



Entergy Operations, Inc.
P.O. Box B
Killona, LA 70066
Tel 504 739 6242

James J. Fisicaro
Director,
Nuclear Safety
Waterford 3

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October 10, 1996

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Reporting of Special Report

Gentlemen:

Attached is Special Report Number SR-96-002-00, Steam Generator Eddy Current Examination for 7th Refueling, for Waterford Steam Electric Station Unit 3. This Special Report is submitted in accordance with Technical Specifications 4.4.4.5 b and 6.9.2.

If you have any questions concerning the above, please contact myself at (504) 739-6242 or J. E. Howard at (504) 739-6327.

Very truly yours,

J.J. Fisicaro
Director
Nuclear Safety

CMD/DMU/tjs
Attachment

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cc: L.J. Callan, NRC Region IV
C.P. Patel, NRC-NRR
A.L. Garibaldi
J.T. Wheelock - INPO Records Center
R.B. McGehee
N.S. Reynolds
NRC Resident Inspectors Office
Administrator - LRPD

**ATTACHMENT A
SPECIAL REPORT
SR-96-002-00**

**STEAM GENERATOR EDDY CURRENT EXAMINATION
(7TH REFUELING)**

INTRODUCTION

Inservice eddy current examination of Waterford 3 Steam Generator (S/G) tubing was completed by ABB-CE on October 11, 1995. This report is submitted in accordance with Technical Specification 4.4.4.5.b, which requires the complete results of this inspection to be submitted in a special report pursuant to Technical Specification 6.9.2, within 12 months following the inspection.

The eddy current testing examination program was performed to meet the requirements of Technical Specification 4.4.4.0. Waterford 3 performed a 20% planned geometric random sample full length bobbin coil examination of each steam generator. Additionally, Waterford 3 performed a 500 tube per S/G augmented full length bobbin coil inspection of special interest areas: previously degraded tubes; tubes adjacent to stay rods; bundle peripheral; and preventive plugged region. S/G hot leg top of the tubesheet expansion transition 20% planned random sample examinations were performed utilizing the Zetec Plus Point 3-coil designed with a 0.115 pancake coil and two plus point coils (mid and high frequencies). An augmented scope of 500 tubes per S/G was incorporated into the inspection plan as special interest. This included the following hot leg tube locations: adjacent to stay rods; sludge pile region and bundle peripheral. The tubesheet Plus Point examination scanned two inches above and below the top of the tubesheet plane.

As a result of the full length bobbin coil examination in S/G #1, Waterford 3 identified one tube greater than 40% through wall which exhibited greater than 10% additional wear from previous examination. The Refuel #6 data for tube Row 49 Line 53 was previously 38% through wall at vertical strap BW5 (Center Vertical). Per Tech Specs, Waterford 3 entered a Category-2 inspection and expanded by 2S (5F - Tubes) concentrated in two symmetrical areas located on either side of the stay cylinder region (Center). No further bobbin coil expansion was required as result of the Category-2 data.

In response to NRC Generic Letter 95-03, Entergy Operations, Inc. Waterford 3 decided to utilize the plus point probe technology for the hot leg top of tubesheet examination. The program was set-up to perform a 20% sample inspection of each S/G. Expansion criteria was stated in Waterford 3's Generic Letter 95-03 response to inspect 100% of the hot leg top of the tubesheet expansion transition upon identifying one circumferentially oriented indication. Four days into the hot leg top of tubesheet acquisition Waterford 3 identified one circumferentially

oriented indication. The inspection expansion of 100% in both S/G hot legs resulted in identifying seven outside diameter (OD) initiated circumferentially oriented indications.

S/G tube examinations were conducted in accordance with Combustion Engineering (CE) Procedure No. LPL-410-006, Rev. 1 in compliance with the USNRC Regulatory Guide 1.83 and ASME Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," 1980 Edition, with Winter 1981 Addenda and Waterford 3 Technical Specification 3/4.4.4. S/G #1 bobbin coil data identified two tubes with upper bundle wear indications which exceeded the Tech Spec limit of 40% through wall. S/G #2 bobbin coil data revealed that there were no tubes within the 20% sample inspection which exhibited degradation greater than 40% through wall.

