



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

July 27, 2006

Mr. J. A. Stall
Senior Vice President, Nuclear and Chief Nuclear Officer
Florida Power and Light Company
P. O. Box 14000
Juno Beach, FL 33408-0420

SUBJECT: ST. LUCIE NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT
05000335/2006003 AND 05000389/2006003

Dear Mr. Stall:

On June 30, 2006, the US Nuclear Regulatory Commission (NRC) completed an inspection at your St. Lucie Plant Units 1 and 2. The enclosed integrated inspection report documents the inspection findings which were discussed on July 6, 2006, with Mr. Johnston and other members of your staff.

The inspections examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection no findings of significance were identified. However, a licensee-identified violation which was determined to be of very low safety significance is listed in this report. NRC is treating this violation as a non-cited violation (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy because of the very low safety significance of the violation and because it is entered into your corrective action program. If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the St. Lucie facility.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARs) component of NRC's document system ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Joel T. Munday, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Docket Nos.: 50-335, 50-389
License Nos.: DPR-67, NPF-16

Enclosure: Inspection Report 05000335/2006003, 05000389/2006003
w/Attachment - Supplemental Information

cc w/encl: (See page 3)

FPL

2

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARs) component of NRC's document system ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Joel T. Munday, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Docket Nos.: 50-335, 50-389
License Nos.: DPR-67, NPF-16

Enclosure: Inspection Report 05000335/2006003, 05000389/2006003
w/Attachment - Supplemental Information

cc w/encl: (See page 3)

X PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE X NON-SENSITIVE

ADAMS: X Yes ACCESSION NUMBER: _____

OFFICE	RII:DRP	RII:DRP	RII:DRS	RII:DRS	RII:DRS	RII:DRS	
SIGNATURE	TLH /RA/	SPS /RA/	KVD /RA/	SJV /RA/	LFL /RA/	BRC /RA/	
NAME	THoeg	SSanchez	KVanDoorn	SVias	LLake	BCrowley	
DATE	July 26, 2006	July 28, 2006	July 28, 2006	July 28, 2006	July 28, 2006	July 28, 2006	July 28, 2006
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY

DOCUMENT NAME: E:\Filenet\ML062080151.wpd

cc w/encl:

William E. Webster
Vice President, Nuclear Operations
Florida Power & Light Company
Electronic Mail Distribution

Gordon L. Johnston
Vice President
St. Lucie Nuclear Plant
Florida Power & Light Company
Electronic Mail Distribution

Christopher R. Costanzo
Plant General Manager
St. Lucie Nuclear Plant
Electronic Mail Distribution

Bill Parks
Operations Manager
St. Lucie Nuclear Plant
Electronic Mail Distribution

Terry L. Patterson
Licensing Manager
St. Lucie Nuclear Plant
Electronic Mail Distribution

Mark Warner, Vice President
Nuclear Operations Support
Florida Power & Light Company
Electronic Mail Distribution

Rajiv S. Kundalkar
Vice President - Nuclear Engineering
Florida Power & Light Company
Electronic Mail Distribution

M. S. Ross, Managing Attorney
Florida Power & Light Company
Electronic Mail Distribution

Marjan Mashhadi, Senior Attorney
Florida Power & Light Company
Electronic Mail Distribution

William A. Passetti
Bureau of Radiation Control
Department of Health
Electronic Mail Distribution

Craig Fugate, Director
Division of Emergency Preparedness
Department of Community Affairs
Electronic Mail Distribution

J. Kammel
Radiological Emergency
Planning Administrator
Department of Public Safety
Electronic Mail Distribution

Douglas Anderson
County Administrator
St. Lucie County
2300 Virginia Avenue
Ft. Pierce, FL 34982

Distribution w/encl: (See page 4)

FPL

4

Report to J.A. Stall from Joel T. Munday dated July 27, 2006

SUBJECT: ST. LUCIE NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT
05000335/2006003 AND 05000389/2006003

Distribution w/encl:

B. Moroney, NRR

L. Slack, RII EICS

RIDSNRRDIPMLIPB

PUBLIC

OEMAIL

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-335, 50-389

License Nos.: DPR-67, NPF-16

Report Nos.: 05000335/2006003, 05000389/2006003

Licensee: Florida Power & Light Company (FPL)

Facility: St. Lucie Nuclear Plant, Units 1 & 2

Location: 6351 South Ocean Drive
Jensen Beach, FL 34957

Dates: April 1 - June 30, 2006

Inspectors: T. Hoeg, Senior Resident Inspector
S. Sanchez, Resident Inspector
P. Kim VanDoorn, Senior Reactor Inspector
B. Crowley, Senior Reactor Inspector
L. Lake, Reactor Inspector
S. Vias, Senior Reactor Inspector

Approved by: Joel Munday,
Reactor Projects Branch 3
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000335/2006-003, 05000389/2006-003; 04/01/2006 - 06/30/2006; St. Lucie Nuclear Plant, Units 1 & 2; Routine Integrated Report.

The report covered a 3-month period of inspection by resident inspectors and an announced inspection by Region II reactor inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC- Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

Violations of very low safety significance, which were identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective actions are listed in Section 4OA7 of this report.

Enclosure

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at or near full Rated Thermal Power (RTP) for the entire inspection report period.

Unit 2 operated at or near full RTP until April 23, 2006, when it was shutdown for a refueling outage. On June 11, 2006, Unit 2 was restarted and reactor power raised to 45 percent RTP while maintenance was performed on the condensate system. On June 15, 2006, Unit 2 was manually tripped due to a hydraulic oil leak on the number 1 turbine throttle valve hydraulic actuator assembly. On June 16, 2006, Unit 2 was restarted and reached full RTP on June 20, 2006 where it remained until June 29, 2006 when reactor power was lowered to 98 percent for digital feedwater control system troubleshooting and evaluation. Unit 2 was returned to full RTP on June 30, 2006 where it remained through this inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection

a. Inspection Scope

During the week of June 12, the inspectors reviewed and verified the status of licensee actions taken in accordance with their procedural requirements prior to the onset of hurricane season. The inspectors reviewed lessons learned and corrective actions taken from the 2004 and 2005 hurricane seasons. The inspectors reviewed Administrative procedure ADM-04.01, Hurricane Season Preparation, Revision 15 and performed site walkdowns to verify the licensee had made the required preparations. The inspectors performed reviews of plant exterior areas and risk significant systems vulnerable to high winds and hurricane conditions including the following:

- Unit 1 and 2 Turbine Buildings
- Unit 1 and 2 Intake Cooling Water (ICW) Pump Stations
- Unit 1 Component Cooling Water (CCW) Pump Station

b. Findings

No findings of significance were identified.

