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APR 19 2011
L-2011-119
10 CFR 50.36

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-00001

Re: Turkey Point Unit 3
Docket No. 50-250
Steam Generator Tube Inspection Report

The attached Turkey Point Unit 3 Refueling Outage 25 Steam Generator Tube Inspection Report is submitted to NRC in accordance with Turkey Point Technical Specification 6.9.1.8, and within 180 days after the initial entry to MODE 4 following completion of the inspections performed in accordance with Technical Specification 6.8.4.j, Steam Generator (SG) Program.

The report includes the following:

a. The scope of inspections performed on each SG,
b. Active degradation mechanisms found,
c. Nondestructive examination techniques utilized for each degradation mechanism,
d. Location, orientation (if linear), and measured sizes (if available) of service induced indications,
e. Number of tubes plugged during the inspection outage for each active degradation mechanism,
f. Total number and percentage of tubes plugged to date,
g. The results of condition monitoring, including the results of tube pulls and in-situ testing,
h. The effective plugging percentage for all plugging in each SG,
i. The primary to secondary leakage rate observed in each SG during the cycle preceding the inspection which is the subject of the report,
j. The calculated accident induced leakage rate from the portion of the tubes below 17.28 inches from the top of the tubesheet for the most limiting accident in the most limiting SG, and
k. The results of monitoring for tube axial displacement (slippage).

A001
NRR

Should there be any questions, please contact Robert Tomonto at (305) 246-7327.

Sincerely,

Michael Kiley
Vice President
Turkey Point Nuclear Plant

Enclosure
Attachments

cc: Regional Administrator, Region II, USNRC.
Senior Resident Inspector, USNRC, Turkey Point Plant

Background

This report is provided in accordance with Turkey Point Unit 3 Technical Specification 6.9.1.8, "Steam Generator Tube Inspection Report" for the inspection conducted October 7th to 12th, 2010 during refueling outage twenty-five (TP3-25). TP3-25 is the third refueling outage in the third (3^{rd}) ISI period (60 EFPM). The replacement Westinghouse model 44F steam generators (SGs) were installed in PTN Unit 3 in April, 1982. The TP3-25 inspection was the second inspection in the 3^{rd} ISI period and also the last scheduled inspection in the 3^{rd} ISI period. The SGs have accumulated 22.19 effective full power years of operation at the TP3-25 refueling outage.

Following the TP3-25 refueling outage, Turkey Point Unit 3 initially entered HOT SHUTDOWN on November 2, 2010.

The TP3-25 SG tube inspections were conducted in all three SGs (3A, 3B, & 3C) as described below.

a. The scope of inspection performed on each steam generator

The scope of this examination is summarized in Table 1 below and is established to meet the following requirements:

a. Technical Specification 6.8.4.j "Steam Generator (SG) Program"
b. Technical Specification 6.8.4.j.d.2

> "Inspect 100% of the tubes at sequential periods of 120, 90, and, thereafter, 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. In addition, inspect 50% of the tubes by the refueling outage nearest the midpoint of the period and the remaining 50% by the refueling outages nearest the end of the period. No SG shall operate for more than 48 effective full power months or two refueling outages (whichever is less) without being inspected."

c. Steam Generator Management Program: Pressurized Water Reactor Steam Generator Examination Guidelines: Revision 7. EPRI, Palo Alto, CA: 2007. 1013706.

The TP3-25 inspections are intended to satisfy the surveillance requirement for the 2nd half of the 3rd ISI Period.

The basis for bobbin and +Point™ tube examinations is given in Table 1.

TABLE 1
BASIS FOR TUBE EXAMINATION SAMPLES

Technique	Examination Sample	Required or Supplemental	Basis	Potential Degradation
Bobbin	100% full length in rows 3 and higher. Row 1 & 2 examinations were limited to the hot leg and cold leg straight sections.	Required	Degradation Assessment	Wear/ ODSCC
	Screening of 100% of dings ≤ 5 volts in straight sections (verticals). This included tubes with low-voltage u-bend offset (LVU) tubes per AREVA FDMS (1)	Required	Degradation Assessment	ODSCC
+Point™	50% of the hot leg tubesheet to the extent of TTS +3.00 to -17.28 inches. This included minimum 50% sample of BLG & OXP indications within the TS. The hot leg full depth tubesheet examination included one unexpanded tube in SG 3A, two unexpanded tubes in SG 3B, and five unexpanded tubes in SG 3C identified with previous NTE indications (No Tube Expansion) that required a full tubesheet inspection from TEH to TSH +3.00 Inches. Note: Unexpanded tubes required plugging, based on LAR 241 (2) to limit tubesheet inspection to a depth of 17.28".	Required Required	ENG CSI-2.2, Rev. 32, Checklist item 1.D, and the Degradation Assessment.	Foreign Object Wear PWSCC ODSCC
	All Hot Leg and Cold Leg Periphery Expansion Transitions - +3"/-2" from top of tubesheet. "Periphery Tubes" are defined as the two outer-most peripheral tubes exposed to the annulus, and all open row 1 and 2 tubes in columns 1-92.	Required	ENG CSI-2.2, Rev. 32, Checklist item 1.D., and the Degradation Assessment.	Foreign Object Wear
	Cold Leg full depth tubesheet: One unexpanded tube in SG 3B identified with previous NTE indications (No Tube Expansion) required a full tubesheet inspection from TEC to TSC +3.00 Inches. Note: Unexpanded tubes required plugging, based on LAR 241 (2) to limit tubesheet inspection to a depth of 17.28".	Required	ENG CSI-2.2, Rev. 32, Checklist item 1.D., and the Degradation Assessment.	PWSCC ODSCC
	Tight radius u-bends – -50% of row 1 and 2 (not inspected in prior inspection)	Required	Degradation Assessment.	PWSCC ODSCC
	50% of hot leg freespan dings > 5 volts between TSH and 06H +1.00" (not inspected in prior inspection)	Required	Degradation Assessment.	PWSCC ODSCC
	50% of u-bend dings (not inspected in prior inspection)	Required	Degradation Assessment.	PWSCC ODSCC
	50% of hot leg dents/dings at structures (not inspected in prior inspection)	Required	Degradation Assessment.	PWSCC ODSCC

(1) AREVA FDMS is AREVA's Data Management System

b. Active degradation mechanism found

The TP3-25 bobbin and +Point™ examination results for Turkey Point Unit 3 identified mechanical wear degradation at the following locations:

- Wear at anti-vibration bars
- Wear at tube support plates
- Wear at flow baffle plates

Other than wear degradation as discussed above, there were no indications of any tube degradation in the +Point™ probe examination samples identified in Table 1.

c. Nondestructive examination techniques utilized for each degradation mechanism

Turkey Point Unit 3 Examination Techniques for TP3-25 (October 2010)

TABLE 2

	Technique	Industry Qualification	Damage Mechanism	Demonstrated Applicability	Extended Applicability	Depth Sizing Technique Applied	Site-Specific Review Deemed Acceptable	
							Detection	Sizing
1	Bobbin	96001.1 Revision 11	Thinning	Top of Tubesheet and TSP	Above Tubesheet	Differential Mix Phase Analysis	Yes	For Information
2	Bobbin	96004.1 Revision 13	Wear	AVBs TSPs Diagonal and Vertical Straps	None	Differential Mix Amplitude Analysis (Using Vert-Max)	Yes	For Service
3	Bobbin	96004.2 Revision 13	Wear	AVBs TSPs Diagonal and Vertical Straps	None	Absolute Mix Amplitude Analysis (Using Vert-Max)	Yes	For Information
4	Bobbin	96005.2 Revision 9	Pitting	Freespan in the Presence of Copper	Sludge Pile	Not Sized with Bobbin	Yes	For Information
5	Bobbin	24013.1 Revision 2	ODSCC	Freespan Dings ≤5.00 Volts	None	Not Sized with Bobbin	Yes	For Information
6	Bobbin	I-28411 Revision 2	Axial ODSCC	Drilled TSP With / Without Dents < 2.0 Volts	None	Not Sized with Bobbin	Yes	For Information
7	Bobbin	I-28412 Revision 2	Axial ODSCC	Freespan	None	Not Sized with Bobbin	Yes	For Information
8	Bobbin	I-28413 Revision 2	Axial ODSCC	Broached TSP, Sludge Pile	None	Not Sized with Bobbin	Yes	For Information
9	Bobbin	27091.2 Revision 0	PLP Wear	PLP Wear (part not present)	Part Present	N/A	Yes	N/A
10	+Point™	96511.1/.2 Revision 16	PWSCC	Low Row U-bend	None	Single Frequency Phase Analysis	Yes	For Information
11	+Point™	20510.1 Revision 7	Circ PWSCC	Expansion Transition	Dent, Dings, Non-Dented Support Structures, Tubesheet	Single Frequency Phase Analysis	Yes	For Information
12	+Point™	20511.1 Revision 8	Axial PWSCC	Expansion Transition	Non-Dented Support Structures, Tubesheet	Single Frequency Phase Analysis	Yes	For Information
13	+Point™	96703.1 Revision 17	Axial PWSCC	Dent	Non-Dented Support Structures, Tubesheet	Single Frequency Phase Analysis	Yes	For Information
14	+Point™	22401.1 Revision 4	Axial ODSCC	Dented Support Structures	None	Single Frequency Phase Analysis	Yes	For Information
15	+Point™	96910.1 Revision 10	Wear	Broached TSP	None	Differential Mix Amplitude Analysis (Using Vert-Max)	Yes	For Service
16	+Point™	21998.1 Revision 4	Volumetric	Freespan	None	Single Frequency Amplitude Analysis (Using Peak-Peak)	Yes	For Service only if non-corrosion
17	+Point™	22842.3 Revision 5	Circ ODSCC	Dented Support Structures	None	Length Sizing using From/To	Yes	For Information
18	+Point™	21410.1* Revision 6	Circ ODSCC	Expansion transition	TSP, Freespan, Sludge Pile, Tubesheet, Dents, Dings, U-bend Axial / Circ **	Single Frequency Phase Analysis	Yes	For Information

