



FPL

FORM NIS-1 OWNERS' REPORT FOR INSERVICE INSPECTIONS
As required by the provisions of the ASME CODE RULES

1. Owner Florida Power & Light Co., P.O. Box 14000, Juno Beach, Fl. 33408
2. Plant St. Lucie Nuclear Power Plant, P.O. Box 128, Ft. Pierce, Fl. 33454
3. Plant Unit 2 4. Owner Certificate of Authorization N/A
5. Commercial Service Date 08/08/83 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 VESSEL	COMBUSTION ENGINEERING	71172	N/A	N/A
PRESSURIZER	COMBUSTION ENGINEERING	71372	N/A	N/A
2A STEAM GENERATOR	COMBUSTION ENGINEERING	71272-1	N/A	N/A
REACTOR COOLANT PUMP 2A1	BYRON JACKSON	741-N-0001	N/A	N/A
REACTOR COOLANT PUMP 2A2	BYRON JACKSON	741-N-0002	N/A	N/A
REACTOR COOLANT PUMP 2B1	BYRON JACKSON	741-N-0003	N/A	N/A
REACTOR COOLANT PUMP 2B2	BYRON JACKSON	741-N-0004	N/A	N/A
REACTOR COOLANT PIPING	FLORIDA POWER & LIGHT CO.	LINE NOS. ON PAGE 7 OF 10	N/A	N/A
SAFETY INJECTION PIPING, CLASS 1	FLORIDA POWER & LIGHT CO.	LINE NOS. ON PAGE 7 OF 10	N/A	N/A
CHARGING/LETDOWN PIPING	FLORIDA POWER & LIGHT CO.	LINE NOS. ON PAGE 7 OF 10	N/A	N/A
MAIN STEAM PIPING	FLORIDA POWER & LIGHT CO.	LINE NOS. ON PAGE 7 OF 10	N/A	N/A
SAFETY INJECTION PIPING, CLASS 2	FLORIDA POWER & LIGHT CO.	LINE NOS. ON PAGE 7 OF 10	N/A	N/A
SHUTDOWN COOLING PIPING	FLORIDA POWER & LIGHT CO.	LINE NOS. ON PAGE 7 OF 10	N/A	N/A
CONTAINMENT SPRAY PIPING	FLORIDA POWER & LIGHT CO.	LINE NOS. ON PAGE 7 OF 10	N/A	N/A

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Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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NIS-1 REPORT (Continued)

8. Examination Dates: 2-1-1989 to 4-28-1989
9. Inspection Interval: First 10 Year 08-08-83 to 08-07-93;
Second Period 08-08-86 to 08-07-90

10. Abstract of Examinations

The Inservice Examination of selected Class I and II components and piping systems of Florida Power and Light Company's St. Lucie Plant, Unit 2, was performed during the refueling outage which began on February 1, 1989. This was the second and last outage scheduled for the second inspection period of the First 10-year Interval (Program B).

The components and piping systems examined were selected per the First Ten Year Inspection Plan, which was prepared per the requirements of Section XI of the ASME Code, 1980 Edition, through Winter of 1980 addenda.

Manual ultrasonic, liquid penetrant, magnetic particle, and visual nondestructive techniques were used in the examination of the selected components, piping systems, and their supports. See attached Summary Tables for complete examination results.

Mechanized ultrasonic techniques were utilized in the examination of the reactor vessel. The examinations were conducted by Southwest Research Institute.

Radiography was used in the examination of the 2B1 Reactor Coolant Pump. Duke Engineering & Services Inc. performed the examinations.

Eddy current examinations were conducted by Combustion Engineering from February 2, 1989 through March 1, 1989 on 2A and 2B Steam Generators. 8203 tubes in steam generator 2A and 8256 tubes in steam generator 2B were examined. See the attached NIS-BB report for the summary of examination results.

Snubber functional testing and visual examinations were conducted in accordance with St. Lucie Unit-2 Plant Technical Specification 3.7.10 and ASME Section XI. Testing services were supplied by Qualtec Testing Services Inc..

System pressure testing was conducted by the plant to applicable Plant Technical Specifications and procedures. The Instrumented Inspection Technique was used as applicable. A summary of the specific systems tested is included in this report on Page 6.

NIS-1 REPORT (Continued)

11. Conditions Noted12. Corrective Measures Recommended and Taken

CLASS I

REACTOR VESSEL

A visual examination was conducted on all accessible areas of the vessel interior including upper guide structure, core barrel, and upper head; code categories B-N-1, B-N-2, and B-N-3. Mechanized ultrasonic examinations were performed on the vessel circumferential welds, longitudinal welds, and inlet nozzles including nozzle inner radius exams. No rejectable indications were noted.