Enclosure

1R04 Equipment Alignment

.1 Partial Walkdowns

a. Inspection Scope

The inspectors conducted four partial equipment alignment verifications of the safety-related systems listed below to review the operability of required redundant trains or backup systems while the other trains were inoperable or out of service (OOS). The inspectors looked to identify any discrepancies that could impact the function of the system, and therefore, potentially increase risk. These inspections included reviews of applicable Technical Specifications (TS), plant lineup procedures, operating procedures, and piping and instrumentation drawings (P&ID), which were compared with observed equipment configurations. The inspectors also reviewed applicable reactor control operator (RCO) logs; equipment OOS and operator workaround (OWA) lists; active temporary system alterations (TSA); and outstanding condition reports (CRs) regarding system alignment and operability.

- 1B High Pressure Safety Injection (HPSI) System During Maintenance on 1A HPSI System
- 1A Emergency Diesel Generator (EDG) During Maintenance on 1B EDG
- 2A EDG During Maintenance on 2B EDG
- 1A Emergency Core Cooling System (ECCS) Ventilation System During Maintenance on 1B ECCS Ventilation System

b. Findings

No findings of significance were identified.

.2 Complete Walkdown

a. Inspection Scope

On May 31, 2006 and June 1, 2006, the inspectors performed a detailed alignment verification of the Unit 2A HPSI using P&ID 2998-G-078, and applicable system training guides. The inspectors reviewed relevant portions of the Updated Final Safety Analysis Report (UFSAR) and TS. This detailed walkdown also verified electrical power requirements, component labeling, and associated support systems status. The walkdown also included evaluation of system piping and supports to verify that: 1) piping and pipe supports did not show evidence of water hammer; 2) oil reservoir levels indicated normal; 3) snubbers did not indicate any observable hydraulic fluid leakage; 4) hangers were within the setpoints; and 5) component foundations were not degraded. Furthermore, the inspectors examined OOS lists; active open work orders (WO); the HPSI system health report; and open CRs that could affect system alignment and operability.

Enclosure

b. Findings

No findings of significance were identified.

1R05 Fire ProtectionFire Protection - Toursa. Inspection Scope

The inspectors conducted tours of the seven areas listed below to verify they conformed with procedure AP-1800022, Revision 38E, Fire Protection Plan. The inspectors specifically examined any transient combustibles in the areas and any ongoing hot work or other potential ignition sources. The inspectors also assessed whether the material condition, operational status, and operational lineup of fire protection systems, equipment and features were in accordance with the Fire Protection Plan. Furthermore, the inspectors evaluated the use of any compensatory measures being performed in accordance with the licensee's procedures and Fire Protection Plan.

- Unit 1 ECCS Pump Rooms
- Unit 2 CCW Building
- 1B EDG Room
- Unit 2 Control Room
- Unit 2 Containment Building
- 2A EDG Fuel Oil Tank Building
- 2B EDG Fuel Oil Tank Building

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures.1 Internal Floodinga. Inspection Scope

The inspectors reviewed UFSAR Section 3.4, Water Level (Flood) Design and UFSAR Table 3.2-1, Design Classification of Structures, System and Components for the Unit 1 Safeguards Room. Equipment affected by a flood in this room included HPSI, Low Pressure Safety Injection (LPSI), and Containment Spray (CS). The inspectors also reviewed procedure 1-ONP-24.01, Reactor Auxiliary Building Flooding, and verified certain actions required to be taken could be accomplished as written. The inspectors reviewed the Unit 1 Safeguards Room sump level indication and control system preventative maintenance (PM) schedule. The inspectors also verified the corrective action program (CAP) was being used to identify equipment issues that could be impacted by potential internal flooding.

Enclosure

b. Findings

No findings of significance were identified.

.2 External Flooding

a. Inspection Scope

The inspectors reviewed lessons learned from previous hurricane events at St. Lucie including the control of heavy winds and rains. The inspectors performed detailed walkdowns of Unit 1 and Unit 2 Auxiliary Feedwater (AFW) pump areas and reviewed the applicable UFSAR section for flooding including specific plant design features to accommodate the maximum flood level. The inspectors reviewed UFSAR Section 13.8.2.3.1 requirements for beach dune inspections and verified the surveillance was completed after the last hurricane. The inspectors also reviewed ADM-04.01, Hurricane Season Preparation, with regard to protective actions to prevent excessive flooding in the AFW Pump area; and reviewed AP-0005753, Severe Weather Preparations, with regard to potential external flooding issues.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

During the week of May 15, 2006, the inspectors observed hydrolazing tube cleaning activities of the 2B CCW heat exchanger in accordance with MMP-14.01, CCW Heat Exchanger Cleaning And Repair. The inspectors also witnessed Eddy Current Testing (ECT) of the 2B CCW heat exchanger and reviewed applicable ECT procedures, equipment calibration records, ECT analyst qualification certifications, and CCW Heat Exchanger Component Specific Technique Sheets. Furthermore, the inspectors also interviewed the responsible system engineer, reviewed FPL Specification-M-081, CCW Heat Exchanger Tube Integrity Inspection, and examined applicable work order packages to verify the total number of plugged tubes were within analyzed limits for the 2B CCW heat exchanger. In addition, the inspectors review of the records and documentation indicated that the frequency of inspection was sufficient to detect degradation to ensure TS operability prior to loss of heat removal capabilities below design basis values.

b. Findings

No findings of significance were identified.

1R08 Inservice Inspection (ISI) Activities

.1 Piping Systems ISI

a. Inspection Scope

From May 1-5, 2006, the inspectors reviewed the implementation of the licensee's ISI program for monitoring degradation of the reactor coolant system boundary and the risk significant piping system boundaries for Unit 2. The inspectors selected a sample of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI required risk-informed ISI Program examinations.