* The sizing parameters in EPRI ETSS 21410.1 are equivalent to those listed in EPRI Report TR 107197-P1
** See Section 3.0

Table 2 (Cont.)

	Technique	Industry Qualification	Damage Mechanism	Demonstrated Applicability	Extended Applicability	Depth Sizing Technique Applied	Site-Specific Review Deemed Acceptable	
							Detection	Sizing
19	+Point™	96701.1 Revision 12	Circ PWSCC	Expansion Transition	Dents, Dings, Tubesheet	Single Frequency Amplitude Analysis (Using Peak-Peak) Based on Max Depth Phase	Yes	For Information
20	+Point™	27901.1 27902.1 27903.1 27904.1 27905.1 27906.1 27907.1 Revision 0	PLP Wear	PLP Wear Morphology Dependent (part not present)	None	PLP Wear Morphology Dependent (part not present)	Yes	For Service
21	+Point™	I- 28424 Revision 2	Axial ODSCC	Sludge Pile	Pitting In the Sludge Pile	Not qualified	Yes	No
22	+Point™	I-28425 Revision 2	Axial ODSCC	Freespan, Broached TSP	None	Not qualified	Yes	No
23	+Point™	I-28431 Revision 1	Axial ODSCC	Sludge Pile	None	Single Frequency Amplitude Analysis	No	For Information
24	+Point™	I-28432 Revision 1	Axial ODSCC	Freespan, Broached TSP	None	Single Frequency Amplitude Analysis	No	For Information
25	.115 Pancake	21401.1 Revision 6	Axial ODSCC	All Locations except Ubends, Dents, Expansions	None	Single Frequency Phase Analysis	+Point™ is the primary detection coil	For Information
26	.115 Pancake	21402.1 Revision 6	Circ ODSCC	Expansion Transition	Sludge Pile	Single Frequency Phase Analysis		For Information
27	.115 Pancake	21503.1 Revision 4	Axial PWSCC	Expansion Transition	Sludge Pile	Single Frequency Phase Analysis	+Point™ is the primary detection coil	For Information
28	.115 Pancake	21504.1 Revision 4	Circ PWSCC	Expansion Transition	Sludge Pile	Single Frequency Phase Analysis		For Information
29	.115 Pancake	99998.1 Revision 5	Pitting	Freespan in the Presence of Copper	None	Single Frequency Amplitude Analysis (Using Peak-Peak)	Info only: Use 96005.2 for pits in the sludge pile	For Information
30	.115 Pancake	96911.1 Revision 9	Wear	Broached TSP	PLP Wear	Absolute Mix Amplitude Analysis (Using Vert-Max)	+Point™ is the primary detection coil	For Service
31	.080 HF Pancake	21505.1 Revision 3	Axial PWSCC	Expansion Transition	Sludge Pile	Single Frequency Phase Analysis		For Information
32	.080 HF Pancake	21506.1 Revision 4	Circ PWSCC	Expansion Transition	Sludge Pile	Single Frequency Phase Analysis		For Information
33	+Point™	21409.1 Revision 7	Axial ODSCC	support structures, Freespan region,sludge pile and tubesheet crevice	Expansion Transition Axial / Circ *	Single Frequency Phase Analysis	Yes	For Information

- The sizing parameters in EPRI ETSS 21410.1 are equivalent to those listed in EPRI Report TR 107197-P1.

d. Location, orientation (if linear) and measured sizes (if available) of service induced indications

Please refer to Attachments 2, 3 & 4 for indication listings for SG 3A, 3B and 3C respectively. All wear indications are on the outside surface (OD) of the tubes.

e. Number of tubes plugged during the inspection for each nonconforming condition

(See Next Page)

Turkey point Unit 3 Tube Plugging TP3-25[1]
Table 3

Nonconforming Condition	SG A	SG B	SG C	Total
No Tube Expansion (NTE) for H* criteria	1	3	5	9
Preventative Tube Plug (PTP), or, Tube to Be Plugged (TBP)	0	2[2]	3[3]	5
Total	1	5	8	14

(1) Row 33 column 44 in SG 3A was un-plugged and tested with bobbin and +Point™ to address previous AVB wear. This tube was stabilized and re-plugged, but is not counted in Table 3 above.

(2) Two tubes (R6-C45 and R7-C45) were plugged based on the presence of wear coincident with a small foreign object located at the top of the second cold leg support (02C). A qualified sizing technique is not available to size the tubes for service when a foreign object is still present. The indications in these tubes were sized at 8% and 14%, respectively, for integrity assessment purposes.

(3) Two tubes (R21-C61 & R29-C77) were plugged based on wear adjacent to the lower edge of the 04H and 03H supports, respectively. Tube R30-C45 was PTP based on measured AVB wear at AV3.

f. Total number and percentage of tubes plugged to date

Table 4

Turkey Point Unit 3 Steam Generator Cumulative Tube Plugging Summary TP3-25		
SG	**# Plugged**	**% Plugged**
3A	**48**	**1.5%**
3B	**74**	**2.3%**
3C	**62**	**1.9%**

g. The results of condition monitoring including the results of the tube pulls and in-situ testing

All tubes inspected met the tube integrity performance criteria in TS 6.8.4.j.b and condition monitoring requirements. No tubes required in-situ pressure testing. No tube removal was required.

h. The effective plugging percentage for all plugging in each steam generator

No tube repair methods (i.e. sleeving) are approved for Turkey Point Unit 3 that would have an effect on the effective plugging percentages. Therefore, the effective plugging percentage is equal to the % Plugged in item f. above.

i. The primary to secondary leakage rate in each SG (if it is not practical to assign the leakage to an individual SG, the entire primary to secondary leakage should be conservatively assumed to be from one SG) during the cycle preceding the inspection which is subject to the report.

No primary to secondary leakage was reported during the preceding cycle of operation.

j. The calculated accident induced leakage rate from the portion of the tubes below 17.28 inches from the top of the tubesheet for the most limiting accident in the most limiting SG. In addition, if the calculated accident induced leakage rate from the most limiting SG is less than 1.82 times the maximum operational primary to secondary leakage rate, the report should describe how it was determined

The accident induced leakage rate from the portion of the tubes below 17.28 inches from the top of the tubesheet is calculated as a ratio of observed normal operating leakage that cannot be attributed to a source other than the tubesheet expansion region. For the operating period preceding the TP3-25 inspection, no operational primary-to-secondary leakage has been observed. Further, there are no degradation mechanisms that have the potential for leakage.

For Turkey Point Unit 3, the maximum operational primary to secondary leakage rate from the portion of the tubes below 17.28 inches from the top of the tubesheet is multiplied by a factor of 1.82 to determine the accident induced leakage. Since no operational primary-to-secondary leakage has been observed, the calculated accident induced leakage rate from the portion of the tubes below 17.28 inches from the top of the tubesheet is zero.

Therefore, neither the normal operating leakage limit nor the accident induced leakage limits will be challenged during the next operating period.

k. The results of monitoring for tube axial displacement (slippage). If slippage is discovered, the implications of the discovery and corrective action shall be provided.