PRESSURIZER

Volumetric (UT) examinations were conducted on the upper shell to head weld, the upper shell longitudinal weld, the lower shell to bottom head weld, and the lower shell longitudinal weld. The support skirt to lower head weld was given a surface examination using magnetic particle. No recordable indications were noted.

Volumetric (UT) examinations were also conducted on four of the five nozzle to upper head welds, including inner radius exams. No recordable indications were noted.

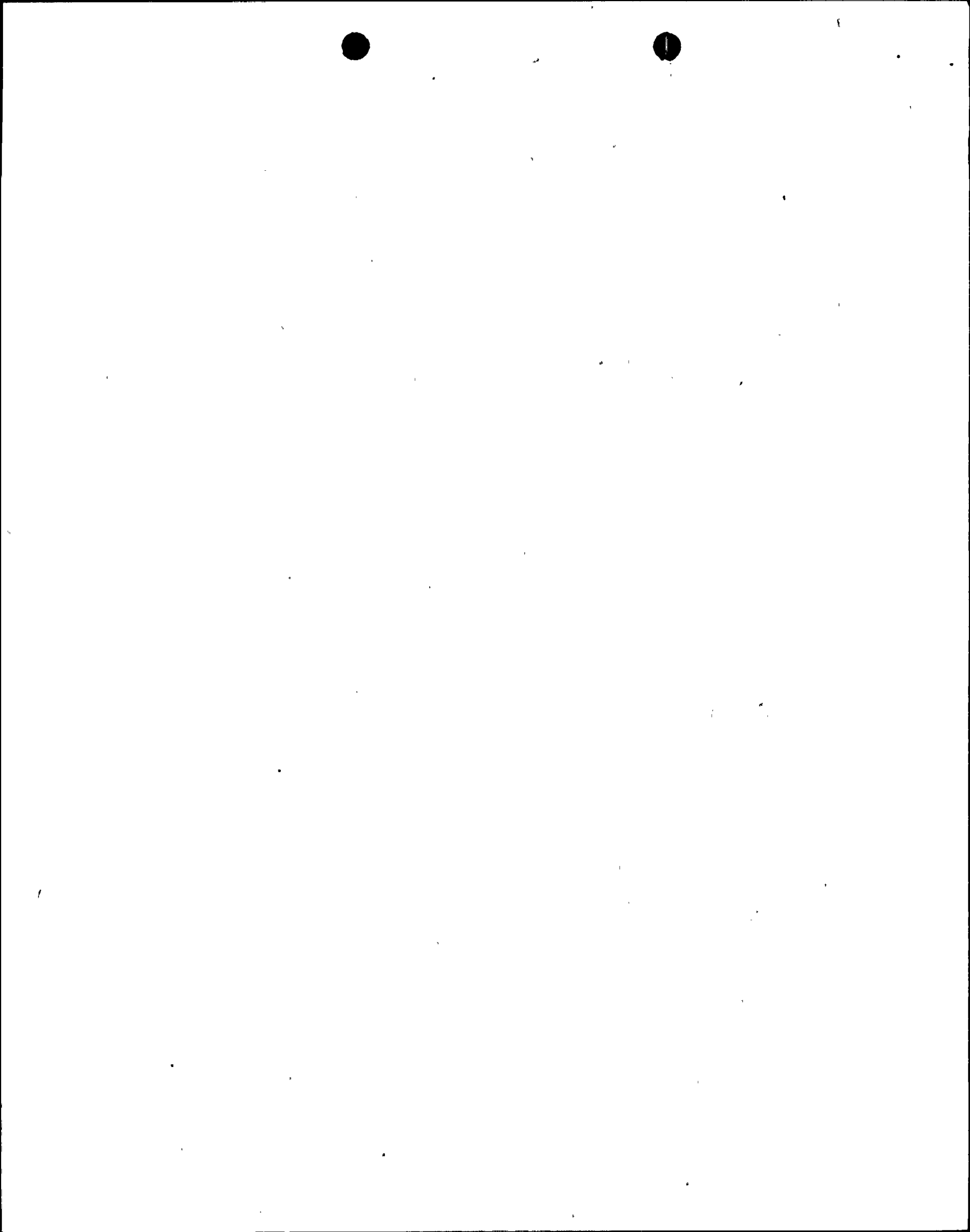
REACTOR COOLANT PUMPS

2B1 reactor coolant pump was disassembled for maintenance and examined. The pump casing welds were radiographed and the casing interior visually (VT-3) inspected. No recordable indications were noted. The pump casing ligament area, studs, and nuts were visually examined. The studs were also volumetrically (UT) examined in place. No recordable indications were noted. A Visual (VT-3,4) examination was performed on the four pump supports. No rejectable indications were noted.