The inspectors conducted an on-site review of nondestructive examination (NDE) activities to evaluate compliance with TS, ASME Section XI and ASME Section V requirements, 1998 Edition through 2000 Addenda, and to verify that indications and defects (if present) were appropriately evaluated and dispositioned in accordance with the requirements of ASME Section XI, IWB-3000 or IWC-3000 acceptance standards. Specifically, the inspectors observed the following examinations:

Ultrasonic Testing (UT):

- 30"- RC-115-3, Reactor Coolant Pipe Weld
- 6"- SI-113-FW-6, Safety Injection Pipe to Penetration Weld

Liquid Dye Penetrant (PT)

- 6" - SI-113-FW-5, Safety Injection Elbow to Elbow Weld
- 6" - SI-113-SW-1, Safety Injection Elbow to Pipe Weld
- 6" - SI-113-FW-6, Safety Injection Pipe to Penetration Weld

The inspectors reviewed the following examination records in addition to the records for the above observed examinations:

Ultrasonic Testing (UT):

- 6" - SI-113-FW-5, Safety Injection Elbow to Elbow Weld
- 6" - SI-113-SW-1, Safety Injection Elbow to Pipe Weld

Qualification and certification records for examiners, inspection equipment, and consumables along with the applicable NDE procedures for the above ISI examination activities were reviewed and compared to requirements stated in ASME Section V and Section XI.

During ultrasonic examination of weld RC-115-3 the inspectors observed detection of a recordable indication. Subsequently the inspectors evaluated its disposition which concluded that the indication can be classified as contained wholly within the middle third of the weld material (subsurface) and is acceptable in accordance with the applicable requirements of ASME Section XI, Article IWB-3514.

Enclosure

Pressure boundary welding activities associated with ASME Class 2 components were reviewed to verify the welding process and examinations were performed in accordance with the ASME Code Sections III, V, IX, and XI requirements. The inspectors reviewed weld data sheets, welder qualification records, weld rod material certifications, and preservice examination results for the following welds:

- 12"-CS-10-2001, Containment Spray Pipe Weld
- 12"-CS-11-2008, Containment Spray Pipe Weld

The inspectors reviewed an ISI self-assessment and associated corrective actions to confirm that the licensee had appropriately described the scope of the problems and had initiated appropriate corrective actions.

b. Findings

No findings of significance were identified.

.2 Boric Acid Corrosion Control Program (BACCP) ISI

a. Inspection Scope

From May 1-5, 2006, the inspectors reviewed the licensee's BACC program to ensure compliance with commitments made in response to NRC Generic Letter 88-05 "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary" and Bulletin 2002-01 "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity."

The inspectors conducted an on-site record review and an independent walk-down of the containment building, which is not normally accessible during at-power operations to evaluate compliance with licensee BACC program requirements and 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requirements. In particular, the inspectors verified that licensee visual examinations focused on locations where boric acid leaks can cause degradation of safety significant components and that degraded or non-conforming conditions were properly identified in the licensee's corrective action system.

The inspectors reviewed the licensee's program implementation procedures and a sample of CRs to ensure that leaks were being identified and addressed at an appropriate threshold. A sample review of engineering evaluations was also completed for boric acid deposits found on reactor coolant system piping and other ASME Code Class components to verify that the minimum design code required section thickness had been maintained for any affected component(s).

Enclosure

b. Findings

No findings of significance were identified.

.3 Steam Generator (SG) Tube ISI

a. Inspection Scope

From May 8-12, 2006 the inspectors reviewed the Unit 2 (SL2-16) SG tube ECT examination activities to ensure compliance with TS, applicable industry operating experience and technical guidance documents, and ASME Code Section XI requirements.

The inspectors reviewed licensee SG inspection activities to ensure that ECT inspections conducted this outage conformed to the "Eddy Current Examination Implementation Plan for Steam Generator Tubing at St. Lucie Unit 2." The inspectors reviewed the SG examination scope, ECT acquisition procedures, Examination Technique Specification Sheets, ECT analysis guidelines, the current SG specific assessment of potential degradation mechanisms, SG Operational Assessment and Condition Monitoring documents from the previous Unit 2 outage, and the SG tube plugging and stabilization, sleeving and In-Situ testing procedures. The inspectors reviewed documentation to ensure that the ECT probes and equipment configurations used were qualified to detect the expected types of SG tube degradation in accordance with Appendix H, "Performance Demonstration for Eddy Current Examination" of Electric Power Research Institute "Pressurized Water Reactor Steam Generator Examination Guidelines: Revision 6." Additionally, the inspectors reviewed the qualification and certification records for the ECT standards, SG tube plugs, SG tube stabilizers, and ECT data analysis and resolution analysis personnel.

The secondary side water chemistry and loose parts monitoring programs were reviewed to ensure they were consistent with applicable industry guidance documents. The inspectors independently reviewed the licensee's secondary side visual examination results and associated evaluations for loose parts that are not retrievable and will remain in the steam generators during the next operating cycle. The inspectors observed ECT acquisition, resolution analysis, tube stabilization, and tube plugging activities.

b. Findings

No findings of significance were identified.

.4 Reactor Pressure Vessel Head (RPVH) Penetration Inspection Activities

a. Inspection Scope

The inspectors observed activities relative to inspection of the RPVH nozzles in response to NRC Bulletins 2001-01, 2002-01, 2002-02 and NRC Order EA-03-009 Modifying Licenses dated February 20, 2004. The inspection included review of NDE

Enclosure

procedures, assessment of NDE personnel training and qualification, and observation and assessment of visual (VT), PT and UT examinations. Discussions were also held with contractor representatives and other licensee personnel. The activities were examined to verify licensee compliance with regulatory requirements.

The inspectors reviewed the results of the licensee's Bare Metal VT Examination, and specifically reviewed RPVH bare metal VT video tape for RPVH Nozzle Nos. 10 (Quadrant c), 29(d), 31(a,b,d), 37(d), 46(a), 52(a), 57(d), 63(a,b,d) and 71(d) (including surface area around nozzles), and reviewed still digital pictures for Nozzle Nos. 31, 45, 50, 63, and 72. The examinations were reviewed in order to verify absence of boron crystals indicative of a leak and to verify the integrity of the RPVH.

The inspectors reviewed the results of the licensee's Volumetric UT Examination of RPVH Nozzles, and specifically observed a portion of in-process UT scanning and reviewed the UT results for RPVH Nozzle Nos. 25, 42, 93, and 101. UT observations and reviews included review of results intended to assess for leakage into the interference fit zone of the nozzles.

The inspectors reviewed training documents and procedures to determine that the examinations were performed by qualified and knowledgeable personnel, that Visual and NDE inspections were being performed in accordance with approved and demonstrated procedures, and that, in addition to qualification to Code requirements, VT, UT and ET personnel had additional training and experience on RPVH inspections.