The hot leg inspection of 18,018 tubesheet expansion transition regions with the plus point 3-coil probe identified seven circumferentially OD oriented indications. All hot leg top of the tubesheet indications were approximately 20% maximum through wall depth varying over the arc lengths. The arc length extents varied from 40° to 70°. Six of the seven indications were located in S/G #1 primarily within the sludge pile region with the exception of two which were located three tubes in from the bundle periphery. As for S/G #2, one circumferentially oriented indication was identified which was located in the sludge pile region.

As result of the 100% hot leg top of tubesheet plus point expansion in both S/Gs, Waterford 3 identified six "Possible Loose Part" (PLP) indications on the secondary side. These indications show some degree of wear just above the tubesheet plane (Approximately + 2" Above Tubesheet) where the PLPs contact two or three tubes surrounding the object. Waterford 3 administratively removed these six tubes from service by installing stakes on the hot leg and plugs in each plenum.

All bobbin coil pluggable indications and hot leg top of the tubesheet indications were plugged in accordance with ABB-CE Nuclear Operations Traveler No. 2005471-001, "Mechanical Tube Plugging S/G with 0.750" OD 0.048" Wall Tubes," Rev. 0, dated 7/14/95. The steam generator tube plugs were manufactured from thermally treated Inconel-690. Additionally, all tube plug locations were positively identified and video taped verifying correct tube locations.

In addition, Waterford 3 identified a leaking CE mechanically rolled Inconel-690 plug in S/G #1's preventively plugged cold leg batwing region. Tubes in the preventively plugged batwing region were removed from service as a result of predicted mechanical wear at the Anti-Vibration Bars (AVBs). The batwing preventive plugging work was performed by CE prior to commercial operation (8/85). The method of identifying the leaking plug was by routine visual scan of the tube plugs for evidence of boric acid crystal build-up. S/G #1 cold leg tube location Row 41 Line 89 was leaking from the plug OD. As a result, Waterford 3 initiated Condition Report CR-95-0895 and proceeded to remove Row 41 Line 89 tube plug from service by ABB-CE's TIG relaxation process. The plug removal work was performed in accordance with ABB-CE's procedure STD-410-057, "Remote Mechanical Tube Plug Removal Procedure," Rev. 3.

Upon removal of the leaking tube plug, it became apparent that the plug was collapsed. S/G #1 cold leg Row 41 Line 89 tube plug had symmetrically collapsed above the seating surface. Cause of collapse can be attributed to the tube plug installation process utilized by CE back in August 1985 related to a deficient torque roll-out. The tube plugs installed by CE during this batwing preventive plugging campaign were potentially not fully expanded and seated properly against the tube ID. The partially under expanded tube plug provided a primary water leak path into a structurally sound tube. As a method of corrective action was being developed by CE, Waterford 3 ran one full cycle with potentially under expanded tube plugs due to questionable torque roll-out acceptability.

During Refuel #1 (12/86), CE re-rolled one-hundred and forty-nine (149) preventively installed plugs in each plenum. The potential for primary water leakage pass tube plugs increased the probability of encapsulating primary water in sound tubing. The re-rolling process in 1986 trapped primary coolant in the sound tube which upon plant heat-up would flash and pressurize the sound tube and mechanical plug. The expansion of steam in the sound tube eventually collapsed the plug providing another leak path as the tube plug seating surface was affected by the deformed tube plug. On October 7, 1995 Waterford 3 successfully removed the leaking CE mechanically rolled plug and reinstalled a new ABB-CE plug. Waterford 3 will continue to perform visual tubesheet scans for evidence of leaking tube plugs in subsequent refueling outages.

