FPL

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L-2003-194
10 CFR 50.36

Luis A. Reyes
Regional Administrator
U. S. Nuclear Regulatory Commission
Atlanta Federal Center
61 Forsyth Street, S. W., Suite 23T85
Atlanta, GA 30303

Dear Mr. Reyes:

Re: Turkey Point Unit 3
Docket No. 50-250
Revision to End of Cycle 18
Steam Generator Tube Plugging Report

During the March 2003 Turkey Point Unit 3 Cycle 20 refueling outage steam generator inservice inspection a ding indication reported during the October 2001 Unit 3 End of Cycle 18 refueling outage in steam generator 3A Row 16, Column 54 (R16, C54) could not be located. This discrepancy indicated that a tube identification error had occurred. A review of the eddy current data from October 2001 through March 2003 determined that the 3A steam generator tube R16, C54 was not tested during the Unit 3 End of Cycle 18 refueling outage as a result of a tube identification error. The Unit 3 End of Cycle 18 refueling outage steam generator inspection plan was to inspect 100% of all inservice tubes. The results of the inspection were such that 100% of the tubes were not required to be inspected per Technical Specification 4.4.5.2. Therefore, the missed inspection of the single 3A steam generator R16, C54 tube did not invalidate the surveillance inspection requirement. The 3A steam generator R16, C54 tube was tested in March 2000 and in March 2003 with no tube degradation identified. As such, there is no past or present operability concern related to the missed inspection of the single 3A steam generator R16, C54 tube. The purpose of this letter is to revise the previously submitted reports affected by this error.

In accordance with Turkey Point Technical Specification 4.4.5.5.a, FPL letter L-2001-238, dated October 20, 2001, submitted the tube plugging report as a result of the End of Cycle 18 refueling outage inservice inspection of steam generator tubes. This error has no impact on the tube plugging report submitted.

In accordance with the provisions of the ASME Code, Section XI, FPL letter L-2002-025, dated January 24, 2002, submitted the Inservice Inspection Report for inspections and examinations performed during the End of Cycle 18 refueling outage. The failure to inspect the 3A steam generator R16, C54 tube affects the information reported in the referenced document as follows:

- The 2001 Inservice Inspection Report Executive Summary reported that 100% of the A, B, and C steam generator tubes were eddy current tested. The number and extent of tubes examined in the 3A steam generator was 100% of all inservice tubes, with the exception of R16, C54. The revised Executive Summary is attached.

- Although there is no impact on the NIS-1 Report, a revised NIS-1 Report is provided to document the signatories' review of the affected documents which are referenced in the NIS-1 Report.
- The NIS-BB Owners' Data Report of Eddy Current Examination reported a total of 3169 tubes inspected for steam generator 3A (3E210A). The report should reflect a total of 3168 tubes inspected. The revised NIS-BB report is attached.

In accordance with Turkey Point Technical Specification 4.4.5.5.b, FPL letter L-2002-156, dated October 1, 2002, submitted the steam generator tube plugging inservice inspection 12-Month Special Report based on inspections performed during the End of Cycle 18 refueling outage. The failure to inspect the 3A steam generator R16, C54 tube affects the information reported in the referenced document as follows:

- FPL stated in the transmittal letter L-2002-156 that the number and extent of tubes examined during the inspection was 100% of all inservice tubes in steam generators 3A, 3B, and 3C. The number and extent of tubes examined in the 3A, 3B, and 3C steam generators was 100% of all inservice tubes, with the exception of R16, C54.
- The NIS-BB Owners' Data Report of Eddy Current Examination reported a total of 3169 tubes inspected for steam generator 3A (3E210A). The report should reflect a total of 3168 tubes inspected. The NIS-BB report submitted by L-2002-156 is the same report as submitted by L-2002-025. The revised NIS-BB report is attached.

Tube encoding errors occurred due to human errors in two areas: 1) selection of the correct tube and 2) making sure the manipulator was over the correct tube at the time of data acquisition. Implementation of electronic tube lists and use of an independent tube locating system that operates separately from the manipulator locating system have been put in place as corrective actions for the encoding errors. The above changes were implemented during the Unit 3 Cycle 20 refueling outage steam generator inservice inspection.

Should there be any questions, please contact Walter Parker at 305-246-6632.

