-PRP-INa

SCAN AREA PER THE ORIGINAL TECHNIQUES

UDRPS SCAN AREA DEFINITION		AZIMUTH (DEGREES)	DEPTH (IN)
START CW	:	179.90	120.00
END CCW	:	-179.90	120.00
START CW	:	179.90	137.30
END CCW	:	-179.90	137.30

SCAN AREA/AREAS OBTAINED DURING THE SCAN

:	0.00	120.00
:	360.00	137.30
:	0.00	137.30
:	360.00	120.00

Increment Size (in)	=	0.12
Number of Indexes Specified	=	721
Number of Indexes Completed	=	721
Scan Area - Original Techniques (sq in)	=	1496.8
Scan Area - This Scan (sq in)	=	1496.8
Scan Area - Completed (sq in)	=	1496.8

	Time	Date
Scan Started	05:35:48	09/26/99
Scan Completed	07:20:26	09/26/99

Robot Operator Signature Scott A Pitt DATE 9 26 99

UT Operator Signature Larry C. Hines DATE 9-26-99

Comments _____