The inspectors reviewed the activities conducted in preparation for repairs if needed. This included review of the welding procedure specification and procedure qualification record, welding material certified material test report, welder qualification records, and welding machine calibration records.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program

Resident Inspector Quarterly Review

a. Inspection Scope

On June 20, 2006, an inspector observed and assessed licensed operator actions during a simulator requalification evaluation. During this simulator evaluation, the inspector witnessed the operating crew respond to the simulated electrocution of a maintenance worker followed by a loss of vital electrical bus. The inspector also reviewed simulator physical fidelity, especially regarding recent modifications implemented in the main control room. The inspector specifically evaluated the following attributes related to the operating crews' performance:

Enclosure

- Clarity and formality of communication
- Prioritization, interpretation, and verification of alarms
- Control board operation and manipulation, including high-risk operator actions
- Oversight and direction provided by operations supervision, including ability to identify and implement appropriate TS actions, regulatory reporting requirements, and emergency plan actions and notifications
- Effectiveness of the post-evaluation critique

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

.1 Quarterly Evaluation

a. Inspection Scope

The inspectors reviewed the reliability and deficiencies associated with the two systems listed below, including associated condition reports. The inspectors verified the licensee's maintenance effectiveness efforts met the requirements of 10 CFR 50.65 and Administrative Procedure ADM-17.08, Implementation of 10 CFR 50.65, Maintenance Rule. The inspectors focused on the licensee's system functional failure determination, a(1) and a(2) classification determination, corrective actions, and the appropriateness of established performance goals and monitoring criteria. The inspectors also attended applicable expert panel meetings, and interviewed responsible engineers. The inspectors reviewed associated system health reports, and the licensee's goal setting and monitoring requirements.

- Unit 1 Control Room Ventilation
- Unit 2 CCW System

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the risk assessments for the following five Systems, Structures, or Components (SSCs) or a combination thereof that were non-functional due to planned and/or emergent work. The inspectors also walked down and/or reviewed the scope of work to evaluate the effectiveness of licensee scheduling, configuration control, and management of online risk in accordance with 10 CFR 50.65(a)(4) and applicable program procedure ADM-17.16, Implementation of the Configuration Risk Management Program. The inspectors interviewed responsible Senior Reactor

Enclosure

Operators on-shift, verified actual system configurations, and specifically evaluated results from the online risk monitor (OLRM) for the combinations of OOS risk significant SSCs listed below:

- 1C CCW pump while 1A ECCS pumps were OOS
- 1A EDG while 1A ECCS pumps were OOS
- Unit 2 Mode 3 conditions following refueling outage
- 1B EDG while the 1B ECCS room ventilation was OOS
- 1C auxiliary feedwater pump OOS

b. Findings

No findings of significance were identified.

1R14 Non-Routine Events

a. Inspection Scope

On April 26 and 27, 2006, the inspectors observed and reviewed operator performance and response during portions of Unit 2 reduced reactor coolant inventory operations while installing steam generator nozzle dams in preparation for steam generator tube inspections. These activities were performed and controlled in accordance with St. Lucie procedures 2-NOP-1.04 and ADM 9.14.

On June 15, 2006, Unit 2 was manually tripped due to a hydraulic oil leak on the number 1 turbine throttle valve actuator assembly resulting from a failed o-ring seal. The inspectors responded to the control room and observed actions taken by the Unit 2 operators on-shift as they performed various system operating procedures and standard post trip actions. The inspector reviewed the sequence of events recorder information to determine if reactor plant systems operated as expected following the trip. The inspectors also observed the Unit 2 reactor startup preparations and as well as portions of the power ascension. The licensee documented the manual trip in their CAP as CR 2006-18379.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following six condition report interim dispositions and operability determinations to ensure that operability was properly supported and the affected SSCs remained available to perform its safety function with no increase in risk. The inspectors reviewed the applicable UFSAR, and associated supporting documents

Enclosure

and procedures, and interviewed plant personnel to assess the adequacy of the interim disposition.

- CR 2006-9051, Part 21 for AFW Pump Bearings
- CR 2006-11734, Unit 2 HPSI Piping Restraints
- CR 2006-12045, 2A LPSI Pump Seal Leak
- CR 2006-15130, 2A ICW Pump Breaker
- CR 2006-15933, 1B EDG Breaker
- CR 2006-16082, 1C ICW Pump Pressure Gage Calibration

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed licensee procedures QI-3-PSL-1, Design Control, ENG-QI-1.7, Design Input Verification, ADM-17.11, 10 CFR 50.59 Screening, and observed part of the licensee's activities to implement a design change that modified the 1A1 Fuel Oil Day Tank Vent Path. The licensee installed a permanent tank vent path at a higher level than the previous vent path location to provide more accurate control room annunciator actuation and operator response. The inspectors reviewed the associated 10 CFR 50.59 screening against the system design basis documents to verify that the modifications had not affected system operability and availability. The inspectors reviewed selected ongoing and completed work activities to verify that installation was consistent with the design control documents listed in CRN 03167-13134.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

The inspectors witnessed and reviewed WO post maintenance test (PMT) activities of the six risk significant SSCs listed below. The following aspects were inspected: (1) Effect of testing on the plant recognized and addressed by control room and/or engineering personnel; (2) Testing consistent with maintenance performed; (3) Acceptance criteria demonstrated operational readiness consistent with design and licensing basis documents such as TS, UFSAR, and others; (4) Range, accuracy and calibration of test equipment; (5) Step by step compliance with test procedures, and applicable prerequisites satisfied; (6) Control of installed jumpers or lifted leads; (7) Removal of test equipment; and, (8) Restoration of SSCs to operable status.

Enclosure

The inspectors also reviewed problems associated with PMTs that were identified and entered into the licensee's CAP.

- WO 36002866, 1A HPSI Pump Motor Inspection
- WO 36001044, Ultimate Heat Sink Valve SB-37-1 Maintenance
- WO 36012357, 1B EDG Output Breaker
- WO 35022963, Digital Control System Relay Modification
- WO 36013593, Unit 1 Power Operated Relief Valve Breaker
- WO 36013549, HVS-1B Containment Air Cooler Damper

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities

a. Inspection Scope

Outage Planning, Control and Risk Assessment

During pre-outage planning, the inspectors reviewed the risk reduction methodology employed by the licensee for SL2-16, in particular the Risk Assessment Team (RAT) notebook. The inspectors also examined the licensee's implementation of shutdown safety assessments during SL2-16 in accordance with Administrative Procedure 0-AP-010526, Outage Risk Assessment and Control, to verify whether a defense in depth concept was in place to ensure safe operations and avoid unnecessary risk.