Very truly yours,

Terry Jones

Terry O. Jones
Vice President
Turkey Point Nuclear Plant

OH

cc: USNRC, Document Control Desk, Washington, D.C.
Senior Resident Inspector, USNRC, Turkey Point Plant

July 14, 2003
R1

TURKEY POINT PLANT
UNIT 3

2001 REFUELING OUTAGE INSERVICE INSPECTION REPORT

Executive Summary

This Inservice Inspection report is for the 2001 Turkey Point Unit 3 refueling outage. This was the first outage of the third period in the third ten-year interval.

The attached Inservice Inspection summary tables detail the examinations performed during the outage.

The attached NIS-2 forms document the repairs and replacement activities which have taken place since the previous Unit 3 submittal, as well as those performed during the 2001 refueling outage.

Inservice examinations completed during this outage:

Augmented Feedwater Ultrasonic examinations were performed on the A, B and C Steam Generator Feedwater nozzles, adjacent piping, and fittings.

Also examined were selected components from the Reactor Coolant, Residual Heat Removal, Safety Injection, Main Feedwater, Chemical and Volume Control and Component Cooling Water systems.

Snubber Visual examinations and functional tests were conducted in accordance with ASME Section XI and Turkey Point Plant Technical Specifications as allowed under Relief Request number 4.

System pressure testing was conducted by FPL visual examiners to meet the requirements of ASME Section XI Code and Turkey Point Technical Specifications as allowed under Relief Request number 9, 11, 12, and 16 and implemented through applicable procedures.

Steam Generator eddy current examinations were conducted in steam generators 3A, 3B and 3C. The scope of the examinations included a 100% bobbin coil technique of all inservice tubes from tube end to tube end for A, B and C steam generator, with the exception of R16 C54 in 3A steam generator. Also, examined were 50% rotating pancake coil technique (Plus Point) of the Hot Leg tube expansion transitions. Additional Plus Point examinations were performed in approximately 50% of the Row 1 and Row 2 U-bends and in approximately 30% of the hot leg dents. The results of the examinations are documented on the NIS-BB, attached to this report.

IWL examinations were conducted in accordance with, "The Concrete Containment Inservice Inspection Program for Turkey Point Unit 3 & 4". This program was written in accordance with ASME Section XI 1992 Edition, 1992 Addenda as modified by Relief Request number 20 and 21. It is subject to the limitations and modifications of 10 CFR 50.55a(b)(2), 10 CFR 50.55a(g)(4), and 10 CFR 50.55a(g)(6). The requirements for the first inspection period as required by 10 CFR50.55a (g)(6)(ii)(B)(2) have been met as applicable to IWL, Program B of ASME Section XI.

July 14, 2003
R1

TURKEY POINT
UNIT 3

2001 REFUELING OUTAGE

FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS

FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS

1. **Owner:** Florida Power and Light Company
   700 Universe Blvd.
   Juno Beach, Florida 33408

2. **Plant:** Florida Power & Light Company
   Turkey Point Nuclear Power Plant
   9760 SW 344 Street
   Florida City, Florida 33035

3. **Plant Unit:** 3

4. **Owner Certificate of Authorization (if required):** N/A

5. **Commercial Service Date:** December 14, 1972

6. **National Board Number for Unit:** N/A

7. **Components Inspected:**

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Pressure Vessel	Babcock and Wilcox	610-0116	N/A	N-160
Regenerative Heat Exchanger	Westinghouse	3E200	N/A	N/A
Reactor Coolant System	Bechtel	N/A	N/A	N/A
Reactor Coolant Pump A	Westinghouse	3-618J713	N/A	N/A
Safety Injection System	Bechtel	N/A	N/A	N/A
RHR System	Bechtel	N/A	N/A	N/A
Steam Generator A, B, C	Westinghouse	16A-5885-1,2,3 FSGT-3001, 3002, 3003	N/A	N/A
Main Steam System	Bechtel	N/A	N/A	N/A
Auxiliary Feedwater	Bechtel	N/A	N/A	N/A
Main Feedwater System	Bechtel	N/A	N/A	N/A
Component Cooling	Bechtel	N/A	N/A	N/A

FORM NIS-1 Report (continued)

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8. **Examination Dates:** from 3/26/00 to 10/27/01

9. **Inspection Period Identification:** Third Period, from 2/22/2001 to 2/21/2004.

10. **Inspection Interval Identification:** Third Interval, from 2/22/1994 to 2/21/2004.