Monitoring for tube slippage was completed in accordance with commitment #1 in Ref. 1. No tube slippage was discovered based on the results of the TP3-25 SG inspections.

References

1. FPL Letter # L-2009-209 to the US NRC, dated September 30, 2009 "Turkey Points Unit 3 and 4, Docket Nos. 50-250 and 50-251, Response to Request for Additional Information, License Amendment Request for H*: Alternate Repair Criteria for Steam Generator Tubesheet Expansion Region".

Abbreviations

CSI - Component Support and Inspections
SG - Steam Generator
ISI - In-service Inspection
ECT - Eddy Current Testing
NEI – Nuclear Energy Institute
EPRI – Electric Power Research Institute

Acronyms

H/L - Hot Leg
C/L - Cold Leg
VOL - Volumetric Indication
SVI - Single Volumetric Indication
PIT - Pit Indication
PLP - Possible Loose Part
WAR - Mechanical Wear
TWD - Through Wall Depth
TSH - Tubesheet Hot Leg
TEH - Tube End Hot Leg
TSC - Tubesheet Cold Leg
TEC – Tube End Cold
PTP - Preventative Tube Plug

ADDITIONAL INFORMATION

The following information is included to assist the staff in their review of the information provided in this report.

Secondary Side Inspection

Secondary side inspection information is not required by TS Section 6.9.1.8. However, this information is being provided based on NRC requests for additional information regarding previous reports submitted by FPL in accordance with this specification:

Secondary Side Inspections (SSI) during the TP3-25 refueling outage include the following:

- Upper Bundle Flush (UBF)
- Sludge Lance
- FOSAR (Foreign Object Search and Retrieval)
- Upper Bundle and Top Down Inspection in one SG

Upper bundle flush and sludge lancing was completed in all three steam generators. The processes recovered 49 lbs of sludge from SG 3A, 70.5 lbs from SG 3B and 66.0 lbs from SG 3C. Pre -bundle flush upper bundle and top down inspections were completed in only SG 3B. Deposits observed were very light and therefore, post-flush inspections were not warranted. No abnormalities were noted.

SG 3A

During post-lance inspections of SG 3A, one legacy foreign object was removed from the hot leg at location R14-15 C68-69. (Item 1 in Table 5). No tube damage was identified by visual or ECT methods.

One ECT PLP was investigated at R3 C57. (Item 2 in Table 5). The object was fused to the tubesheet within a hard deposit and could not be removed.

SG 3B

During post-lance inspections of SG 3B, two foreign objects were successfully removed. One item was located in the H/L at R43 C46-47 (Item 11 in Table 5). The second item was in the H/L annulus, but had no tube contact (Item 12 in Table 5). No tube damage was reported by visual or ECT methods.

Several legacy foreign objects were re-investigated for presence, signs of movement, and the possibility of removal. (Items 3,5,6,8,9 in Table 5). These items remain fixed in their locations and were not removed. No tube damage was reported at these locations by visual or ECT methods.

SG 3B (Cont.) Possible Loose Part (PLP) Signals Reported by ECT

Possible Loose Part (PLP) Signals reported during the ECT Exam are investigated during FOSAR operations. During TP3-25, five such PLP indication locations were investigated, and no foreign objects were found at those locations. In SG B, PLP indications were reported during the ECT examination, at the 02C location in tubes R6-C45 and R7-C45. These locations were not accessible due to the location in the tube bundle. Tubes R6-C45 and R7-C45 were plugged based on the presence of wear coincident with the PLP indications. The indications in those tubes were sized at 8% and 14%, respectively, for integrity assessment purposes.

SG 3C

Post sludge lancing inspections in SG 3C identified the three new metallic foreign objects in the H/L tube bundle and annulus (Items 14,16,17 in Table 5). All three objects were removed and no tube damage was observed by ECT or visual.

One legacy foreign object (Item 13 in Table 5) and one new object (Item 15 in Table 5) were seen and are firmly wedged or fused in place. Retrieval attempts were not successful. No tube damage was reported by ECT or visual.

Foreign Object Tracking for SGs A, B, C

Items 2, 3, 5, 6, 8, 9, 13, 15 in Table 5 were unable to be retrieved from the SGs. These items will continue to be actively tracked during future FOSAR inspections.

Items 1, 11,12,14,16,17 in Table 5 were removed from the SGs during the TP3-25 FOSAR inspections and will not be actively tracked in the future.

Items 4 and 7 were not observed in either the TP3-23 or TP3-25 FOSAR inspections. These items have been documented, but will not be actively tracked in future outages.

Item 10 in Table 5 was not observed during the TP3-25 FOSAR inspection. Item 10 will continue to be actively tracked during the next FOSAR inspection.

No tube degradation was associated with any of the objects in Table 5. All objects remaining in the SGs have been evaluated for potential impact on plant operation and tube integrity and were determined to be acceptable for the planned operating period.

Table 5

Item	S/G	Description	Initial Location & Basis	TP3-20 Location & Basis (03/03)	TP3-21 Location & Basis (10/04)	TP3-22 Location & Basis (3/06)	TP3-23 Location & Basis (9/07)	TP3-25 Location & Basis (10/10)
1	3A	2.25" L X 1/8" W Metallic Piece (Previously called tube scale)	H/L R14 C68 & C69	No History, new object TP3-23	No History, new object TP3-23	No History, new Object TP3-23	FOSAR – Observed. No retrieval attempted, 9/16/07	Seen By FOSAR Retrieved 10-10-10
2	3A	.359"L x .05"W object embedded in hard deposit	H/L R3 C57	No History	No History	No History	No History	Seen By ECT Seen by FOSAR New Object Not Retrievable 10-10-10
3	3B	1"X 1/4" SLAG	HL TS; R44 C40, R44 C41, R45 C41, R45 C42 ECT 03/97	Same as initial location & basis	FOSAR - Observed, current location remains unchanged, new dimensions reported 1" x .359". ECT - N/A, these tubes are plugged	FOSAR- Observed Retrieval unsuccessful 3-15-06	FOSAR- Observed Retrieval unsuccessful 9/14/07	FOSAR- Observed Retrieval Unsuccessful 10/13/10
4	3B	<0.365"X0.5"L Shaped Object (CR03-0684)	CL TS; R9 C2 FOSAR 03/03	Same as initial location & basis.	FOSAR-Observed, current location Remains unchanged. ECT Not observed.	FOSAR Observed. Retrieval unsuccessful. 3-15-06	FOSAR-Object not found. 9/14/07	FOSAR-Object not Found. 10/13/10
5	3B	0.5" L x 0.365" Rock like piece	HL TS; R22 C77, R23 C77 FOSAR 10/04	No history object initially observed TP3-21.	FOSAR - Observed, retrieval unsuccessful. Object is fixed ECT – Not observed	FOSAR – Observed. Retrieval unsuccessful. Sludge rock remains. 3-15-06	FOSAR- Observed Retrieval unsuccessful 9/14/07	FOSAR- Observed Retrieval Not Attempted Hard Sludge 10/13/10
6	3B	0.5" L x 0.359" Flake shaped object	CL TS; R1 C72, R1 C73 FOSAR 10/04	No history object initially observed TP3-21.	FOSAR - Observed, retrieval unsuccessful. Object is fixed ECT - Not observed	FOSAR – Observed. Retrieval unsuccessful. Sludge rock remains.3-15-06	FOSAR- Observed Retrieval Unsuccessful 9/14/07	Seen By ECT FOSAR-Observed Hard Deposit Retrieval Unsuccessful 10/13/10
7	3B	.25" L x .25" W Rock shaped object	HL TS; R32 C60, R32 C61, R33 C60, R33 C61 FOSAR 10/04	No history object initially observed TP3-21.	FOSAR - Observed, retrieval unsuccessful. Object is fixed ECT - Observed, no tube wall damage.	FOSAR- Observed Retrieval unsuccessful 3-15-06	FOSAR – Not observed. 9/14/07	FOSAR – Not Observed. 10/13/10
8	3B	Hard sludge ~1" above HL tubesheet On tube itself Scale Embedded in hard pile	HL Tubesheet R3 C43 FOSAR 10/04	No history object initially observed TP3-21.	FOSAR - Observed, Visually verified as hard sludge collar on tube. Retrieval unsuccessful. Observed by ECT, no tube wall damage.	FOSAR Observed. retrieval unsuccessful. Sludge rock remains. 3-15-06	FOSAR – Observed. Retrieval unsuccessful 9/14/07	Seen By ECT Seen By FOSAR Not Retrieved 10/13/10

Table 5 (Cont.)