RESULTS OF EXAMINATION

STEAM GENERATOR #1

The Eddy Current Testing Bobbin Coil Inspection of 2,943 tubes in S/G #1 resulted in the following analysis of indications:

- 77 Tubes Less Than 20% Thru Wall
- 64 Tubes Greater Than or Equal to 20% But Less Than 40% Thru Wall
- 2 Tubes Greater Than or Equal to 40% Thru Wall (**Plugged**)

Continuation of S/G #1 ECT Indications:

S/G #1 100% (9,015 Tubes) Top of the Tubesheet Inspection of Expansion Transition Region resulted in the following analysis of **Single Circumferential Indications (SCIs)** and **Possible Loose Parts (PLPs)**:

- **6** Tubes with **Single Circumferential Indications** maximum 20% through wall with 40° to 70° arc extents. **SCIs** were **Stabilized** on the Hot Leg and **Plugged** in both Plenums.
- **4** Tubes with Secondary **Possible Loose Parts (PLPs)** were **Stabilized and (Plugged)**

The following tube listing identifies the indications as a result of Eddy Current Testing tubes in S/G #1 :

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
41	5	8%	6H	
67	11	26%	BW5	INDICATION @ 0.98"
55	13	5%	BW6	
74	14	10%	BW1	
		12%	BW4	
19	15	14%	BW5	INDICATION @ -0.85"
		14%	BW5	INDICATION @ 0.87"
61	15	22%	BW6	INDICATION @ -0.76"
		12%	BW6	INDICATION @ 0.84"
		19%	BW5	INDICATION @ -0.84"
		6%	BW5	INDICATION @ 0.71"
64	16	11%	BW5	
62	18	21%	BW4	INDICATION @ 0.73"
84	18	8%	BW3	
42	20	8%	BW5	

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
81	21	19%	8C	
28	24	32%	6H	INDICATION @ -0.35"
72	24	5%	BW5	
45	25	5%	5C	
67	27	7%	BW5	
71	27	11%	BW4	
77	27	21%	BW6	INDICATION @ -0.65"
		18%	BW6	INDICATION @ 0.84"
		15%	BW5	INDICATION @ -0.67"
		17%	BW5	INDICATION @ 0.78"
		19%	BW4	INDICATION @ -0.54"
66	28	18%	3C	
68	34	24%	4C	INDICATION @ 0.05"
57	35	24%	7H	INDICATION @ 26.79"
61	35	18%	BW5	
		14%	BW6	
105	35	19%	BW5	
80	38	23%	BW6	INDICATION @ -0.91"
		18%	BW4	INDICATION @ 1.10"
82	38	25%	BW6	INDICATION @ -0.71"
		10%	BW5	INDICATION @ -0.65"
113	39	16%	BW7	
42	40	15%	BW5	

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
50	40	10%	BW5	
39	41	23%	BW5	INDICATION @ -0.79"
45	41	15%	BW5	
87	41	24%	BW9	INDICATION @ 2.38"
32	42	22%	4C	INDICATION @ 14.69"
21	45	SCI	TSH	SINGLE CIRCUMFERENTIAL INDICATION @ 0.11". STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
31	45	SCI	TSH	SINGLE CIRCUMFERENTIAL INDICATION @ 0.16". STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
37	45	13%	BW5	
105	45	13%	BW7	
44	46	24%	BW5	INDICATION @ -0.90"
		26%	BW5	INDICATION @ 0.95"
45	49	12%	BW5	
59	49	22%	BW5	INDICATION @ 0.89"

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
128	50	SCI	TSH	SINGLE CIRCUMFERENTIAL INDICATION @ 0.14". STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
129	51	SCI	TSH	SINGLE CIRCUMFERENTIAL INDICATION @ 0.03". STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
46	52	20%	BW5	INDICATION @ 0.60"
50	52	12%	8H	
43	53	13%	BW5	
49	53	50%	BW5	INDICATION @ 0.58" PLUGGED w/INCONEL- 690 MECH.
105	53	20%	BW3	INDICATION @ -0.94"
82	54	27%	BW5	INDICATION @ 0.90"
57	55	12%	BW4	
50	56	21% 13%	BW5 BW5	INDICATION @ 0.75" INDICATION @ -0.78"
126	56	9%	BW2	
51	57	8%	BW4	
85	59	19%	BW4	