In accordance with NRC Regulatory Guide 1.14, Flywheel Integrity, the flywheel bore and keyways on all four reactor coolant pumps were volumetrically (UT) examined. No recordable indications were noted.

MAIN REACTOR COOLANT PIPING

Surface (MT,PT), and volumetric (UT) examinations were conducted on seven circumferential welds, six longitudinal welds, and two branch connection welds. No rejectable indications were noted.



NIS-1 REPORT (Continued)

11. Conditions Noted
12. Corrective Measures Recommended and Taken

CLASS I (Cont.)

MAIN REACTOR COOLANT PIPING

In accordance with NRC Bulletin No. 88-11, a visual (VT-3) examination of the entire pressurizer surge line was conducted. The area of examination included the piping, pipe supports, whip restraints, and anchor bolts. No gross discernable distress or structural damage was noted.

PRESSURIZER SPRAY PIPING

Surface (PT) and Visual (VT-3,4) examinations were conducted as applicable on selected piping welds and supports. A rigid strut I.D. # SPS-237 was identified as misaligned and having loose parts. Further investigation identified the strut as one which was intentionally moved due to maintenance activities. The strut was reinspected when the maintenance activity was complete and found acceptable. No rejectable indications were noted.

SAFETY INJECTION/CHARGING/LETDOWN PIPING

Visual, surface, and volumetric examinations were conducted on selected piping welds, valves, and supports. Visual examination revealed incomplete thread engagement on valve V-2515 (one stud/nut). Per Plant procedures, the bolting was adjusted to meet minimum thread engagement, re-examined, and found acceptable.

CLASS II

STEAM GENERATORS (Secondary side)

Volumetric (UT) examinations were performed on the intermediate shell to cone weld and the feedwater nozzle to shell weld of 2A Steam Generator. Surface (MT,PT) examinations were conducted on the feedwater nozzle to shell weld and selected integral attachments. I.D. geometry was noted on the shell weld (UT).

MAIN STEAM

Visual (VT-3), surface (MT), and volumetric (UT) examinations were conducted as applicable on selected piping welds, supports and integral attachments. No rejectable indications were noted.

NIS-1 REPORT (Continued)

11. Conditions Noted
12. Corrective Measures Recommended and Taken

SAFETY INJECTION/SHUTDOWN COOLING PIPING
Visual, volumetric, and surface examinations were conducted on selected piping welds, valves and supports. No rejectable indications were noted.

SNUBBER EXAMINATION AND TESTING

Visual examination (VT-3,4) was conducted on 100% of the Unit's snubber population per Plant Technical Specifications. A total of 105 snubbers were functionally tested. This included the initial 10 % sample, the second sample was required due to failures, and the testing of previous failures. Complete examination and test results are on file at the Plant. A summary of the functional test results is included with this report.

SYSTEM LEAKAGE/PRESSURE TESTING

The system leakage tests and visual (VT-2) examinations of class I systems were performed by the Plant prior to plant startup. The system leakage test was conducted during Reactor Coolant (RCS) overpressure. The pressure testing documented on page 6 of this report includes all testing done from 11/25/87 up to 4/28/89.

All the above conditions were dispositioned in accordance with Plant Procedures.

The Examination Summary Tables included with this Report provide the results for the non-destructive examinations performed and a report on percent of examinations complete as of 6/30/89.

An explanation of the Summary Table format is also included.

NIS-1 REPORT(Continued)

Pressure Testing Summary Report

Test No.	System Description	Method/Type	Results
2-IPT-36	A,B, & C AUXILIARY FEEDWATER PUMP SUCTION	HYDROSTATIC	TEST SATISFACTORY
2-IPT-42	2B DIESEL OIL TRANSFER PUMP SUCTION	HYDROSTATIC	TEST SATISFACTORY
2-IPT-42	2A DIESEL OIL TRANSFER PUMP SUCTION	HYDROSTATIC	TEST SATISFACTORY
2-IPT-46	2A & 2B DIESEL OIL TRANSFER PUMP DISCHARGE	HYDROSTATIC	TEST UNSATISFACTORY
2-IPT-07	RCS SYSTEM LEAKAGE	SYS.LEAKAGE	TEST SATISFACTORY

CONDITIONS NOTED

The initial Hydrostatic Test 2-IPT-46 did not pass due to a leak in the cross - connect line 2-DO-23, which ties the Unit 2 system with the Unit 1 system. The affected line was isolated and the rest of the system was re-tested with no discrepant conditions noted. NCR 2-218 was generated to initiate repair of the line. Engineering has determined that there are no operability or safety concerns related to operating the unit with this line isolated. A Hydrostatic test will be conducted following the repair.