11. **Applicable Edition of Section XI:** 1989, No Addenda, (IWE) 1992/1992 Addenda

12. **Date/Revision of Inspection Plan:** September 21, 2001/Revision 2.

13. **Abstract of examinations and test. Include a list of examinations and tests and a statement concerning status of work required for the inspection plan.**

Inservice Examination of selected Class 1 and 2 components and piping systems of Florida Power and Light's (FPL) Turkey Point Unit 3 were performed during the 2001 Refueling Outage. This outage began on 9/29/01and ended 10/27/01. This was the first outage of the third period of the third ten-year interval.

The components and piping systems examined have been selected in accordance with the Third Ten-Year Inservice Inspection Program. This is an alternative Inservice Inspection Plan to the current plan described in American Society of Mechanical Engineers (ASME) Section XI, 1989 Edition, No Addenda. The alternative Plan allows examination selection for Unit 3 to be in accordance with "Florida Power & Light Turkey Point Unit 3 Risk-Informed Inservice Inspection Program (RR #27)."

Manual Ultrasonic, Visual, Magnetic Particle, and Liquid Penetrant non-destructive methods were used to examine components, piping, and their supports. FPL personnel supported by Washington Group International personnel performed the examinations. See the attached report: *Turkey Point Unit 3 Inservice Inspection* for examination scope and results.

FPL personnel supported by Westinghouse, Zetec, Duke Engineering and NDE Technology personnel conducted Eddy Current examinations on Steam Generators A, B, and C from 10/9/2001 through 10/13/2001. Fourteen tubes were plugged during this outage. See the attached NIS-BB report for the summary of examination results.

The Feedwater Nozzle piping augmented examinations were conducted on all three Steam Generators. The entire area from the nozzle ramp to a point one-pipe diameter out on the far side of the elbow was examined with ultrasonics. No reportable indications were noted.

Snubber visual examinations and functional testing were conducted in accordance with ASME Section XI and Turkey Point Technical Specifications as allowed under Relief

FORM NIS-1 Report (continued)

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Request number 4. Basic-PSA, Inc supplied examination and testing services. See the attached report: *Summary of Visual Examinations and Functional Testing of Snubbers* for examination scope and results.

System pressure testing was conducted by FPL visual examiners to meet the requirements of ASME Section XI Code and Turkey Point Technical Specifications as allowed under Relief Request number 9, 11, 12, and 16 and implemented through applicable procedures. See the attached report: *Summary of System Pressure Testing* for test boundaries and results.

No scheduled IWE examinations were required this outage. Preservice examinations were performed in areas of coating repairs to the containment metallic liner.

IWL examinations were conducted in accordance with "The Concrete Containment Inservice Inspection Program for Turkey Point Unit 3 & 4". This program was written in accordance with ASME Section XI 1992 Edition, 1992 Addenda as modified by Relief Request number 20 and 22. It is subject to the limitations and modifications of 10 CFR 50.55a(b)(2), 10 CFR 50.55a(g)(4), and 10 CFR 50.55a(g)(6). The requirements for the first inspection period as required by 10 CFR50.55a (g)(6)(ii)(B)(2) have been met as applicable to IWL, Program B of ASME Section XI. Precision Surveillance Corporation (PSC) supplied examination and testing services. See the attached report: *Turkey Point Nuclear Plant – Unit 3& 4, 30th Year Containment Tendon Surveillance* for examination scope and results.

14. Abstract of Results of Examinations and Tests.

Class 1

Reactor Pressure Vessel

Reactor Pressure Vessel's accessible interior surface and head mating surface were examined by the visual method. No reportable indications were identified.

The threaded areas of 2 RPV Closure Head nuts (#3 and #45) were damaged. A pre-service examination was performed on the replacement nuts. (Refer to section 15, "Abstract of Corrective Measures"). No additional reportable indications were identified.

Reactor Coolant Pump A

100% of the studs were examined with the ultrasonic method. No reportable indications were identified.

FORM NIS-1 Report (continued)

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Chemical and Volume Control

Chemical and Volume Control piping supports were examined with the visual method. No reportable indications were identified.

Steam Generators (Eddy Current)

Eddy Current examinations were performed of the tubing of the three Steam Generators. The results of the examinations are detailed in the NIS-BB report.

Regenerative Heat Exchanger

Per Relief Request # 3, a VT-3 visual examination was performed near the beginning of the outage to look for accumulated boric acid crystals and evidence of leakage and a VT-2 visual examination was performed during the system leakage test to look for evidence of leakage. No reportable indications were identified.

