



Entergy Nuclear South
Entergy Operations, Inc
17265 River Road
Killona, LA 70066
Tel 504 739 6440
Fax 504 739 6698
kpeters@entergy.com

Ken Peters
Director, Nuclear Safety Assurance
Waterford 3

W3F1-2003-0016

March 27, 2003

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

SUBJECT: Waterford Steam Electric Station, Unit 3
Docket No. 50-382
Steam Generator Tubesheet Inspection Information

REFERENCES: Nuclear Energy Institute letter to the NRC dated February 4, 2003, *Steam Generator Tubesheet Inspection Information*

Dear Sir or Madam:

As described in the referenced letter, the Nuclear Energy Institute was requested to coordinate industry response to NRC staff questions regarding steam generator tube inspections within the tubesheet. The Entergy Operations, Inc. (Entergy) response for Waterford Steam Electric Station, Unit 3 (Waterford 3) is provided in the attachment to this letter.

Entergy believes that NRC approval of the Generic Licensing Change Package (GLCP) and subsequent licensee amendment requests is the best approach in resolving any issue associated with the interpretation of steam generator tube inspection. As such, Entergy requests continued support in the adoption of the GLCP in lieu of separate amendment requests to define inspection technique and extent.

The letter does not include any new commitments. If you have any questions or require additional information, please contact D. Bryan Miller at 504-739-6692.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Peters".

K. Peters
Director, Nuclear Safety Assurance

KJP/DBM/cbh

Attachment: Information on Waterford 3 Steam Generator Tubesheet Inspections and Results

ADD1

W3F1-2003-0016

Page 2 of 2

March 27, 2003

cc: E.W. Merschoff, NRC Region IV
N. Kalyanam, NRC-NRR
J. Smith
N.S. Reynolds
NRC Resident Inspectors Office

Attachment

W3F1-2003-0016

**Information on Waterford 3 Steam Generator
Tubesheet Inspections and Results**

Information on Waterford 3 Steam Generator Tubesheet Inspections and Results

PLANT INFORMATION
Plant Name: Waterford Steam Electric Station, Unit 3 T _{hot} : 605 °F Normal Steady State Full Power DP: 1416 psia Model of Steam Generator: Combustion Engineering Model 70 - 3410 Tube Material: High Temperature Mill Annealed Inconel-600 Tube Diameter: 0.75" Tube Wall Thickness: 0.048" Expansion Process and Extent: Explosively Expanded Full Length Tubesheet Thickness: 22.75"

SUSCEPTIBLE TO DEGRADATION BELOW EXPANSION TRANSITION REGION
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If no, provide basis for non-susceptibility determination N/A

PLANNED INSPECTION FOR NEXT OUTAGE
Anticipated date of outage: October, 2003 Techniques to be used: Plus Point Extent of inspections: +2/-5" TSH Bases for inspection technique and inspection extent : CEOG Task 1154, "NDE Inspection Strategy for Tubesheet Region in CE Designed Units" Technical Document reference: WCAP-15720, "NDE Inspection Strategy for Tubesheet Region in CE Designed Units"