NIS-1 REPORT (Continued)

Line numbers for the Piping systems with items examined (NDE) this outage.

CLASS I

REACTOR COOLANT

I-30-RC-112
 I-30-RC-115
 I-30-RC-121
 I-30-RC-124
 I-12-RC-108
 I-12-RC-151
 I-3-RC-109
 I-3-RC-141
 I-2-RC-122
 I-2-RC-142
 I-2-RC-148

SAFETY INJECTION

I-12-SI-149
 I-12-SI-150
 I-10-SI-130

CHARGING/LETDOWN

I-2-CH-147
 I-2-CH-148

CLASS II

MAIN STEAM

I-35.5-MS-1
 I-34-MS-29
 I-34-MS-28

SHUTDOWN COOLING

I-12-SI-406
 I-12-SI-412
 I-12-SI-414
 I-10-SI-362

SAFETY INJECTION
(HPSI/LPSI)

I-12-SI-103
 I-12-SI-164
 I-12-SI-410
 I-6-SI-112
 I-6-SI-129
 I-6-SI-213

CONTAINMENT SPRAY

I-24-CS-2

NIS-1 REPORT(Continued)

We certify that the statement made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

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

Date 7/8/89 Signed Florida Power & Light Co. By J. Mosala
Owner

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and / or the State or Province of Ohio and employed by Arkwright Mutual Insurance Company of Norwood, Mass. have inspected the components described in this Owner's Data Report during the period 1 February 1989 to 28 April 1989 and state that to the best of my knowledge and belief, the owner has performed examinations and taken corrective measures described in this Owner's Data Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations 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.

Charles A. Fells Commissions NB7719
Inspector's Signature National Board, State, Province,
and Endorsements

Date 7-11-89



NIS-1 REPORT

1. Owner: Florida Power and Light Co., 700 Universe Blvd., Juno Bch.FL.33408
2. Plant: St. Lucie Nuclear Power Plant, P.O.Box 128, Ft. Pierce,FL. 33454
- 3.Plant Unit: 2 4.Owner Certificate of Authorization N/A
- 5.Commerical Service Date: 8 August 1983
- 6.Unit National Board No. N/A

REPORT NUMBER	ORGANIZATION	DESCRIPTION OF SERVICES
JNS-PSL-200-89	FPL	INSERVICE INSPECTION FINAL REPORT
	FPL	EDDY CURRENT EXAMINATION OF STEAM GENERATORS FINAL REPORT
	FPL	SNUBBER VISUAL EXAMINATION AND FUNCTIONAL TESTING FINAL REPORT
	DUKE	REACTOR COOLANT PUMP 2B1 CASING WELD INSPECTION REPORT
	CE	EDDY CURRENT EXAMINATION OF STEAM GENERATORS
IR-ISI-128	CE	REACTOR PRESSURE VESSEL VISUAL INSERVICE INSPECTION NONDESTRUCTIVE EXAMINATION REPORT
Project 2701	SwRI	1989 MECHANIZED INSERVICE EXAMINATION REPORT FOR THE REACTOR PRESSURE VESSEL
2-IPT-07, 2-IPT-42 2-IPT-36, 2-IPT-46	FPL	TEST DOCUMENTATION FOR INSERVICE PRESSURE TESTING


FPL

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: St. Lucie Unit # 2						
EXAMINATION DATES: February 9, 1989 Thru March 1, 1989						
STEAM GENERATOR	TOTAL TUBES INSPECTED	TOTAL INDICATIONS		TUBES PLUGGED AS PREVENTIVE MAINTENANCE	TUBES PLUGGED THIS OUTAGE	TOTAL PLUGGED TUBES IN S/G
		20% - 39%	40% - 100%			
A	8203	52	6	7	13	221
B	8256	41	4	3	7	162

LOCATION OF INDICATIONS

(20% - 100%)

STEAM GENERATOR	U BENDS DHB to DCB	EGGCRATES 1 TO 7		PARTIAL SUPPORTS 8 AND 9		TOP OF TUBE SHEET TO # 1 EGGCRATE	
		H/L	C/L	H/L	C/L	H/L	C/L
A	54	1	2	0	0	0	1
B	40	0	1	2	0	1	1

Remarks:

ASR = Adjacent stay rod tube
TRS = Tube restriction
TBP = To be plugged

CERTIFICATION OF RECORD

We certify that the statements in this report are correct and the tubes inspected were tested in accordance with the requirements of Section XI of the ASME Code.

Florida Power & Light Co.

5/15/89

DATE

J. M. ...

BY