Item	S/G	Description	Initial Location & Basis	TP3-20 Location & Basis (03/03)	TP3-21 Location & Basis (10/04)	TP3-22 Location & Basis (3/06)	TP3-23 Location & Basis (9/07)	TP3-25 Location & Basis (10/10)
9	3B	Hard sludge On Tubesheet between tubes .395 W x 1/16"High	HL Tubesheet R20 C59 R20 C60 FOSAR 10/04	No history object initially observed TP3-21.	FOSAR - Observed, Visually verified as hard sludge in the area, retrieval unsuccessful. ECT - Not observed	FOSAR – Observed. Broke into smaller pieces during retrieval attempt. 3-15-06	FOSAR – Not observed. 9/14/07	Seen By FOSAR not retrievable 10/13/10
10	3B	.395" x .395" Sludge Rock H/L R30 – C74 / 75	H/L R30 – C74 / 75	No history, object initially observed TP3-22	No history, object initially observed TP3-22.	FOSAR – Sludge rock remains. 3-15-06	FOSAR-Part remains. Observed at R30 C72 C73	FOSAR Not Observed 10-13-10
11	3B	.75"L x .10" Crescent shaped metallic object	H/L R43 C47, R43 C46,	No History	No History	No History	No History	Observed by FOSAR New Item Retrieved 10-13-10
12	3B	3" L x .10 W Metallic wire	H/L Annulus No tube Contact	No History	No History	No History	No History	Observed by FOSAR New Item Retrieved 10-13-10
13	3C	.395"L x .25"W Rock like objec	HL Tubesheet R13 C21 FOSAR 10/04	No history object initially observed TP3-21.	FOSAR - Observed, retrieval unsuccessful. Object fixed ECT - Observed, no tube wall damage.	FOSAR – Observed. Adhered to tubesheet 3-16-06	FOSAR- observed. Rock shaped sludge particulate. 9/18/07	FOSAR Observed Fused to tubesheet 10-7-10
14	3C	1.5"L x .13W Metallic Pin	H/L R38 C37-39	No History	No History	No History	No History	Observed by FOSAR Retrieved10-7-10
15	3C	Flat Object 1"L by .12"W	H/L R33-34 C36-37	No History	No History	No History	No History	Observed by FOSAR New Item Tightly Wedged/Retrieval Unsuccessful 10-7-10
16	3C	3"L x .13 W Metallic Pin	H/L Annulus No tube contact	No History	No History	No History	No History	Observed By FOSAR New Item Retrieved 10-7-10
17	3C	1.5"L x .12W Metallic Pin	H/L R32 C60-61	No History	No History	No History	No History	Observed By FOSAR New Item Retrieved 10-8-10

SG 3A Indication Listings	
Listing Description	**Page No.**
Tubes Plugged Listing	2
Bobbin WEAR at AVB locations 20-100%TWD	2
Bobbin WEAR at AVB locations 1-19% TWD	3
WEAR (WAR) sized by +Point™ probe 1-100% (AVB)	3
WEAR (WAR) sized by +Point™ probe 1-100% (Broach/Baffle)	4

Turkey Point Unit 3 (TP3-25)
SG 3A Tubes Plugged Listing

10/10 - TP3-25

TP3-25 ECT Results for Tubes Repaired by Plugging

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
32	47				NDD				TEH	TSH			15	HOT	720PP
		5.03	41	2	NTE		TSH	+0.00	TEC	TEH			6	HOT	720UL
		5.31	41	2	PID		TSH	+0.00	TEC	TEH	HR		6	HOT	720UL
					PTP				TEC	TEH			6	HOT	720UL
*33	44	0.69	101	P5	WAR		AV3	-0.27	06H	06C	31	96910.1	42	COLD	6801P
		1.50	87	P5	WAR		AV3	+0.28	06H	06C	50	96910.1	42	COLD	6801P
		2.30	75	P5	WAR		AV2	-0.06	06H	06C	64	96910.1	42	COLD	6801P
		0.50	104	P5	WAR		AV2	+0.44	06H	06C	25	96910.1	42	COLD	6801P
		0.73	103	P5	WAR		AV4	-0.19	06H	06C	32	96910.1	42	COLD	6801P
		0.69	105	P5	WAR		AV1	+0.42	06H	06C	31	96910.1	42	COLD	6801P
		0.87	112	P2	TWD	24	AV1	-0.06	TEH	TEC			18	COLD	720UL
		7.82	93	P2	TWD	60	AV2	-0.15	TEH	TEC			18	COLD	720UL
		0.46	96	P2	TWD	18	AV2	+0.36	TEH	TEC			18	COLD	720UL
		1.31	111	P2	TWD	29	AV3	-0.34	TEH	TEC			18	COLD	720UL
		4.57	95	P2	TWD	50	AV3	+0.27	TEH	TEC			18	COLD	720UL
		1.08	126	P2	TWD	26	AV4	-0.25	TEH	TEC			18	COLD	720UL
		7.82	93	P2	PID		AV2	-0.15	TEH	TEC	HR		18	COLD	720UL
					TBP				TEH	TEC			18	COLD	720UL

Total Tubes : 2

*NOTE 1 : Tube 33-44 was de-plugged, inspected with ECT, and re-plugged during TP3-25.

NOTE 2 : Tubes with no tube expansion have "NTE" in the "IND" column. +Point™ depth estimates are in the "UTIL 1" column. Bobbin depth estimates are in the "%TW" column.

Turkey Point Unit 3 (TP3-25)
SG 3A

10/10 - TP3-25

Bobbin WAR at AVB's 20-100%TWD

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
28	59	0.69	69	P2	TWD	21	AV3	+0.00	TEC	TEH			6	HOT	720UL
		0.96	93	P2	TWD	26	AV2	+0.00	TEC	TEH			6	HOT	720UL
30	52	0.86	100	P2	TWD	24	AV3	-0.18	TEC	TEH			6	HOT	720UL
31	44	0.79	98	P2	TWD	21	AV3	+0.35	TEH	TEC			2	COLD	720UL
37	47	1.48	88	P2	TWD	33	AV3	+0.00	TEC	TEH			5	HOT	720UL
38	65	0.63	59	P2	TWD	20	AV3	+0.04	TEC	TEH			7	HOT	720UL

Total Tubes : 5
Total Records: 6

Turkey Point Unit 3 (TP3-25)
SG 3A

10/10 - TP3-25

Bobbin WAR at AVB's 1-19%TWD

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
9	62	0.35	88	P2	TWD	13	AV4	+0.00	TEC	TEH			2	HOT	720UL
22	44	0.31	54	P2	TWD	9	AV4	+0.04	TEH	TEC			1	COLD	720UL
24	10	0.28	146	P2	TWD	8	AV4	-0.11	TEH	TEC			7	COLD	720UL
24	40	0.28	138	P2	TWD	8	AV2	-0.35	TEH	TEC			1	COLD	720UL
25	67	0.30	110	P2	TWD	11	AV2	-0.24	TEC	TEH			7	HOT	720UL
28	59	0.35	97	P2	TWD	13	AV1	-0.27	TEC	TEH			6	HOT	720UL
		0.36	96	P2	TWD	13	AV4	-0.04	TEC	TEH			6	HOT	720UL
31	13	0.21	38	P2	TWD	8	AV1	+0.24	TEH	TEC			6	COLD	720UL
31	41	0.32	89	P2	TWD	9	AV4	+0.00	TEH	TEC			1	COLD	720UL
31	44	0.31	60	P2	TWD	10	AV3	-0.35	TEH	TEC			2	COLD	720UL
32	42	0.33	122	P2	TWD	9	AV3	-0.27	TEH	TEC			1	COLD	720UL
33	15	0.33	157	P2	TWD	12	AV3	-0.33	TEH	TEC			6	COLD	720UL
33	43	0.27	110	P2	TWD	9	AV2	-0.15	TEH	TEC			2	COLD	720UL
34	31	0.37	74	P2	TWD	13	AV2	-0.26	TEH	TEC			4	COLD	720UL
34	46	0.37	45	P2	TWD	10	AV3	+0.40	TEH	TEC			1	COLD	720UL
37	47	0.30	134	P2	TWD	12	AV4	-0.20	TEC	TEH			5	HOT	720UL

Total Tubes : 15
Total Records: 16

Turkey Point Unit 3 (TP3-25)
SG 3A

10/10 - TP3-25

+Point™ WAR at AVBs

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
*33	44	0.69	101	P5	WAR		AV3	-0.27	06H	06C	31	96910.1	42	COLD	6801P
		1.50	87	P5	WAR		AV3	+0.28	06H	06C	50	96910.1	42	COLD	6801P
		2.30	75	P5	WAR		AV2	-0.06	06H	06C	64	96910.1	42	COLD	6801P
		0.50	104	P5	WAR		AV2	+0.44	06H	06C	25	96910.1	42	COLD	6801P
		0.73	103	P5	WAR		AV4	-0.19	06H	06C	32	96910.1	42	COLD	6801P
		0.69	105	P5	WAR		AV1	+0.42	06H	06C	31	96910.1	42	COLD	6801P

Total Tubes : 1
Total Records: 6

* NOTE 1: Tube 33-44 is the tube de-plugged, inspected with ECT, then re-plugged during 10/10 - TP3-25.

