CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9803190063 DOC.DATE: 98/03/11 NOTARIZED: YES DOCKET #
FACIL:50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
AUTH.NAME AUTHOR AFFILIATION
HOVEY,R.J. Florida Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Submits 90-day response to GL 97-05, "Steam Generator Tube Insp Techniques."

DISTRIBUTION CODE: A001D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
TITLE: OR Submittal: General Distribution

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD2-3 LA	1	1	PD2-3 PD	1	1
	CROTEAU,R	1	1			
INTERNAL:	FILE CENTER 01	1	1	NRR/DE/ECGB/A	1	1
	~~NRR/DE/EMCB~~	1	1	NRR/DRCH/HICB	1	1
	NRR/DSSA/SPLB	1	1	NRR/DSSA/SRXB	1	1
	NUDOCS-ABSTRACT	1	1	OGC/HDS3	1	0
EXTERNAL:	NOAC	1	1	NRC PDR	1	1
	A. Dromerick	1	1			

CATEGORY 1 DOCUMENT

NOTE TO ALL "RIDS" RECIPIENTS:
PLEASE HELP US TO REDUCE WASTE. TO HAVE YOUR NAME OR ORGANIZATION REMOVED FROM DISTRIBUTION LISTS OR REDUCE THE NUMBER OF COPIES RECEIVED BY YOU OR YOUR ORGANIZATION, CONTACT THE DOCUMENT CONTROL DESK (DCD) ON EXTENSION 415-2083

TOTAL NUMBER OF COPIES REQUIRED: LTTR ~~13~~ 14 ENCL ~~12~~ 13

FPL

MAR 11 1998

L-98-59
10 CFR 50.4
10 CFR 50.54(f)

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

RE: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Generic Letter 97-05 Response

NRC Generic Letter (GL) 97-05, "Steam Generator Tube Inspection Techniques," issued on December 17, 1997, required licensees to provide within 90 days, certain information to determine whether they are in compliance with their current licensing basis given their steam generator tube inservice inspection practices. This letter provides the Florida Power and Light Company response to GL 97-05 for Turkey Point Units 3 and 4.

This response is provided pursuant to the requirements of Section 182a of the Atomic Energy Act of 1954, as amended, and 10 CFR 50.54(f).

Very truly yours,

RJH

R. J. Hovey
Vice President
Turkey Point Plant

OIH

Attachment

cc: Luis A. Reyes, Regional Administrator, Region II, USNRC
T. P. Johnson, Senior Resident Inspector, USNRC, Turkey Point Plant

A001

100004

Add: A. Dromerick

STATE OF FLORIDA)
) ss.
COUNTY OF DADE)

R. J. Hovey being first duly sworn, deposes and says:

That he is Vice President, Turkey Point Plant, for the Nuclear Division of Florida Power & Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.

R. J. Hovey

STATE OF FLORIDA

COUNTY OF DADE

Sworn to and subscribed before me
this 11th day of March, 1998
by R. J. Hovey, who is personally known to me.

Cheryl A. Stevenson
Name of Notary Public - State of Florida

CHERYL A. STEVENSON
MY COMMISSION # CC 564017
EXPIRES: June 19, 2000
Bonded Thru Notary Public Underwriters

(Print, type or stamp Commissioned Name of Notary Public)

GENERIC LETTER 97-05 RESPONSE

On December 17, 1997, the U.S. NRC issued Generic Letter (GL) 97-05, "Steam Generator Tube Inspection Techniques," to (1) emphasize the importance of performing steam generator tube inservice inspections using qualified techniques in accordance with the requirements of Appendix B to 10 CFR Part 50, and (2) require certain information to determine whether licensees are in compliance with their current licensing basis given their steam generator tube inservice inspection practices.

In accordance with the GL, the Florida Power and Light Company (FPL) response to the requested information for Turkey Point Units 3 and 4 is provided below.

NRC Requested Information Item (1) - whether it is their practice to leave steam generator tubes with indications in service based on sizing.

FPL Response

It is the practice at Turkey Point Units 3 and 4 to leave in service, based on sizing, steam generator tubes with mechanical wear indications at contact points with anti-vibration bars and other support structures. No other types of degradation are left in service based on sizing at the Turkey Point Plant.

Steam generator tubes with mechanical wear indications which can be sized at less than the Technical Specification value of 40% of the nominal tube wall thickness including consideration of wear progression as described below under sizing techniques, are left in service. The Turkey Point Units 3 and 4 steam generators are Westinghouse replacement Model 44F.

NRC Requested Information Item (2) - if the response to item (1) is affirmative, those licensees should submit a written report that includes, for each type of indication, a description of the associated nondestructive examination method being used and the technical basis for the acceptability of the technique used.

FPL Response

Background

The nuclear power industry recently voted to adopt an initiative requiring each utility to implement the guidance provided in NEI 97-06, "Steam Generator Program Guidelines," no later than the

first refueling outage starting after January 1, 1999. As specified in NEI 97-06, each utility is required to follow the inspection guidelines contained in the latest revision of the EPRI PWR Steam Generator Examination Guidelines.

Appendix H, "Performance Demonstration for Eddy Current Examination," of the EPRI PWR Steam Generator Examination Guidelines, Revisions 3 through 5, provide guidance on the qualification of steam generator tubing examination techniques and equipment used to detect and size flaws. Revision 4 of the EPRI guidelines are applicable to the most recent inspections at Turkey Point. Damage mechanisms are divided into the following categories: thinning, pitting, wear, outside diameter intergranular attack/stress-corrosion cracking (IGA/SCC), primary-side SCC, and impingement damage for qualification.

For qualification purposes, test samples are used to evaluate detection and sizing capabilities. While pulled tube samples are preferred, fabricated samples may be used. If fabricated test samples are used, the samples are verified to produce signals similar to those being observed in the field in terms of signal characteristics, signal amplitude, and signal-to-noise ratio. Samples are examined to determine the actual through wall defect measurements as part of the Appendix H qualification process.

The procedures developed in accordance with Appendix H specify the essential variables for each procedure. These essential variables are associated with an individual instrument, probe, cable, or particular on-site equipment configurations. Additionally, certain techniques have undergone testing and review to quantify sizing performance. The sizing data set includes the detection data set for the technique with additional requirements for number and composition of the grading units.

Sizing Techniques

At Turkey Point Units 3 and 4, sizing techniques for mechanical wear are used during steam generator inspections to leave flaws in service which are sized as less than the Technical Specification limit of 40 % through wall. Mechanical wear indications which approach the 40% through wall limit are reviewed for wear progression, and removed from service preventatively if it is estimated that they will exceed the limit prior to the next inspection. The basis for application of the sizing technique is the conduct of the examinations under the Turkey Point Plant Quality Assurance Program following the requirements of Sections XI and V of the ASME Code, 1989 Edition and Regulatory Guide 1.83. Additional support for sizing degradation-specific mechanisms is provided by the qualification data sets in Appendix H to the EPRI PWR Steam Generator Examination Guidelines.

Mechanical Wear

For wear at anti-vibration bars in the u-bends and other support structures, sizing is accomplished using the 400/100 Khz differential mix or the 400/100 Khz absolute mix of the bobbin probe. A calibration curve for amplitude vertical maximum is determined based on applicable standards which replicate the damage mechanism type and quantity. The calibration curve represents the full range of expected depths.

This sizing qualification is based on 64 sample data points. The samples ranged in depth from 4% to 78% through wall depth. This technique has a greater than 80% probability of detection at a 90% confidence level, and a root mean square sizing error of less than 5% through-wall.