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
129	59	22%	BW2	INDICATION @ -0.64"
30	60	12%	BW5	
138	60	19%	9H	
49	61	21%	8H	INDICATION @ -1.38"
26	62	16%	BW9	
84	62	12%	BW3	
118	62	27%	6C	INDICATION @ 7.38"
46	64	25% 14%	BW5 BW1	INDICATION @ -1.02"
43	65	14%	BW5	
139	65	VOL	TSH	VOLUMETRIC INDICATION @ 0.22" DUE TO PLP. STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
44	66	20%	BW5	INDICATION @ 0.87"
50	66	25%	BW5	INDICATION @ -1.04"
51	67	23% 12%	BW4 BW5	INDICATION @ 0.78" INDICATION @ -0.96"
68	68	SCI	TSH	SINGLE CIRCUMFERENTIAL INDICATION @ 0.08". STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
135	67	16%	BW3	
79	69	23%	6H	INDICATION @ 3.26"
46	70	28%	BW5	INDICATION @ 0.66"
139	71	VOL	TSH	VOLUMETRIC INDICATION @ 0.09" DUE TO PLP. STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
138	72	VOL	TSH	VOLUMETRIC INDICATION @ 0.25" DUE TO PLP. STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
140	72	VOL	TSH	VOLUMETRIC INDICATION @ 0.69" DUE TO PLP. STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
145	73	21%	BW1	INDICATION @ 0.84"
53	75	15%	BW6	
146	76	31%	BW1	INDICATION @ 1.83"
51	77	23%	BW4	INDICATION @ 0.95"
133	77	17%	BW3	
		12%	BW4	
68	78	29%	BW6	INDICATION @ 0.95"
146	78	12%	BW4	

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
51	79	21% 18%	BW9 BW9	INDICATION @ -1.77" INDICATION @ 1.36"
78	80	10%	BW5	
146	80	34%	BW1	INDICATION @ -1.87"
82	82	19%	BW5	
141	85	29%	BW3	INDICATION @ -0.89"
58	86	16%	BW9	
60	86	25%	BW9	INDICATION @ 1.36"
62	86	15%	BW9	
80	86	14%	BW9	
64	88	14%	BW9	
146	88	27% 18%	BW1 BW9	INDICATION @ 1.78" INDICATION @ 1.78"
147	89	36%	BW1	INDICATION @ -1.81"
120	90	22%	10H	INDICATION @ -1.47"
146	90	42%	BW1	INDICATION @ 1.80" PLUGGED w/INCONEL- 690 MECH.
147	91	27%	BW9	INDICATION @ 1.82"
54	92	20%	8H	INDICATION @ 0.35"
145	93	13%	BW9	

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
147	93	37%	BW8	INDICATION @ -0.73" PREVENTIVELY PLUGGED w/INCONEL- 690 MECH.
		16%	BW8	INDICATION @ 0.72"
		31%	BW9	INDICATION @ 1.75"
145	95	29%	BW9	INDICATION @ -1.95"
82	96	22%	BW5	INDICATION @ -0.68"
83	97	14%	BW5	
		13%	BW6	
70	98	10%	BW4	
78	98	18%	BW6	
49	99	17%	BW1	
145	99	17%	BW9	
78	100	22%	BW6	INDICATION @ 0.73"
94	100	11%	BW7	
146	100	12%	BW9	
145	101	20%	BW1	INDICATION @ 1.78"
		22%	BW9	INDICATION @ 1.81"
48	102	39%	BW5	INDICATION @ 0.82" PREVENTIVELY PLUGGED w/INCONEL- 690 MECH.
		16%	BW5	INDICATION @ -0.82"
66	102	8%	BW4	