Note 2: The qualified EPRI sizing technique used for depth estimates is identified in the Util 2 field and the +Point™ depth is in the "UTIL 1" column.

Turkey Point Unit 3 (TP3-25)
SG 3A

10/10 - TP3-25

+Point™ WAR at Supports (Broach support and Baffle Plate)

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
1	5	0.11	89	2	WAR		TSC	+3.31	TSC	TSC	8	27902.1	22	COLD	680PP
12	19	0.32	92	P5	WAR		03H	-0.68	03H	03H	15	96910.1	44	HOT	680PP
14	4	0.41	88	2	WAR		06C	-0.73	06C	06C	16	27905.1	36	COLD	680PP

Total Tubes : 3
Total Records: 3

Note: The qualified EPRI sizing technique used for depth estimates is identified in the Util 2 field and the +PointTM depth is in the "UTIL 1" column.

SG 3B Indication Listings	
Listing Description	**Page No.**
Tubes Plugged Listing	2
Bobbin WEAR at AVB locations 20-100%TWD	3
Bobbin WEAR at AVB locations 1-19% TWD	3
WEAR (WAR) sized by +Point™ probe 1-100% (AVB)	4
WEAR (WAR) sized by +Point™ probe 1-100% (Broach/Baffle)	4

Turkey Point Unit 3 (TP3-25)
SG 3B Tubes Plugged Listing

10/10 - TP3-25

TP3-25 ECT Results for Tubes Repaired by Plugging

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION	EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
1	87				NDD			06H	TEH			6	HOT	720UL
		0.86	104	5	DFH	04H	+50.24	06H	TEH			6	HOT	720UL
					NDD			TSH	TSH			20	HOT	680PP
		0.89	12	2	NSU	06H	+7.00	06C	06H			20	COLD	6801P
		0.21	0	2	NSU	06H	+7.00	06C	06H			20	COLD	6801P
					NDD			TEC	TSC			15	COLD	680PP
					NDD			06H	TEH			6	HOT	720UL
					NDD			06C	06H			20	COLD	6801P
					NDD			06C	TEC			8	COLD	720UL
		78.09	10	2	NTE	TEC	+0.65	06C	TEC			8	COLD	720UL
		78.09	10	2	PID	TEC	+0.65	06C	TEC	HR		8	COLD	720UL
					PTP			06C	TEC			8	COLD	720UL
6	45				NDD			TSH	TSH			38	HOT	680PP
		9.24		8	SLG	TSH	+1.68	TEH	TEC			23	COLD	720UL
		9.76		8	SLG	TSC	+0.84	TEH	TEC			23	COLD	720UL
		0.30	117	P1	DSI	02C	+0.62	TEH	TEC			23	COLD	720UL
		0.14	125	P5	WAR	02C	+0.60	02C	02C	8	96910.1	29	COLD	680PP
		0.93	94	7	PLP	02C	+0.63	02C	02C	LAR		29	COLD	680PP
		0.93	94	7	PID	02C	+0.63	02C	02C	HR		29	COLD	680PP
					PTP	02C	+0.60	02C	02C			29	COLD	680PP
			90	P5	CLP	02C	+0.60	02C	02C	0.26	0.17	29	COLD	680PP
7	45	0.34	93	P5	WAR	02C	+0.63	02C	02C	14	96910.1	29	COLD	680PP
		0.58	94	7	PLP	02C	+0.56	02C	02C	LAR		29	COLD	680PP
		0.58	94	7	PID	02C	+0.56	02C	02C	HR		29	COLD	680PP
					PTP	02C	+0.56	02C	02C			29	COLD	680PP
			90	P5	CLP	02C	+0.63	02C	02C	0.30	0.27	29	COLD	680PP
		0.78	115	P1	DSI	02C	+0.64	TEH	TEC			22	COLD	720UL
		0.69	108	5	DFH	TSC	+12.81	TEH	TEC			22	COLD	720UL
		11.54		8	SLG	TSH	+1.60	TEH	TEC			22	COLD	720UL
		8.46		8	SLG	TSC	+0.81	TEH	TEC			22	COLD	720UL
					NDD			TSH	TSH			39	HOT	680PP
19	6	3.49	229	2	NTE	TSH	+0.00	TEH	TEC			6	COLD	720UL
		3.49	229	2	PID	TSH	+0.00	TEH	TEC	HR		6	COLD	720UL
					PTP			TEH	TEC			6	COLD	720UL
					NDD			TEH	TSH			27	HOT	680PP
24	8	4.00	217	2	NTE	TSH	+0.00	TEH	TEC			6	COLD	720UL
		4.00	217	2	PID	TSH	+0.00	TEH	TEC	HR		6	COLD	720UL
					PTP			TEH	TEC			6	COLD	720UL
					NDD			TEH	TSH			27	HOT	680PP

Total Tubes : 5

NOTE : Tubes with no tube expansion have "NTE" under the "IND" column. +Point™ depth estimates are in the "UTIL 1" column.

Turkey Point Unit 3 (TP3-25)
SG 3B

0/10 - TP3-25

Bobbin WAR at AVB's 20-100%TWD

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
30	42	0.94	67	P2	TWD	23	AV2	+0.07	TEH	TEC			4	COLD	720UL
		1.28	109	P2	TWD	28	AV3	+0.13	TEH	TEC			4	COLD	720UL
		0.98	88	P2	TWD	23	AV4	-0.19	TEH	TEC			4	COLD	720UL
34	31	0.77	81	P2	TWD	20	AV3	+0.00	TEH	TEC			4	COLD	720UL
34	53	1.08	98	P2	TWD	28	AV2	+0.02	TEC	TEH			9	HOT	720UL
		0.87	103	P2	TWD	25	AV1	+0.07	TEC	TEH			9	HOT	720UL
35	48	0.74	99	P2	TWD	22	AV3	+0.20	TEC	TEH			10	HOT	720UL
		0.77	72	P2	TWD	23	AV2	+0.02	TEC	TEH			10	HOT	720UL

Total Tubes : 4
Total Records: 8

Turkey Point Unit 3 (TP3-25)
SG 3B

10/10 - TP3-25

Bobbin WAR at AVB's 1-19%TWD

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
17	31	0.40	127	P2	TWD	10	AV3	-0.44	TEH	TEC			3	COLD	720UL
		0.20	126	P2	TWD	5	AV4	-0.09	TEH	TEC			3	COLD	720UL
26	20	0.51	147	P2	TWD	12	AV4	+0.09	TEH	TEC			1	COLD	720UL
26	50	0.39	145	P2	TWD	14	AV4	-0.02	TEC	TEH			9	HOT	720UL
30	42	0.49	49	P2	TWD	14	AV1	+0.00	TEH	TEC			4	COLD	720UL
32	27	0.38	36	P2	TWD	11	AV2	+0.02	TEH	TEC			2	COLD	720UL
34	20	0.52	28	P2	TWD	13	AV3	-0.33	TEH	TEC			1	COLD	720UL
34	31	0.49	90	P2	TWD	14	AV2	+0.00	TEH	TEC			4	COLD	720UL
		0.37	118	P2	TWD	11	AV4	+0.00	TEH	TEC			4	COLD	720UL
34	33	0.50	50	P2	TWD	14	AV3	+0.00	TEH	TEC			4	COLD	720UL
34	52	0.36	67	P2	TWD	13	AV4	+0.00	TEC	TEH			10	HOT	720UL
34	53	0.50	114	P2	TWD	17	AV3	-0.44	TEC	TEH			9	HOT	720UL
34	59	0.53	46	P2	TWD	18	AV2	+0.02	TEC	TEH			10	HOT	720UL
		0.34	68	P2	TWD	13	AV4	+0.00	TEC	TEH			10	HOT	720UL
		0.27	48	P2	TWD	10	AV1	+0.00	TEC	TEH			10	HOT	720UL
34	73	0.32	50	P2	TWD	12	AV2	-0.22	TEC	TEH			12	HOT	720UL
35	48	0.32	102	P2	TWD	12	AV3	-0.26	TEC	TEH			10	HOT	720UL
40	47	0.49	110	P2	TWD	17	AV3	-0.13	TEC	TEH			10	HOT	720UL
41	34	0.36	35	P2	TWD	10	AV2	+0.00	TEH	TEC			4	COLD	720UL
42	53	0.40	77	P2	TWD	14	AV4	-0.04	TEC	TEH			9	HOT	720UL
		0.29	101	P2	TWD	11	AV3	-0.04	TEC	TEH			9	HOT	720UL
		0.46	47	P2	TWD	16	AV3	+0.41	TEC	TEH			9	HOT	720UL
44	37	0.25	131	P2	TWD	8	AV4	+0.02	TEH	TEC			4	COLD	720UL
		0.26	118	P2	TWD	8	AV4	+0.29	TEH	TEC			4	COLD	720UL
45	46	0.56	90	P2	TWD	15	AV2	+0.00	TEH	TEC			4	COLD	720UL
45	49	0.30	165	P2	TWD	12	AV4	+0.11	TEC	TEH			10	HOT	720UL