Furthermore, the inspectors regularly monitored outage planning and control activities in the Outage Control Center (OCC), and interviewed responsible OCC management, during the outage to ensure SSC configurations and work scope were consistent with TS requirements, site procedures, and outage risk controls.

Monitoring of Shutdown Activities

The inspectors witnessed the shutdown and cooldown of Unit 2 beginning on April 23, 2006. The inspectors also monitored plant parameters and verified that shutdown activities were conducted in accordance with TS and applicable operating procedures, such as: 2-GOP-123, Turbine Shutdown-Full Load to Zero Load; 2-GOP-203, Reactor Shutdown; 2-GOP-305, Reactor Plant Cooldown-Hot Standby To Cold Shutdown; and 2-NOP-03.05, Shutdown Cooling.

Outage Activities

The inspectors examined outage activities to verify that they were conducted in accordance with TS, licensee procedures, and the licensee's outage risk control plan. Some of the more significant inspection activities accomplished by the inspectors were as follows:

Enclosure

- Walked down selected safety-related equipment clearance orders
- Verified operability of Reactor Cooling System (RCS) pressure, level, flow, and temperature instruments during various modes of operation including reduced RCS inventory
- Verified electrical systems availability and alignment
- Verified shutdown cooling system and spent fuel pool (SFP) cooling system operation
- Evaluated implementation of reactivity controls
- Reviewed control of containment penetrations
- Examined Foreign Material Exclusion (FME) controls put in place inside containment (e.g., around the refueling cavity, near sensitive equipment and RCS breaches) and around the SFP

Refueling Activities and Containment Closure

The inspectors witnessed selected fuel handling operations being performed according to TS and applicable operating procedures from the main control room, refueling cavity inside containment and the SFP. The inspectors also examined licensee activities to control and track the position of each fuel assembly. Furthermore, the inspectors evaluated the licensee's ability to close the containment equipment, personnel, and emergency hatches in a timely manner per procedure 2-MMP-68.02, Containment Closure.

Heatup, Mode Transition, and Reactor Startup Activities

The inspectors examined selected TS, license conditions, license commitments and verified administrative prerequisites were being met prior to mode changes. The inspectors also reviewed measured RCS leakage rates, and verified containment integrity was properly established. The inspectors performed a detailed containment sump closeout inspection prior to plant heat up operations. The inspectors also conducted a containment walkdown after the Unit 2 reactor plant had reached Mode 3 and was at normal operating pressure and temperature. The inspectors witnessed portions of the RCS heatup, reactor startup and power ascension in accordance with the following plant procedures:

- Pre-operational Test Procedure 2-3200088
- Unit 1 Initial Criticality Following Refueling
- POP 0-3200092, Reactor Engineering Power Ascension Program
- 2-GOP-201, Reactor Plant Startup-Mode 2 to Mode 1
- 2-GOP-302, Reactor Plant Startup-Mode 3 to Mode 2
- 2-GOP-303, Reactor Plant Heatup-Mode 3 <1750 to Mode 3 >1750
- 2-GOP-403, Reactor Plant Heatup-Mode 4 to Mode 3
- 2-GOP-504, Reactor Plant Heatup-Mode 5 to Mode 4

Corrective Action Program

The inspectors reviewed CRs generated during SL-16 to evaluate the licensee's threshold for initiating CRs. The inspectors reviewed CRs to verify priorities, mode holds, and significance levels were assigned as required. Resolution and implementation of corrective actions of several CRs were also reviewed for completeness. The inspectors also reviewed the results of Quality Assurance (QA) surveillances of outage activities.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors witnessed portions of the following six surveillance tests and monitored personnel conducting the tests as well as equipment performance, to verify that testing was being accomplished in accordance with applicable operating procedures. The test data was reviewed to verify it met TS, UFSAR, and/or licensee procedure requirements. The inspectors also verified that the testing effectively demonstrated the systems were operationally ready, capable of performing their intended safety functions, and that identified problems were entered into the licensee's CAP for resolution. The tests included two inservice tests (IST).

- OP 0-360050, Emergency Cooling Water Canal IST
- OP 2-2200050A, 2A EDG 24 Hour Endurance Test
- OP 2-0410025, Safety Injection Tank Dump Test
- OP 1-2200050A, 1B EDG Periodic Test
- OP 2-OSP-03.01B, 2B HPSI Pump Full Flow Test IST
- OP 2-OP-0400050, Engineered Safety Features Periodic Test

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors continued to periodically screen active TSAs for risk significant systems. The inspectors examined the TSA listed below, which included a review of the technical evaluation and its associated 10 CFR 50.59 screening. The TSA was compared to the system design basis documentation to ensure that: (1) the modification did not adversely affect operability or availability of other systems; (2) the installation was consistent with applicable modification documents; and, (3) did not affect TS or require

Enclosure

prior NRC approval. The inspectors also observed accessible equipment related to the TSA to verify configuration control was maintained.

- TSA 2-06-02, Unit 2 Demineralized Water

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness (EP)

1EP6 Drill Evaluation

a. Inspection Scope

On June 21, 2006, the inspectors observed a quarterly EP drill of the licensee's Emergency Response Organization (ERO) for personnel in the simulator and operations support center (OSC). During this drill the inspectors assessed licensee performance to determine if proper emergency classification, notification, and protective action recommendations were made in accordance with EP procedures. The inspectors evaluated the adequacy of the post drill critique conducted in the OSC.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors assessed the accuracy of the following PIs reported to the NRC. The inspectors reviewed the PI data of both Units 1 and 2 for the previous nine quarters (i.e., First Quarter 2004 through First Quarter 2006). Monthly Operating Reports, LERs, RCO Chronological Logs, and CRs were reviewed to verify the reported PI data was complete and accurate.

- Unit 1 RCS Activity
- Unit 2 RCS Activity
- Unit 1 RCS Leakage
- Unit 2 RCS Leakage

The inspections were conducted in accordance with NRC Inspection Procedure 71151, "Performance Indicator Verification." The applicable planning standard, Nuclear Energy

Enclosure

Institute (NEI) 99-02, Revision 4, "Regulatory Assessment Performance Indicator Guidelines," was used as reference criteria.

b. Findings

No findings of significance were identified.

4OA2 Problem Identification and Resolution of Problems

.1 Review of Items Entered into the Corrective Action Program

As required by Inspection Procedure 71152, Identification and Resolution of Problems, and in order to help identify repetitive equipment failures or specific human performance issues for followup, the inspectors performed screening of items entered into the licensee's CAP. This was accomplished by reviewing the CR summaries from daily printed reports and periodically attending CR oversight group meetings.