Reactor Coolant Piping

Reactor Coolant piping weld was examined with the volumetric method. No reportable indications were identified.

Class 2

Steam Generator A

An augmented examination was performed on the Secondary side for debris and damage. No reportable indications were identified.

Safety Injection Piping

Safety Injection piping welds and supports were examined with the surface, ultrasonic and visual methods. One support was found to have a heavy corrosion on load pins and spherical bearings (Refer to section 15, "Abstract of Corrective Measures"). No additional reportable indications were identified.

Residual Heat Removal Piping

Residual Heat Removal piping welds and supports were examined with surface, ultrasonic and visual methods. No reportable indications were identified.

FORM NIS-1 Report (continued) Page 5 of 8

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Main Feedwater Piping

A Main Feedwater piping weld and support was examined with the visual and ultrasonic methods. One support was found to have paint on upper and lower spherical bearings and the spherical bearings are frozen in-place (Refer to section 15, "Abstract of Corrective Measures"). No additional reportable indications were identified.

Augmented examinations were performed of the piping of the Steam Generator Feedwater nozzles ramp to a point one-pipe diameter past the elbow weld on all three loops with the ultrasonic method. Acceptable geometric indications were noted. No reportable indications were identified.

Auxiliary Feedwater Piping

An Auxiliary feedwater piping support was examined with the visual method. No reportable indications were identified.

Component Cooling Water Piping

Component Cooling Water piping supports were examined with the visual method. One support was found to have 50% corrosion of the nut on the base plate and 1 ¼" of support beam corroded at the bottom corner (Refer to section 15, "Abstract of Corrective Measures"). No additional reportable indications were identified.

Containment Spray Piping

A Containment Spray piping support was examined with the visual method. No reportable indications were identified.

IWE Examinations

Pre-service examinations were performed by the visual method on several areas of the containment building metallic liner (Refer to CR No. 00-0608 and PM00-03-156). No reportable indications were identified.

IWL Examinations

Visual examinations were performed on the tendons and associated components, containment concrete and reinforcement steel. Tendon 34V15 was found to have 11% water content with a second verification sample showing 16% in the grease, tendon 13H01 was found to have free water of .5 oz and tendon 13H03 was found to have free water of 3 drops. Also, location D2

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showed evidence of spalling and exposed rebar, location D11, D14 and D23 showed evidence of exposed rebar, location D22 has evidence of a grease leak at junction of ceiling and wall and location D24 has a void measuring .2" x 4". Both locations D22 and D24 are inaccessible due to safety concerns (Refer to section 15, "Abstract of Corrective Measures").

15. Abstract of Corrective Measures

Reactor Pressure Vessel Closure Head nuts 3-CH-N-3 and 3-CH-N-45 showed evidence of damaged threads. Engineering disposition required replacement of the nuts. Refer to CR No. 01-1964.

Safety Injection piping support (3-PRWH-5) was found to have a heavy corrosion on load pins and spherical bearings. Engineering disposition requires rust and corrosion to be removed and all components lubricated. Refer to CR No. 01-1680.

Main Feedwater piping support (7883-H-013-11) was found to have corrosion and paint on the spherical bearings. Engineering disposition found corrosion to be superficial in nature and attributed by the existing environment. The condition does not affect the structural integrity of the support and the strut continues to perform its intended function. There are no operability concerns and support is acceptable. Refer to CR No. 01-1934.

Component Cooling piping support (Strainer A) was found to have 50% corrosion of the nut on the base plate and 1 ¼" of support beam was corroded at the bottom corner. Engineering disposition requires support to be redesigned. The lower 18" is to be metallized and remaining support to be coated with approved coating. There are no operability concerns and support is acceptable for continued service until modification. Refer to CR No. 01-1481 sup. 1.

Tendon 34V15 exceeded the 10% by weight for water/grease content. Engineering disposition requires the tendon to be detensioned for corrosion evaluation, grease changed and the tendon refilled with new grease. Refer to CR No. 01-0801 sup. 1 and 4.

Tendons 13H01 and 13H03 showed evidence of free water. Engineering disposition required a grease sample to be sent for analysis. The sample resulted in less than 10% of water by weight. Final disposition required new grease caps to be installed regrease tendons at the Buttress #1 end. Refer to CR No. 01-1434 sup. 1.