Total Tubes : 19
Total Records: 26

Turkey Point Unit 3 (TP3-25)
SG 3B

10/10 - TP3-25

+Point™ WAR at AVBs

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION	EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE

Total Tubes : 0
Total Records: 0

No wear indications were reported at the Anti-vibration Bars with +Point™

Turkey Point Unit 3 (TP3-25)
SG 3B

10/10 - TP3-25

+Point™ WAR at Supports (Broached support and Baffle Plates)

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION	EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
6	45	0.14	125	P5	WAR		02C +0.60	02C	02C	8	96910.1	29	COLD	680PP
7	45	0.34	93	P5	WAR		02C +0.63	02C	02C	14	96910.1	29	COLD	680PP
21	42	0.18	91	P5	WAR		03C +0.51	03C	03C	8	96910.1	29	COLD	680PP
26	41	0.22	74	P5	WAR		03C +0.58	03C	03C	9	96910.1	29	COLD	680PP
39	64	0.50	94	P5	WAR		BAH -0.35	BAH	BAH	20	96910.1	40	HOT	680PP
42	44	0.16	127	P5	WAR		BAH -0.44	BAH	BAH	8	96910.1	40	HOT	680PP
43	45	0.45	102	P5	WAR		BAH -0.33	BAH	BAH	18	96910.1	40	HOT	680PP
45	45	0.15	99	P5	WAR		BAH -0.12	BAH	BAH	7	96910.1	40	HOT	680PP

Total Tubes : 8
Total Records: 8

Note: The qualified EPRI sizing technique used for depth estimates is identified in the Util 2 field and the depth estimate is in the "UTIL 1" column.

SG 3C Indication Listings	
Listing Description	**Page No.**
Tubes Plugged Listing	2
Bobbin WEAR at AVB locations 20-100%TWD	4
Bobbin WEAR at AVB locations 1-19% TWD	4
WEAR (WAR) sized by +Point™ probe 1-100% (AVB)	6
WEAR (WAR) sized by +Point™ probe 1-100% (Broach/Baffle)	7

Turkey Point Unit 3 (TP3-25)
SG 3C Tubes Plugged Listing

10/10 - TP3-25

TP3-25 ECT Results for Tubes Repaired by Plugging

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL	#	LEG	PROBE
3	82				NDD				TEH	TSH			22		HOT	680PP
		4.71	35	2	NTE		TSH	+0.00	06H	TEH			4		HOT	720UL
		4.71	43	2	PID		TSH	+0.00	06H	TEH	HR		4		HOT	720UL
					PTP				06H	TEH			4		HOT	720UL
					NDD				06H	TEH			4		HOT	720UL
					NDD				06H	TEC			21		COLD	700UL
					NDD				06H	TEC			21		COLD	700UL
3	83				NDD				06H	TEC			21		COLD	700UL
					NDD				06H	TEC			21		COLD	700UL
					NDD				06H	TEH			4		HOT	720UL
		3.95	47	2	NTE		TSH	+0.00	06H	TEH			4		HOT	720UL
		3.64	56	2	PID		TSH	+0.00	06H	TEH	HR		4		HOT	720UL
					PTP				06H	TEH			4		HOT	720UL
					NDD				TEH	TSH			22		HOT	680PP
3	85				NDD				TEH	TSH			22		HOT	680PP
		4.69	43	2	NTE		TSH	+0.00	06H	TEH			4		HOT	720UL
		4.68	51	2	PID		TSH	+0.00	06H	TEH	HR		4		HOT	720UL
					PTP				06H	TEH			4		HOT	720UL
					NDD				06H	TEH			4		HOT	720UL
					NDD				06H	TEC			21		COLD	700UL
					NDD				06H	TEC			21		COLD	700UL
5	23				NDD				TEH	TEC			7		COLD	720UL
		4.66	219	2	NTE		TSH	+0.02	TEH	TEC			7		COLD	720UL
		4.87	219	2	PID		TSH	+0.02	TEH	TEC	HR		7		COLD	720UL
					PTP				TEH	TEC			7		COLD	720UL
					NDD				TEH	TSH			22		HOT	680PP
21	61			4	CLP		04H	-0.76	04H	04H	0.30	0.43	37		HOT	680PP
		1.32	74	P5	WAR		04H	-0.76	04H	04H	37	96910.1	37		HOT	680PP
		1.46	70	2	PID		04H	-0.76	04H	04H			37		HOT	680PP
					TBP				04C	04C			37		HOT	680PP
			0	1	CLP		04H	-0.76	04H	04H	0.30	0.33	29		HOT	680PP
					TBP				04H	04H			29		HOT	680PP
					RBS				04H	04H	LAR		29		HOT	680PP
					NDD				TSH	TSH			16		HOT	680PP
		0.53	84	P1	DSI		04H	-0.55	TEH	TEC			13		COLD	720UL
		4.27	179	P1	DNG		06C	+0.53	TEH	TEC			13		COLD	720UL
		3.51	177	P1	DNG		06C	-0.58	TEH	TEC			13		COLD	720UL
		2.29	176	P1	DNG		05C	+0.49	TEH	TEC			13		COLD	720UL
29	77	3.45	185	P1	DNG		06H	+10.73	TEH	TEC			11		COLD	720UL
		0.43	87	P1	DSI		03H	-0.67	TEH	TEC			11		COLD	720UL
					NDF		06H	+10.71	06H	AV1			35		HOT	6801P
		0.88	82	P5	WAR		03H	-0.81	03H	03H	31	96910.1	37		HOT	680PP
				4	CLP		03H	-0.81	03H	03H	0.24	0.31	37		HOT	680PP
		0.88	82	P5	PID		03H	-0.81	03H	03H			37		HOT	680PP
					PTP				03H	03H			37		HOT	680PP
					NDD				TSH	TSH			18		HOT	680PP

Turkey Point Unit 3 (TP3-25)
SG 3C Tubes Plugged Listing (continued)

10/10 - TP3-25

TP3-25 ECT Results for Tubes Repaired by Plugging

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
30	45	16.11	183	P1	DNG		06C	+0.49	TEH	TEC			1	COLD	720UL
		14.32	183	P1	DNG		06C	-0.69	TEH	TEC			1	COLD	720UL
		8.43	182	P1	DNG		05C	+0.43	TEH	TEC			1	COLD	720UL
		10.47	183	P1	DNG		05C	-0.67	TEH	TEC			1	COLD	720UL
		3.41	180	P1	DNG		04C	+0.38	TEH	TEC			1	COLD	720UL
		4.54	180	P1	DNG		04C	-0.76	TEH	TEC			1	COLD	720UL
		0.65	106	P5	WAR		AV3	+0.06	AV3	AV3	21	96910.1	33	HOT	6801P
			0	1	CLP		AV3	+0.06	AV3	AV3	0.31	0.26	33	HOT	6801P
					NDD				TSH	TSH			14	HOT	680PP
					PTP				TEH	TEC			1	COLD	720UL
					PRA				AV3	AV3			39	HOT	6801P
		0.25	34	P2	TWD	12	AV2	-0.20	TEH	TEC			1	COLD	720UL
		1.56	119	P2	TWD	37	AV3	+0.04	TEH	TEC			1	COLD	720UL
		1.56	119	P2	PID		AV3	+0.22	TEH	TEC	HR		1	COLD	720UL
41	43	2.48	176	P1	DNG		06C	+0.43	TEH	TEC			2	COLD	720UL
		2.34	176	P1	DNG		06C	-0.72	TEH	TEC			2	COLD	720UL
		2.07	177	P1	DNG		05C	+0.47	TEH	TEC			2	COLD	720UL
		4.18	222	2	NTE		TSH	+0.00	TEH	TEC			2	COLD	720UL
		4.79	219	2	PID		TSH	+0.00	TEH	TEC	HR		2	COLD	720UL
					PTP				TEH	TEC			2	COLD	720UL
					NDD				TEH	TSH			22	HOT	680PP

Total Tubes : 8
Total Records: 67

NOTE: Tubes with no tube expansion have "NTE" in the "IND" column. +Point™ depth estimates are in the "UTIL 1" column. Bobbin depth estimates are in the "%TW" column.