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
72	102	12%	BW4	
144	102	19%	BW9	
123	103	14%	BW2	
145	103	25%	BW1	INDICATION @ 1.78"
		12%	BW2	INDICATION @ -0.41"
		18%	BW7	INDICATION @ 0.69"
		24%	BW8	INDICATION @ 0.62"
		13%	BW9	INDICATION @ -2.00"
		22%	BW9	INDICATION @ 2.00"
82	104	17%	8C	
88	106	10%	BW3	
144	106	14%	BW1	
143	107	8%	BW1	
24	108	23%	BW5	INDICATION @ 0.95"
42	108	26%	BW5	INDICATION @ -0.70"
22	112	3%	BW5	
141	113	26%	BW9	INDICATION @ -1.83"
19	115	25%	1H	INDICATION @ 5.68"
49	115	15%	BW5	INDICATION @ -0.89"
		12%	BW5	INDICATION @ -0.89"

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
135	119	28%	BW2	INDICATION @ -0.68"
		18%	BW2	INDICATION @ 0.71"
		24%	BW3	INDICATION @ 0.93"
		26%	BW4	INDICATION @ -0.71"
		23%	BW4	INDICATION @ 0.96"
72	120	20%	BW4	INDICATION @ 0.83"
45	121	24%	TSH	INDICATION @ 0.93"
		24%	TSH	INDICATION @ 0.95"
133	121	23%	BW2	INDICATION @ -0.89"
		28%	BW2	INDICATION @ 0.80"
		18%	BW3	INDICATION @ -0.65"
74	124	17%	BW5	
		10%	BW6	
99	125	13%	BW3	
133	125	18%	7C	
72	126	22%	BW4	INDICATION @ 0.78"
		9%	BW4	INDICATION @ -0.78"
		16%	BW5	INDICATION @ -0.92"
26	128	SCI	TSH	SINGLE CIRCUMFERENTIAL INDICATION @ 0.17". STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
76	128	23%	BW6	INDICATION @ 0.76"
		15%	BW4	INDICATION @ 0.76"
		10%	BW5	INDICATION @ -0.65"
		15%	BW5	INDICATION @ -0.28"
		11%	BW5	INDICATION @ 0.90"
		19%	BW6	INDICATION @ -0.73"
105	131	15%	BW3	
63	137	10%	BW5	
70	138	24%	BW4	INDICATION @ -0.56"
		28%	BW4	INDICATION @ 0.70"
		32%	BW5	INDICATION @ -0.72"
		22%	BW5	INDICATION @ -0.03"
		31%	BW6	INDICATION @ -0.67"
		35%	BW6	INDICATION @ 0.61"
82	138	34%	BW6	INDICATION @ 0.83"
		13%	BW5	INDICATION @ 0.49"
76	140	24%	BW6	INDICATION @ 0.61"
82	140	12%	BW4	INDICATION @ 0.62"
		19%	BW6	INDICATION @ -0.73"
		13%	BW6	INDICATION @ 0.85"
78	142	16%	BW5	
		18%	BW6	
48	144	25%	BW5	INDICATION @ -0.78"
		14%	BW5	INDICATION @ 1.04"
74	144	14%	BW5	
		16%	BW6	

Continuation of S/G #1 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
78	144	27%	BW4	INDICATION @ -0.83"
		25%	BW4	INDICATION @ 0.45"
		14%	BW5	INDICATION @ -0.56"
		31%	BW5	INDICATION @ 0.03"
		27%	BW6	INDICATION @ 0.88"
84	144	23%	9H	INDICATION @ -1.38"
51	145	14%	8H	
95	145	19%	9C	
81	147	13%	BW6	
83	149	19%	BW7	
60	150	16%	2C	
1	155	18%	TSC	
44	156	17%	BW5	
79	161	11%	BW9	
4	166	26%	TSC	INDICATION @ 22.18"