Locations D2, D11, D14 and D23 show evidence of exposed rebar and spalling. Engineering disposition requires a repair to the grout over the exposed rebar and spalled areas deeper than ¼". In addition, location D22 and D23 evaluation showed the evidence of grease (D22) and gap (D23) to be acceptable. Refer to CR No. 01-1326 & 1684.

FORM NIS-1 Report (continued)

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A total of 14 tubes (SG 3A –1, SG 3B – 11, SG 3C – 2) were plugged in this inspection of the three steam generators. Of the 14 tubes, 12 tubes were identified with mechanical type wear at the broached tube supports. One tube was plugged due to a support wear indication in Steam Generator 3B that exceeded the technical specification plug limit of 40%, based on Plus Point technique. The remaining 11tubes were depth sized at <40% and were preventively plugged. Two more tubes were preventively plugged in steam generator 3B: one due to mechanical wear at an anti-vibration bar in the u-bend region, and one that did not permit inspection of the u-bend region due to restriction.

FORM NIS-1 Report (continued)

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We certify that a) the statements made in this report are correct, b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI, and c) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. N/A Expiration Date N/A

Date: 7/18/03 Signed: [signature] By RDGL

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Florida, and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 3/26/2000 to 10/27/2001, and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in the Owner's Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, tests, and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] FL-328

Inspector's Signature — National Board, State, Province, and Endorsements

Date: 7/21/03

FORM NIS-BB OWNERS' DATA REPORT FOR EDDY CURRENT EXAMINATION RESULTS
As required by the provisions of the ASME CODE RULES

EDDY CURRENT EXAMINATION RESULTS

PLANT: Turkey Point Unit 3

"Revision to Report CSI-NDE-01-064"

EXAMINATION DATE: October 9, 2001 through October 13, 2001

STEAM GENERATOR	TOTAL TUBES INSPECTED	TOTAL TUBES 20%-39%	TOTAL TUBES ≥40%, PIT & VOL	TUBES PREVENTIVELY PLUGGED (PTP)	TUBES PLUGGED THIS OUTAGE	TOTAL PLUGGED TUBES IN S/G
3E210A (Bobbin)	3168 (1)	4 (2)	0 (2)	0 (2)	0 (2)	See RPC (2)
3E210B (Bobbin)	3158 (2)	5 (2)	0 (2)	1 (2)	1 (2)	See RPC (2)
3E210C (Bobbin)	3163 (2)	17 (2)	0 (2)	0 (2)	0 (2)	See RPC (2)
3E210A (RPC)	1739 (2)	0 (2)	0 (2)	1 (2)	1 (2)	46 (2)
3E210B (RPC)	1820 (2)	0 (2)	1 (2)	9 (2)	10 (2)	67 (2)
3E210C (RPC)	1685 (2)	0 (2)	0 (2)	2 (2)	2 (2)	53 (2)

LOCATION OF INDICATIONS
(20% - 100%, PIT & VOL)

STEAM GENERATOR	AVB Bars	Tube Supports 1 thru 6 C/L	Tube Supports 1 thru 6 H/L	Freespan 6H thru 6C UBEND	Top of Tubesheet to #1 Support C/L	Top of Tubesheet to #1 Support H/L	Total Indications 20%-39%	Total Indications ≥40%, PIT VOL & PTP
3E210A (Bobbin)	4 (2)	0 (2)	0 (2)	0 (2)	0 (2)	0 (2)	4 (2)	0 (2)
3E210B (Bobbin)	11 (2)	0 (2)	0 (2)	0 (2)	0 (2)	0 (2)	11 (2)	0 (2)
3E210C (Bobbin)	23 (2)	0 (2)	0 (2)	0 (2)	0 (2)	0 (2)	23 (2)	0 (2)
3E210A (RPC)	0 (2)	n/a (2)	1 (2)	0 (2)	n/a (2)	0 (2)	1 (2)	0 (2)
3E210B (RPC)	1 (2)	4 (2)	5 (2)	0 (2)	n/a (2)	0 (2)	9 (2)	1 (2)
3E210C (RPC)	0 (2)	n/a (2)	2 (2)	0 (2)	n/a (2)	0 (2)	2 (2)	0 (2)

Remarks:
(1) Originally reported as 3169. (CSI-NDE-01-064, dated December 14,2001)
(2) No change from information originally reported in CSI-NDE-01-064, dated December 14, 2001.