Turkey Point Unit 3 (TP3-25)
SG 3C

10/10- TP3-25

Bobbin WAR at AVB's 20-100%TWD

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
24	63	0.79	99	P2	TWD	25	AV3	-0.13	TEH	TEC			13	COLD	720UL
25	62	0.62	58	P2	TWD	21	AV2	+0.00	TEH	TEC			13	COLD	720UL
		0.77	102	P2	TWD	25	AV3	+0.00	TEH	TEC			13	COLD	720UL
26	58	0.87	77	P2	TWD	24	AV2	-0.02	TEH	TEC			14	COLD	720UL
28	48	1.28	97	P2	TWD	32	AV2	+0.22	TEH	TEC			13	COLD	720UL
30	31	0.62	76	P2	TWD	24	AV1	-0.19	TEH	TEC			3	COLD	720UL
		0.73	122	P2	TWD	26	AV2	+0.11	TEH	TEC			3	COLD	720UL
		0.72	75	P2	TWD	26	AV3	+0.00	TEH	TEC			3	COLD	720UL
30	45	1.56	119	P2	TWD	37	AV3	+0.04	TEH	TEC			1	COLD	720UL
30	61	0.88	121	P2	TWD	27	AV2	+0.13	TEH	TEC			11	COLD	720UL
33	43	0.92	61	P2	TWD	25	AV3	+0.00	TEH	TEC			2	COLD	720UL
		0.66	101	P2	TWD	20	AV2	+0.00	TEH	TEC			2	COLD	720UL
34	31	0.86	89	P2	TWD	24	AV2	+0.11	TEH	TEC			23	COLD	720UL
		1.32	93	P2	TWD	31	AV3	-0.11	TEH	TEC			23	COLD	720UL
34	41	0.95	99	P2	TWD	29	AV1	-0.04	TEH	TEC			1	COLD	720UL
		1.17	83	P2	TWD	33	AV2	-0.38	TEH	TEC			1	COLD	720UL
		1.21	95	P2	TWD	33	AV3	-0.07	TEH	TEC			1	COLD	720UL
		1.15	106	P2	TWD	32	AV4	+0.00	TEH	TEC			1	COLD	720UL
35	36	0.62	55	P2	TWD	20	AV2	+0.04	TEH	TEC			2	COLD	720UL
35	49	0.74	55	P2	TWD	20	AV4	+0.00	TEH	TEC			12	COLD	720UL
37	28	0.59	77	P2	TWD	23	AV4	+0.16	TEH	TEC			3	COLD	720UL
38	65	0.78	102	P2	TWD	26	AV2	+0.00	TEH	TEC			9	COLD	720UL
		0.80	91	P2	TWD	26	AV4	+0.00	TEH	TEC			9	COLD	720UL
38	71	0.75	121	P2	TWD	23	AV3	+0.07	TEH	TEC			10	COLD	720UL
40	25	0.84	87	P2	TWD	24	AV3	+0.02	TEH	TEC			4	COLD	720UL
40	55	0.63	63	P2	TWD	23	AV3	+0.00	TEH	TEC			9	COLD	720UL

Total Tubes : 17
Total Records: 26

Turkey Point Unit 3 (TP3-25)
SG 3C

10/10 - TP3-25

Bobbin WAR at AVB's 1-19%TWD

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
18	26	0.17	26	P2	TWD	7	AV2	+0.11	TEH	TEC			4	COLD	720UL
20	37	0.32	70	P2	TWD	14	AV3	-0.33	TEH	TEC			1	COLD	720UL
21	38	0.52	65	P2	TWD	17	AV2	+0.24	TEH	TEC			2	COLD	720UL
		0.36	98	P2	TWD	13	AV3	+0.02	TEH	TEC			2	COLD	720UL
21	62	0.27	39	P2	TWD	10	AV1	-0.13	TEH	TEC			14	COLD	720UL
		0.34	61	P2	TWD	13	AV2	+0.13	TEH	TEC			14	COLD	720UL
23	45	0.51	138	P2	TWD	17	AV3	+0.00	TEH	TEC			23	COLD	720UL
24	11	0.28	120	P2	TWD	11	AV4	+0.00	TEH	TEC			2	COLD	720UL
24	12	0.23	27	P2	TWD	11	AV1	-0.04	TEH	TEC			5	COLD	720UL
24	43	0.24	143	P2	TWD	12	AV2	-0.25	TEH	TEC			1	COLD	720UL
24	57	0.42	45	P2	TWD	16	AV2	+0.00	TEH	TEC			13	COLD	720UL
24	59	0.49	94	P2	TWD	18	AV1	+0.00	TEH	TEC			13	COLD	720UL
		0.42	34	P2	TWD	16	AV2	+0.00	TEH	TEC			13	COLD	720UL
		0.25	100	P2	TWD	11	AV3	+0.07	TEH	TEC			13	COLD	720UL
		0.28	102	P2	TWD	12	AV4	+0.02	TEH	TEC			13	COLD	720UL
24	63	0.45	52	P2	TWD	17	AV2	+0.22	TEH	TEC			13	COLD	720UL
26	49	0.25	101	P2	TWD	11	AV3	-0.02	TEH	TEC			13	COLD	720UL