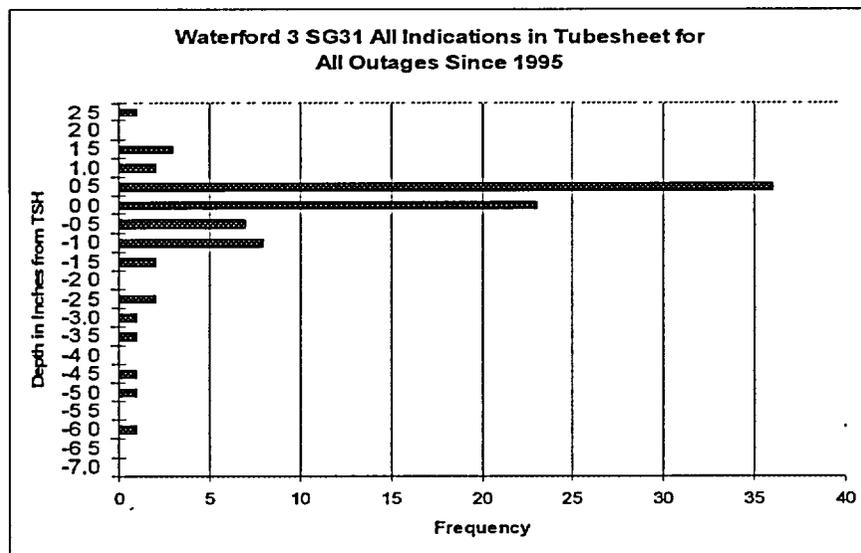
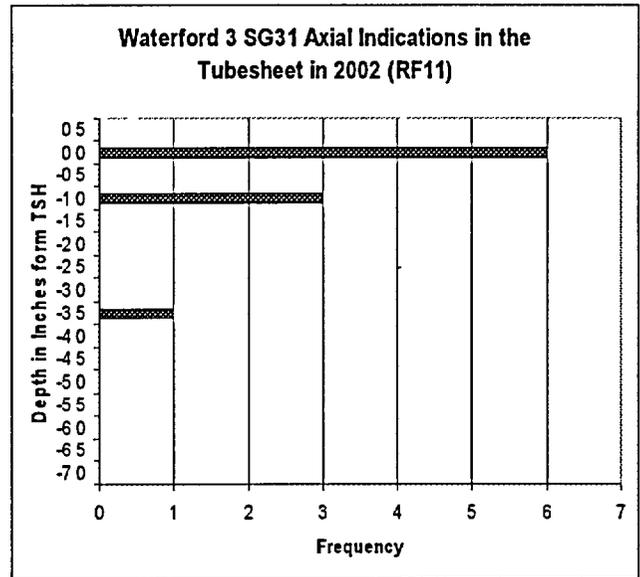
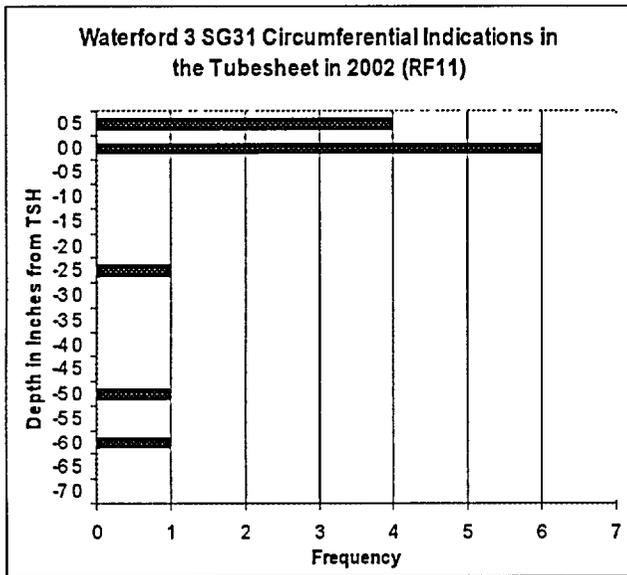
HISTORICAL INSPECTION PRACTICES AND RESULTS					
<u>Most recent outage:</u>					
Date of Outage: March, 2002					
Cycle #: 11					
Inspection techniques used: Plus Point					
Extent of inspections: +2/-5" TSH					
Results: See Pages 3 and 4					
Bases for inspection technique and inspection extent: CEOG Task 1154, "NDE Inspection Strategy for Tubesheet Region in CE Designed Units" (Waterford 3 conditions and design were considered by this Task.)					
Technical Document reference: WCAP-15720, "NDE Inspection Strategy for Tubesheet Region in CE Designed Units" (Formerly CEOG Task 1154)					
<u>Previous outages:</u>					
Inspection techniques used: See Below					
Extent of inspections: See Below					
Results: See Pages 3 and 4					
Bases for inspection technique and inspection extent: CEOG Task 1154, "NDE Inspection Strategy for Tubesheet Region in CE Designed Units"					
Year	Outage	% HL Inspected	% CL Inspected	Extent Tested	Probe
1991	RF04	2.8	0	+2/-2"	Pancake
1992	RF05	3.2	0	+2/-2"	Pancake
1994	RF06	100	0	+2/-2"	Pancake
1995	RF07	100	0	+2/-2"	Plus Point
1997	RF08	100	10	+2/-2"	Plus Point
1999	RF09	100	0	+2/-2"	Plus Point
2000	RF10	100	0	+2/-5"	Plus Point
2002	RF11	100	0	+2/-5"	Plus Point

Legend:
TSH – Tube Sheet Hot HL – Hot Leg CL – Cold Leg
CEOG – Combustion Engineering Owners Group
RF – Refueling Outage SG – Steam Generator
SAI – Single Axial Indication
SCI – Single Circumferential Indication
SVI – Single Volumetric Indication
MAI – Multiple Axial Indications
MCI – Multiple Circumferential Indications
MVI – Multiple Volumetric Indications

Waterford 3 Tubesheet Indication Historical Data

SG31

Outage	SAI	SCI	SVI	MAI	MCI	MVI
1995	0	6	0	0	0	0
1997	10	12	3	1	2	0
1999	4	2	0	0	0	0
2000	22	4	0	0	0	0
2002	10	13	0	0	0	0



Waterford 3 Tubesheet Indication Historical Data

SG32

Outage	SAI	SCI	SVI	MAI	MCI	MVI
1995	0	1	0	0	0	0
1997	7	7	1*	0	0	0
1999	0	3	0	0	0	0
2000	20	8	4	2	0	0
2002	1	3	0	0	0	0

* Tubesheet Cold