STEAM GENERATOR #2

The Eddy Current Testing Bobbin Coil Inspection of 2,375 tubes in S/G #2 resulted in the following analysis of indications:

- 75 Tubes Less Than 20% Thru Wall
- 78 Tubes Greater Than or Equal to 20% But Less Than 40% Thru Wall
- 0 No Tubes Greater Than or Equal to 40% Thru Wall

Continuation of S/G #2 ECT Indications:

S/G #2 100% (9,003 Tubes) Top of the Tubesheet Inspection of Expansion Transition Region resulted in the following analysis of **Single Circumferential Indications (SCIs)** and **Possible Loose Parts (PLPs)**:

- **1** Tubes with a **Single Circumferential Indication** maximum 20% through wall with 40° to 70° arc extents. **SCI** was **Stabilized** on the Hot Leg and **Plugged** in both Plenums.
- **2** Tubes with Secondary **Possible Loose Parts (PLPs)** were **Stabilized and (Plugged)**

The following tube listing identifies the indications as a result of Eddy Current Testing tubes in S/G #2 :

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
13	3	15%	BW5	
33	15	8%	BW5	
41	15	31%	TSC	INDICATION @ 8.80"
44	16	32%	BW5	INDICATION @ -1.26"
		9%	BW5	INDICATION @ 0.64"
48	18	26%	BW5	INDICATION @ -0.94"
		8%	BW5	INDICATION @ 0.75"
8	20	10%	2C	
48	20	34%	BW5	INDICATION @ 0.93"
90	20	16%	9H	
76	24	13%	BW4	
		16%	BW5	
		14%	BW6	

Continuation of S/G #2 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
19	25	19%	BW5	INDICATION @ -1.04"
		13%	BW5	INDICATION @ 1.04"
69	25	6%	BW6	
79	25	12%	BW9	
80	26	8%	8C	
81	27	12%	BW6	
80	28	12%	BW6	
103	29	16%	7C	
94	30	14%	9C	
106	30	18%	3C	
46	32	17%	BW5	
81	33	12%	BW9	
46	34	14%	BW5	
63	35	3%	7H	
		3%	3C	
67	35	23%	6H	INDICATION @ 33.42"
69	35	8%	BW5	
83	35	21%	BW5	INDICATION @ 0.79"
		11%	BW7	INDICATION @ -0.93"
		9%	BW7	INDICATION @ 0.76"
84	36	9%	BW4	

Continuation of S/G #2 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
43	37	12%	BW5	INDICATION @ -0.66"
		18%	BW5	INDICATION @ 0.94"
77	37	23%	BW5	INDICATION @ 0.59"
		14%	BW4	INDICATION @ 0.79"
		8%	BW5	INDICATION @ -0.79"
44	40	6%	BW5	
94	40	17%	BW3	
		18%	BW6	
25	43	21%	6H	INDICATION @ 36.42"
80	44	27%	BW4	INDICATION @ -1.03"
39	45	10%	1C	
44	48	19%	BW5	
74	48	25%	BW4	INDICATION @ 0.84"
		21%	BW5	INDICATION @ 0.90"
80	48	14%	BW5	
77	49	16%	BW5	
81	49	23%	BW5	INDICATION @ 0.93"
		21%	BW6	INDICATION @ -0.74"
		12%	BW6	INDICATION @ 0.87"
44	50	13%	BW5	
66	50	27%	BW9	INDICATION @ 1.41"
49	51	38%	BW5	INDICATION @ 1.00"
134	52	14%	BW1	