Turkey Point Unit 3 (TP3-25)
SG 3C

10/10 - TP3-25

Bobbin WAR at AVB's 1-19%TWD

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
26	58	0.42	54	P2	TWD	15	AV3	-0.22	TEH	TEC			14	COLD	720UL
		0.54	81	P2	TWD	18	AV1	+0.20	TEH	TEC			14	COLD	720UL
28	12	0.26	90	P2	TWD	13	AV1	+0.07	TEH	TEC			5	COLD	720UL
28	48	0.29	132	P2	TWD	12	AV1	+0.09	TEH	TEC			13	COLD	720UL
		0.28	148	P2	TWD	12	AV3	+0.00	TEH	TEC			13	COLD	720UL
28	60	0.26	86	P2	TWD	12	AV2	+0.11	TEH	TEC			11	COLD	720UL
29	14	0.24	49	P2	TWD	12	AV3	+0.00	TEH	TEC			5	COLD	720UL
		0.22	31	P2	TWD	11	AV2	-0.04	TEH	TEC			5	COLD	720UL
30	18	0.44	129	P2	TWD	18	AV1	-0.13	TEH	TEC			5	COLD	720UL
		0.25	43	P2	TWD	12	AV3	-0.09	TEH	TEC			5	COLD	720UL
30	30	0.32	45	P2	TWD	12	AV1	+0.11	TEH	TEC			4	COLD	720UL
		0.28	127	P2	TWD	11	AV2	+0.15	TEH	TEC			4	COLD	720UL
		0.29	150	P2	TWD	11	AV3	-0.02	TEH	TEC			4	COLD	720UL
		0.45	62	P2	TWD	15	AV4	-0.06	TEH	TEC			4	COLD	720UL
30	45	0.25	34	P2	TWD	12	AV2	-0.20	TEH	TEC			1	COLD	720UL
30	51	0.28	107	P2	TWD	12	AV2	+0.02	TEH	TEC			11	COLD	720UL
30	60	0.20	36	P2	TWD	7	AV2	+0.00	TEH	TEC			12	COLD	720UL
30	61	0.24	17	P2	TWD	11	AV4	+0.01	TEH	TEC			11	COLD	720UL
31	15	0.42	91	P2	TWD	18	AV1	+0.13	TEH	TEC			5	COLD	720UL
33	28	0.22	156	P2	TWD	11	AV3	+0.09	TEH	TEC			3	COLD	720UL
33	31	0.24	118	P2	TWD	9	AV2	+0.29	TEH	TEC			4	COLD	720UL
		0.22	37	P2	TWD	10	AV4	-0.20	TEH	TEC			4	COLD	720UL
		0.60	118	P2	TWD	19	AV3	-0.09	TEH	TEC			4	COLD	720UL
33	32	0.51	127	P2	TWD	17	AV2	+0.19	TEH	TEC			23	COLD	720UL
		0.58	104	P2	TWD	19	AV3	+0.24	TEH	TEC			23	COLD	720UL
		0.31	55	P2	TWD	12	AV4	+0.04	TEH	TEC			23	COLD	720UL
33	38	0.32	83	P2	TWD	12	AV3	+0.00	TEH	TEC			2	COLD	720UL
33	45	0.24	104	P2	TWD	10	AV2	-0.11	TEH	TEC			2	COLD	720UL
33	46	0.26	29	P2	TWD	10	AV3	+0.00	TEH	TEC			2	COLD	720UL
33	55	0.41	95	P2	TWD	16	AV3	-0.07	TEH	TEC			11	COLD	720UL
34	32	0.21	86	P2	TWD	8	AV3	-0.18	TEH	TEC			4	COLD	720UL
34	38	0.30	86	P2	TWD	12	AV4	+0.00	TEH	TEC			23	COLD	720UL
34	44	0.60	106	P2	TWD	19	AV3	+0.13	TEH	TEC			2	COLD	720UL
		0.44	35	P2	TWD	15	AV4	-0.04	TEH	TEC			2	COLD	720UL
34	45	0.22	23	P2	TWD	11	AV2	-0.06	TEH	TEC			1	COLD	720UL
34	52	0.28	140	P2	TWD	12	AV3	+0.04	TEH	TEC			11	COLD	720UL
34	56	0.24	149	P2	TWD	11	AV3	-0.04	TEH	TEC			11	COLD	720UL
35	35	0.53	63	P2	TWD	18	AV3	+0.11	TEH	TEC			2	COLD	720UL
35	36	0.57	137	P2	TWD	19	AV3	+0.11	TEH	TEC			2	COLD	720UL
35	49	0.29	29	P2	TWD	10	AV3	+0.02	TEH	TEC			12	COLD	720UL
35	51	0.46	132	P2	TWD	14	AV2	+0.02	TEH	TEC			12	COLD	720UL
35	52	0.43	115	P2	TWD	17	AV3	-0.02	TEH	TEC			11	COLD	720UL
35	54	0.29	71	P2	TWD	13	AV1	-0.02	TEH	TEC			11	COLD	720UL
		0.46	55	P2	TWD	18	AV2	-0.06	TEH	TEC			11	COLD	720UL
35	57	0.26	33	P2	TWD	9	AV2	+0.09	TEH	TEC			12	COLD	720UL
36	54	0.24	39	P2	TWD	10	AV2	+0.00	TEH	TEC			23	COLD	720UL
36	56	0.23	40	P2	TWD	10	AV3	+0.11	TEH	TEC			11	COLD	720UL
36	73	0.26	45	P2	TWD	11	AV3	+0.09	TEH	TEC			10	COLD	720UL
37	26	0.29	129	P2	TWD	14	AV4	+0.00	TEH	TEC			3	COLD	720UL
37	27	0.24	119	P2	TWD	12	AV3	+0.00	TEH	TEC			3	COLD	720UL
38	25	0.30	45	P2	TWD	11	AV3	-0.09	TEH	TEC			4	COLD	720UL
38	50	0.23	134	P2	TWD	10	AV2	+0.13	TEH	TEC			10	COLD	720UL
38	59	0.22	107	P2	TWD	10	AV2	+0.07	TEH	TEC			9	COLD	720UL
38	61	0.44	138	P2	TWD	18	AV2	+0.00	TEH	TEC			9	COLD	720UL
38	63	0.47	41	P2	TWD	19	AV2	+0.00	TEH	TEC			9	COLD	720UL
38	65	0.38	131	P2	TWD	16	AV3	+0.00	TEH	TEC			9	COLD	720UL
38	66	0.33	78	P2	TWD	13	AV3	+0.16	TEH	TEC			10	COLD	720UL
39	24	0.23	39	P2	TWD	10	AV3	+0.00	TEH	TEC			4	COLD	720UL
39	28	0.21	30	P2	TWD	11	AV4	+0.11	TEH	TEC			3	COLD	720UL
39	54	0.44	81	P2	TWD	18	AV3	+0.00	TEH	TEC			9	COLD	720UL
		0.32	104	P2	TWD	14	AV4	+0.02	TEH	TEC	TWR		9	COLD	720UL

Turkey Point Unit 3 (TP3-25)
SG 3C

10/10 - TP3-25

Bobbin WAR at AVB's 1-19%TWD

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
39	55	0.37	46	P2	TWD	14	AV2	+0.11	TEH	TEC	TWR		10	COLD	720UL
40	25	0.51	113	P2	TWD	17	AV2	+0.07	TEH	TEC			4	COLD	720UL
40	28	0.27	43	P2	TWD	10	AV4	+0.07	TEH	TEC			4	COLD	720UL
40	44	0.32	73	P2	TWD	15	AV3	+0.02	TEH	TEC			1	COLD	720UL
		0.28	61	P2	TWD	13	AV4	+0.02	TEH	TEC			1	COLD	720UL
40	46	0.26	56	P2	TWD	12	AV4	+0.07	TEH	TEC			1	COLD	720UL
40	55	0.39	56	P2	TWD	16	AV4	+0.00	TEH	TEC			9	COLD	720UL
40	57	0.27	38	P2	TWD	12	AV3	+0.00	TEH	TEC			9	COLD	720UL
		0.25	28	P2	TWD	12	AV4	-0.22	TEH	TEC			9	COLD	720UL
42	31	0.51	41	P2	TWD	17	AV3	+0.00	TEH	TEC			4	COLD	720UL
42	43	0.34	32	P2	TWD	15	AV1	-0.02	TEH	TEC			1	COLD	720UL
43	33	0.43	45	P2	TWD	15	AV3	-0.13	TEH	TEC			4	COLD	720UL
43	35	0.32	43	P2	TWD	12	AV3	+0.00	TEH	TEC			2	COLD	720UL
43	60	0.18	166	P2	TWD	8	AV2	+0.13	TEH	TEC			10	COLD	720UL
44	36	0.28	39	P2	TWD	11	AV3	+0.13	TEH	TEC			2	COLD	720UL
44	37	0.31	59	P2	TWD	12	AV3	+0.09	TEH	TEC			2	COLD	720UL
45	52	0.21	167	P2	TWD	9	AV4	+0.25	TEH	TEC			10	COLD	720UL

Total Tubes : 74
Total Records: 95

Turkey Point Unit 3 (TP3-25)
SG 3C

10/10 - TP3-25

+Point™ WAR at AVBs

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
30	45	0.65	106	P5	WAR		AV3	+0.06	AV3	AV3	21	96910.1	33	HOT	6801P
44	36	0.20	106	P5	WAR		AV3	-0.03	AV3	AV4	14	96910.1	31	HOT	6801P

Total Tubes : 2
Total Records: 2

Note: The qualified EPRI sizing technique used for depth estimates is identified in the Util 2 field and the depth is in the "UTIL 1" field.

Turkey Point Unit 3 (TP3-25)
SG 3C

10/10 - TP3-25

+Point™ WAR at Supports (Broach support and Baffle Plate)

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION		EXT	EXT	UTIL 1	UTIL 2	CAL #	LEG	PROBE
5	85	0.08	112	P5	WAR		03H	-0.70	03H	03H	4	96910.1	37	HOT	680PP
15	82	0.33	79	P5	WAR		03H	-0.85	03H	03H	16	96910.1	37	HOT	680PP
20	61	0.15	107	P5	WAR		04H	-0.64	04H	04H	8	96910.1	37	HOT	680PP
21	61	1.32	74	P5	WAR		04H	-0.76	04H	04H	37	96910.1	37	HOT	680PP
23	71	0.20	76	P5	WAR		06H	-0.56	06H	06H	10	96910.1	37	HOT	680PP
27	21	0.23	101	P5	WAR		02H	-0.90	02H	02H	12	96910.1	37	HOT	680PP
29	73	0.24	77	P5	WAR		02H	-0.86	02H	02H	12	96910.1	37	HOT	680PP
29	77	0.88	82	P5	WAR		03H	-0.81	03H	03H	31	96910.1	37	HOT	680PP
32	19	0.12	119	P5	WAR		03H	-0.54	03H	03H	6	96910.1	37	HOT	680PP
35	68	0.12	76	P5	WAR		03H	-0.67	03H	03H	6	96910.1	37	HOT	680PP
36	68	0.18	103	P5	WAR		03H	-0.69	03H	03H	10	96910.1	37	HOT	680PP

Total Tubes : 11
Total Records: 11

Note: The qualified EPRI sizing technique used for depth estimates is identified in the Util 2 field and the depth is in the "UTIL 1" field.