.2 Semi-Annual Review to Identify Trends

a. Inspection Scope

As required by inspection procedure 71152, Identification and Resolution of Problems, the inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors focused their review on condition reports associated with risk significant preventive maintenance type activities. The inspectors review was focused on repetitive equipment and corrective maintenance issues but also considered the results of daily inspector CAP item screening discussed in Section 4OA2.1. The review also included issues documented outside the normal CAP in system health reports, corrective maintenance work orders, system status reports, and maintenance rule assessments. The inspectors review nominally considered the six-month period of January thru June 2006, although some examples expanded beyond those dates when the scope of the trend warranted. Corrective actions associated with a sample of the issues identified in the licensee's trend report were reviewed for adequacy. The inspectors also evaluated the trend report specified in licensee procedure NAP-204, Condition Reporting. Specific documents reviewed are listed in the attachment.

b. Assessment and Observations

No findings of significance were identified. The inspectors reviewed several condition reports associated with preventive maintenance that was not performed on time as planned in the licensee's preventive maintenance program. The inspectors found a number a condition reports that identified PM activity periodicity and schedule dates that were changed without using the appropriate licensee PM change process as defined in licensee plant procedure 0010431, Preventive Maintenance Program. The licensee initiated condition reports to identify and correct the PM activity errors and initiated a

Enclosure

program deficiency condition report (CR 2006-975) for review and to take appropriate actions to correct the trend per their Administrative procedure NAP-204, Condition Reporting. The inspectors determined the licensee actions taken to be appropriate.

.3 Annual Sample: Preventive Maintenance (PM) Program Deficiencies

a. Inspection Scope

The inspectors selected condition report 2005-16614, "Preventive Maintenance Program Deficiencies Continue to Impact Program Implementation," for a detailed review and discussion with the licensee. The inspectors reviewed the condition report to ensure that the description of the condition was accurate and properly captured in their corrective action program; that the condition was properly classified and prioritized; and that the corrective actions were appropriate and timely consistent with the safety significance of the condition. The inspectors evaluated the condition report in accordance with the licensee's corrective action process as specified in NAP-204, "Condition Reporting."

b. Findings and Observations

No findings of significance were identified. The licensee's review of the condition was comprehensive and thorough with 36 action items assigned for addressing the condition. A number of causes for the condition were identified by the licensee including weak program controls, incomplete technical bases for preventive maintenance, and insufficient PM administration and implementation. Numerous corrective action items were assigned including but not limited to improving PM procedures, training site personnel, increasing PM staff size, and upgrading PM program computer software. At the close of this inspection period, the condition report remained open with a number of actions planned for completion in 2006 and 2007. The inspectors found that the due dates of some of these actions were not timely considering the breadth of the deficiency.

4OA3 Event Followup

.1 (Closed) Licensee Event Report (LER) 05000389/2005001, Degradation of ASME Class 1 and 2 Safety Injection Instrumentation Lines

On February 10, 2005 while in Mode 3 following refueling outage number 15, the licensee identified two locations of through wall leakage from a safety injection tank pressure instrument line connected to the 2B1 safety injection header. The leak rate was calculated to be approximately 0.4 gpm and was isolated by closing its manual root isolation valve. The first leak was identified to be from a socket weld and the second from a through-wall leak on the instrument line. The cause of these leaks were determined to be from fatigue failures induced by system vibration. The failures were repaired and a permanent modification made to the piping in the form of a tie-back support installed on the subject piping to reduce system operationally induced vibration

Enclosure

and to prevent recurrence. The LER was reviewed and no findings of significance were identified. No violation of NRC requirements occurred. This LER is closed.

.2 (Closed) LER 05000389/2006-002, Containment Purge Supply Isolation Valve Failure

On February 15, 2006, the St. Lucie Unit 2 inboard 8-inch containment purge supply isolation valve failed its local leak rate test (LLRT) required per Technical Specification (TS) 4.6.1.7.4. Failure of the leak test caused entry in TS Action 3.6.1.7 Action c, which required the penetration be restored to operable status within 24 hours, or be in hot shutdown within 6 hours. Due to obstacles involved in repairing the valve within the TS required 24 hours, the licensee requested and received a written approval of a Notice of Enforcement Discretion (NOED No.06-2-01) on February 22, 2006. Subsequently, the licensee's investigation determined that the apparent cause of the failure was inadequate corrective maintenance conducted during the SL2-15 outage overhaul of the valve. Corrective actions included replacement of the valve stem and body bushings and reinstallation of the valve; submittal of an exigent TS change, Amendment number 142; and, development of a repair procedure for the valve prior to the next scheduled valve overhaul. The inspectors reviewed the LER and determined that this finding is more than minor because it had a credible impact on safety, in that if the redundant valve in the penetration did not operate on a containment isolation signal, containment integrity would not be ensured. The finding affects the Barrier Integrity Cornerstone and was considered to have very low safety significance (Green) because the finding did not represent an actual open pathway in the physical integrity of the reactor containment and the redundant isolation valve remained operable during this event. This licensee-identified finding involved a violation of TS 3.6.1.3, Primary Containment Integrity. The enforcement aspects of the violation are discussed in Section 4OA7. This LER is closed.

4OA5 Other

.2 (Closed) URI 05000389/2006-02-04 Notice of Enforcement Discretion for Containment Ventilation System Purge Valve Failure

On February 15, 2006, the NRC verbally granted a Unit 2 NOED (No. 06-2-01) in accordance with IMC 9900, Technical Guidance, Operations - Notices of Enforcement Discretion. The NOED was related to compliance with the requirements of TS 3.6.1.7 Action c, which required the penetration be restored to operable status within 24 hours, or be in hot shutdown within 6 hours. The details of the failure and the request were documented in a letter dated February 17, 2006, from the licensee to the NRC, with written approval, granting the NOED provided in a letter dated February 22, 2006. This URI was identified to review the causes that may have led to the need for the NOED and to determine whether any enforcement actions were warranted per IMC 9900. The review of the licensee's root cause analysis documented in LER 05000389/2006-002 is discussed in Section 4OA3 and resulted in a licensee-identified discussed violation in Section 4OA7. This URI is closed.