Continuation of S/G #2 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
107	55	26%	BW5	INDICATION @ -0.06"
		21%	BW5	INDICATION @ 0.67"
		14%	BW6	INDICATION @ -0.89"
82	56	33%	BW5	INDICATION @ -0.86"
94	56	7%	BW4	
110	56	28%	7C	INDICATION @ 10.44"
73	57	29%	BW6	INDICATION @ 0.98"
77	57	17%	BW5	
81	57	21%	BW4	INDICATION @ -0.82"
135	57	6%	BW8	
48	58	32%	BW5	INDICATION @ -0.98"
96	58	SCI	TSH	SINGLE CIRCUMFERENTIAL INDICATION @ 0.07". STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
45	59	19%	3C	
70	60	17%	BW9	
77	61	9%	BW4	INDICATION @ -1.00"
		19%	BW4	INDICATION @ 0.85"
133	61	21%	BW5	INDICATION @ 0.55"
		11%	BW3	INDICATION @ 0.62"
137	61	9%	9C	

Continuation of S/G #2 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
46	64	31%	BW5	INDICATION @ 0.81"
89	65	29%	BW5	INDICATION @ -0.95"
120	66	15%	10H	
46	68	22%	BW5	INDICATION @ -0.81"
		27%	BW5	INDICATION @ 0.73"
43	69	34%	BW5	INDICATION @ 1.04"
		11%	BW5	INDICATION @ -0.70"
141	69	20%	BW7	INDICATION @ 0.53"
48	70	18%	BW5	INDICATION @ -0.73"
		15%	BW5	INDICATION @ 0.93"
77	71	11%	BW4	
		16%	BW5	
92	72	9%	BW5	
120	72	19%	10H	
50	74	20%	8H	INDICATION @ -0.74"
		13%	8C	INDICATION @ -1.49"
49	75	19%	8H	
83	75	31%	2H	INDICATION @ 28.96"
111	75	27%	6H	INDICATION @ 11.34"
141	75	9%	BW1	
121	77	19%	BW5	
145	77	13%	BW8	

Continuation of S/G #2 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
102	78	8%	BW3	
146	78	27%	BW9	INDICATION @ 1.91"
70	80	8%	BW4	
146	80	19%	BW9	
62	82	26%	TSH	INDICATION @ 15.08"
146	82	26%	BW1	INDICATION @ 1.52"
145	83	22%	BW1	INDICATION @ 1.75"
54	84	23%	BW1	INDICATION @ -1.66"
146	84	28%	BW9	INDICATION @ 1.61"
97	85	13%	BW3	
		12%	BW4	
105	85	28%	BW6	INDICATION @ -0.86"
145	85	26%	BW8	INDICATION @ -0.94"
		28%	BW8	INDICATION @ 0.72"
147	85	29%	BW7	INDICATION @ 0.61"
		19%	BW6	INDICATION @ 0.86"
56	86	25%	BW9	INDICATION @ -1.55"
		14%	BW9	INDICATION @ 1.69"
144	86	32%	BW1	INDICATION @ 1.75"
81	87	15%	BW6	

Continuation of S/G #2 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
147	87	25%	BW2	INDICATION @ -0.94"
		9%	BW7	INDICATION @ -0.78"
		21%	BW7	INDICATION @ 0.44"
		17%	BW8	INDICATION @ -1.11"
		34%	BW8	INDICATION @ -0.25"
136	88	36%	5H	INDICATION @ 0.57"
146	88	36%	BW1	INDICATION @ 1.39"
		22%	BW9	INDICATION @ 1.25"
103	89	34%	6C	INDICATION @ 16.81"
145	89	20%	BW8	INDICATION @ -0.89"
		19%	BW8	INDICATION @ 0.83"
73	91	33%	TSH	INDICATION @ 0.74"
147	91	24%	BW8	INDICATION @ 0.00
		18%	BW8	INDICATION @ -0.83"
		13%	BW8	INDICATION @ 0.64"
145	93	14%	BW9	
145	95	13%	BW8	
		12%	BW9	
66	96	18%	BW1	
106	96	25%	7C	INDICATION @ 28.38"
81	97	24%	BW5	INDICATION @ 0.72"
		15%	BW6	INDICATION @ -0.59"
103	97	6%	BW4	
50	100	21%	8H	INDICATION @ -1.31"

Continuation of S/G #2 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
49	101	12%	8H	
145	101	8%	BW3	
50	102	23%	8H	INDICATION @ -1.08"
69	103	36%	BW4	INDICATION @ 0.00"
		25%	BW6	INDICATION @ -0.72"
143	103	9%	BW9	
145	103	13%	BW9	
92	106	34%	1H	INDICATION @ 2.83"
114	106	19%	BW4	
144	106	26%	BW1	INDICATION @ 2.14"
113	109	19%	BW3	
137	111	9%	BW8	
56	112	27%	4H	INDICATION @ 1.57"
135	113	25%	BW8	INDICATION @ -0.14"
30	114	23%	3C	INDICATION @ 25.77"
77	117	23%	BW6	INDICATION @ -0.69"
133	117	26%	BW3	INDICATION @ 0.85"
74	118	25%	BW4	INDICATION @ -0.60"
		30%	BW5	INDICATION @ -0.86"
84	120	15%	TSC	

Continuation of S/G #2 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
83	121	26%	BW4	INDICATION @ -0.92"
		5%	BW3	INDICATION @ -0.75"
		38%	BW5	INDICATION @ -0.03"
		30%	BW6	INDICATION @ -0.64"
50	122	12%	8H	
37	125	20%	BW5	INDICATION @ -0.58"
41	127	22%	BW5	INDICATION @ 1.06"
131	127	17%	BW1	
82	128	27%	BW5	INDICATION @ 0.92"
		17%	BW4	INDICATION @ 0.89"
		20%	BW6	INDICATION @ 0.92"
49	131	37%	BW5	INDICATION @ -0.61" PREVENTIVELY PLUGGED w/Mech. INCONEL-690
125	133	13%	BW4	
124	134	17%	10C	
		12%	7C	
		18%	6C	
41	139	18%	BW5	
16	140	26%	BW1	INDICATION @ -0.92"
37	141	11%	BW5	
109	141	19%	BW5	
45	143	36%	BW5	INDICATION @ 0.56"

Continuation of S/G #2 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
105	143	21% 15%	BW3 BW6	INDICATION @ 0.72" INDICATION @ -0.72"
45	145	28% 24%	BW5 BW5	INDICATION @ -0.91" INDICATION @ 0.75"
52	146	16%	4C	
47	147	22% 14%	BW5 BW5	INDICATION @ 0.70" INDICATION @ -0.92"
91	147	18%	9C	
41	149	27%	BW5	INDICATION @ 0.86"
43	149	21%	BW5	INDICATION @ 0.89"
49	149	27%	BW5	INDICATION @ 0.89"
73	149	VOL	TSH	VOLUMETRIC INDICATION @ 0.04" DUE TO PLP. STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
101	149	21% 22%	9C 9C	INDICATION @ -1.00" INDICATION @ 0.77"
72	150	VOL	TSH	VOLUMETRIC INDICATION @ 0.69" DUE TO PLP. STABILIZED & PLUGGED w/INCONEL-690 MECH. IN EACH PLENUM.
37	155	21%	BW5	INDICATION @ -0.81"
49	155	36%	BW5	INDICATION @ 0.85"

Continuation of S/G #2 ECT Indications:

<u>ROW</u>	<u>LINE</u>	<u>%THRU WALL</u>	<u>LOCATION</u>	<u>COMMENTS</u>
37	157	21%	BW5	INDICATION @ -0.83"
		14%	BW5	INDICATION @ 0.89"
38	158	15%	BW5	
70	160	18%	8C	
41	167	20%	BW5	INDICATION @ 0.92"
45	167	24%	BW5	INDICATION @ -0.72"
1	175	18%	1H	
11	175	19%	BW1	

PLANT CONTACT

J.E. Howard Manager Procurement/Programs (504) 739-6327