4OA6 Meetings, Including Exit

Enclosure

On July 6, 2006, the resident inspectors presented the inspection results to Mr. Gordon Johnston and other members of his staff, who acknowledged the findings. The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

On May 5 and May 12, 2006, the Region II reactor inspectors performed interim exit meetings with Mr. Gordon Johnston and other members of his staff.

4OA7 Licensee-Identified Violations

The following violations of very low safety significance (Green) were identified by the licensee and are violations of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as an NCV.

- .1 Technical Specification 4.4.5.4.a.6, Plugging Limit, requires plugging any indication above 40% nominal tube wall thickness. Contrary to this, during steam generator tube eddy current testing (ECT) at SL2- 16, a bobbin indication was reported and confirmed by rotating probe testing as axial outer diameter stress corrosion cracking at the 1st hot leg tube support in Row 100 Column 96 in SG 2B. The indication measured 62% maximum depth with a length of 1.09". The historical data review for this indication showed that it was reported by bobbin testing during the SL2-15 inspection but was not inspected with rotating probe techniques because only part of the support thickness was examined. As a result, the indication remained in service during Cycle 15 operation. Based on a growth rate calculation performed after the indication was again identified during the SL2-16 outage, suggests that the indication had exceeded the plugging limit of 40% during the SL2-15 outage and was kept in service after the SL2-15 outage for an entire cycle. The finding has very low safety significance because, although degraded, the tube remained operable until taken out of service in the Cycle SL2-16 refueling outage.
- .2 10 CFR 50 Appendix B, Criterion V, requires, in part, that activities affecting quality shall be prescribed by documented instruction, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Contrary to the above, on February 15, 2006, the St. Lucie Unit 2 inboard 8-inch containment purge supply isolation valve failed its local leak rate test (LLRT) per Technical Specification (TS) 4.6.1.7.4 due to inadequate corrective maintenance during the SL2-15 outage overhaul of the valve. This finding is of very low safety significance because the likelihood of an accident leading to core damage was not affected, the probability of early primary containment failure and therefore a large early release was negligible, and the redundant isolation valve remained operable during this event.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

Supplemental Information

KEY POINTS OF CONTACT

Licensee Personnel

L. Neely, Work Control Manager
B. Jacques, Security Manager
C. Buehrig, Maintenance Rule Coordinator
D. Calabrese, Emergency Preparedness Supervisor
W. Parks, Operations Manager
E. Armando, Site Quality Manager
K. Frehafer, Licensing Engineer
R. Hughes, Site Engineering Manager
M. Danford, Performance Improvement Department Supervisor
C. Costanzo, Plant General Manager
G. Johnston, Site Vice President
R. McDaniel, Fire Protection Supervisor
D. Albright, Acting Operations Supervisor
T. Patterson, Licensing Manager
J. Porter, Operations Support Engineering Manager
G. Swider, Systems Engineering Manager
J. Tucker, Maintenance Manager
S. Wisla, Health Physics Manager
R. Walker, Emergency Preparedness Coordinator
D. Cecchetti, Licensing Engineer
M. Delowery, Projects Manager

NRC Personnel

B. Moroney, NRR Senior Project Manager
S. Ninh, Region II Senior Project Engineer

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

None

Closed

05000389, 2005001-00	LER	Degradation of ASME Class 1 and 2 Safety Injection Instrumentation Lines
----------------------	-----	--

Discussed

None

LIST OF DOCUMENTS REVIEWED

Procedures

AP-10526, Outage Risk Assessment and Control, Rev. 24
NDE 3.3, Liquid Penetrant Examination Solvent Removable Visible Dye Technique, Rev. 9
NDE 5.2, Ultrasonic Examination of Ferritic Piping Welds, Rev. 13
NDE 5.4, Ultrasonic Examination of Austenitic Piping Welds, Rev. 17
ADM-29-03, Boric Acid Corrosion Control Program, Rev. 5
ADM-17.08, Implementation of 10CFR50.65, The Maintenance Rule, Rev. 17
ADM-17.16, Implementation of the Configuration Risk Management Program, Rev. 8
PSL-ENG-SESJ-05-041, Condition Monitoring and Operational Assessment for the St. Lucie Unit 2 Steam Generators based on Eddy Current Examination End of Cycle 14, January 2005
PSL-ENG-SESJ-05-068, Degradation Assessment for St. Lucie Unit 2 Generators Update for End-of-Cycle 15
CSI-NDE-00-07, Steam Generator Secondary Side Integrity Plan, Rev. 5
CSI-NDE-05-057, Eddy Current Examination Implementation Plan for Steam Generator Tubing at St. Lucie Unit 2, Rev. 0
2-ISP-01.01, Reactor Coolant System ASME Leakage Test, Rev. 6
COP-05.04, Chemistry Department Surveillances and Parameters, Rev. 36A
PSL-ENG-SEMS-98-101, Engineering Evaluation for Unit 2 Steam Generator Secondary Side Foreign Objects, Rev. 4
Framatome ANP Nondestructive Examination Procedure 54-ISI-367-07, Visual Examination for Leakage of Reactor Head Penetrations, Rev. 7
Framatome ANP Nondestructive Examination Procedure 54-ISI-178-05, Ultrasonic Examination of Control Rod Drive Mechanisms (CRDM) Nozzle Tempered Weld Repair, Rev. 5
Framatome NDE 108.0, Task Lesson Plan Bare Head Inspection, Rev. 1
Framatome ANP Nondestructive Examination Procedure 54-ISI-100-14, Remote Ultrasonic Examination of Reactor Head Penetrations, Rev. 14
Framatome ANP Nondestructive Examination Procedure 54-ISI-137-06, Remote Ultrasonic Examination of Reactor Vessel Head Vent Line Penetrations, Revision 06
Framatome ANP Nondestructive Examination Procedure 54-ISI-460-02, Eddy Current Method, Rev. 2
Framatome Welding Procedure Specification 55-WP3/43/F43TBSCa3-01, Machine Temper Bead GTAW, including Procedure Qualification Records (PQRs) 7183 and 7164
Framatome Operating Instruction 55-010033-09, Ambient I.D.T.B. Welding of Upper Nozzle Remnant to Lower Replacement Nozzle Using the Local Cavity Weld Head in the Circumferential Mode, Rev. 9

Engineering Documents

Materials Reliability Program: Demonstrations of Vendor Equipment and Procedures for the Inspection of Control Rod Drive Mechanism Head Penetrations (MRP-89) (September 2003)
Document 6011693A Reactor Head Penetration Remote Visual Inspection Plan For St. Lucie Unit 2, Rev. 3

Records

Personnel Certification Records for Framatome Inspection Personnel, including:

- St. Lucie - LUCIE2 (EOC14) Bare Head Training Matrix dated 1/5-2/15/2005
- St. Lucie - LUCIE2 (EOC15) CRDM Nozzle Inspection W/SUMO-ROCKY RUT Training Matrix
- Individual Examiner Certification, Training, and Eye Test Records for 2 UT Level II, 3 UT Level III, 2 VT Level II, 1 PT Level II, and 1 ET LEVEL III Examiners

Framatome Equipment Certification Records for the following Inspection Equipment
FTOMOSCAN Pulser-Receivers VH-8167 and VH-8719

Framatome Welder Qualification Records for Welders A9023, C2569, S7361, and W9849

Framatome Machine Calibration Procedure 55-CP0003-02, Calibration of Local Cavity Weld Head (LCWH II) in Circumferential Mode

Framatome Gold Track V Calibration Procedure 55-CP0001-01

Framatome Calibration Record Document #: File Point 7A11-1205 (Junction Box, Weld Head, and Welding System)

Framatome Calibration Record Document #: File Point &A11-1194 (Gold Track V)

Certificate of Compliance and Certified Material Test Report for Welding Material - 0.035 ERNiCrFe-7, Heat NX4097JK (used for repair of RPV Head Nozzles)

Document 51-1264374-06, RSG In-Situ Pressure Tet Process Qualification Report

Document 6016219A, Field Procedure for In-Situ Pressure Testing RSG Tubes using the Triplex Pump, Rev. 6

Document 51-5020767-03, Qualified Eddy Current examination Techniques for St. Lucie (PSL) Unit 2
Document 03-5055254-001, Guideline for In-Situ Screening and Interfacing with APTECH Engineering at PTN and PSL

Document 03-9015575-000, Procedure for Development of Sleeving and Plugging Lists
Exclusive of PSL-2 Steam Generators

In-Situ Pressure Test Description Report, RSG-CE

Document 51-5022812-003, St. Lucie Unit 2 Data Analysis Guidelines

Letter FPL to NRC, Dated 2/17/2006, 30-Day Response to NRC Generic Letter 2006-01, Steam Generator Tube Integrity and Associated Technical Specifications.

APTECH Transmittal of Screening Charts for Condition Monitoring of St. Lucie Unit 2 Steam Generators for the 2006 Inspection, March 29, 2006.

Document 1274768A, Secondary Side Visual Inspection and Loose Parts Retrieval Procedure for Heat Exchangers, Rev. 2

ISPT Candidates for PSL-2 Steam Generator 2A (April 2006)

ISPT Candidates for PSL-2 Steam Generator 2B (April 2006)

Drawings and Work Control Documents

Drawing 5023774E, St. Lucie 2 CEDM Nozzle ID Temper Bead Weld Repair
Process Traveler 50-5045613-00, Ambient IDTB Repair of CEDM Nozzles

Corrective Action Documents

Self assessment 2003 Boric Acid Program Effectiveness

Self-Assessment 2005-29906, BOP Heat Exchanger, FAC & ISI

CR 2006-12343, Chemical and Volume Control System valve SR02123 leaking

CR 2006-6781, Flow element for Hot Leg Injection Header "A" FE-3317 has dry boric acid

CR 2006-6827, Flow element FE-3306 for Shutdown Cooling leaking and corrosion present

CR 2005-1122, Tracking actions and NRC review of proposed license amendment - Define the Depth of the Required Tube Inspections and Clarify the Plugging Criteria within the Tubesheet Region of the Original Steam Generators

CR 2005-1370, Axial indications were identified that were not reported by bobbin probe

CR 2005-2135, Eddy current testing of the Unit 2A SG during SL2-15 has identified 798 tubes that require plugging.

CR 2005-2139, Eddy current testing of the Unit 2B SG during SL2-15 has identified 837 tubes that require plugging.

CR 2005-2219, U2 SG A&B sludge lance amount of sludge removed

CR 2005-2654, SG plugging/stabilization AREVA Condition Report 2005-332

CR 2005-3739, PSL2 SG foreign object inspections

CR 2006-13173, SG degradation assessment update

CR 2006-14113, Unit 2 SG B in-situ pressure test list

CR 2006-14117, SG 2A tube plugging list, Rev. 0

CR 2006-14215, SG 2B tube plugging list, Rev. 0

CR 2006-13913, Missed eddy current indication from SL2-15 inspection

AREVA CR 2006-2019, SI of eddy-current (S/G "B" - Cold Leg R:100 L:96) from 2005 incomplete

Condition Reports

CR 2006-19436

CR 2006-16686

CR 2006-975

CR 2006-1099

CR 2006-1114

CR 2006-3439

CR 2006-9025

CR 2006-12095

CR 2006-13601

CR 2006-18279

CR 2005-4621

CR 2006-18855

CR 2006-18850

CR 2006-12280

CR 2006-13457

LIST OF ACRONYMS USED

AFW	Auxiliary Feedwater System
ASME	American Society of Mechanical Engineers
BACC	Boric Acid Corrosion Control Program
CAP	Corrective Action Program
CCW	Component Cooling Water
CRs	Condition Reports
CS	Containment Spray
ECCS	Emergency Core Cooling System
ECT	Eddy Current Testing
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
ERO	Emergency Response Organization
FME	Foreign Material Exclusion
HPSI	High Pressure Safety Injection
ICW	Intake Cooling Water System
IST	Inservice Test
LER	Licensee Event Report
LPSI	Low Pressure Safety Injection
NCVs	Non-cited Violations
NEI	Nuclear Energy Institute
NDE	Nondestructive Examination
OCC	Outage Control Center
OLRM	Online Risk Monitor
OOS	Out of Service
OSC	Operation Support Center
OWA	Operator Workaround
PARs	Publicly Available Records
PI	Performance Indicator
P&ID	Piping and Instrument Drawings
PM	Preventative Maintenance
PMT	Post Maintenance Test
PT	Liquid Dye Penetrant
QA	Quality Assurance
RAT	Risk Assessment Team
RCO	Reactor Control Operator
RCS	Reactor Cooling System
RPVH	Reactor Pressure Vessel Head
RTP	Rated Thermal Power
SFP	Spent Fuel Pool
SG	Steam Generator
SSCs	Systems, Structures, and Components
TS	Technical Specification
TSA	Temporary System Alterations
UFSAF	Updated Final Safety Analysis Report
UT	Ultrasonic Testing
VT	Visual Testing
WO	Work Order