UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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ATLANTA, GEORGIA 30303-1257

November 16, 2012

Mr. Mano Nazar
Executive Vice President and Chief Nuclear Officer
Florida Power and Light Company
P.O. Box 14000
Juno Beach, FL 33408-0420

SUBJECT: ST. LUCIE NUCLEAR PLANT UNIT 1 - NRC INSPECTION PROCEDURE 95002 SUPPLEMENTAL INSPECTION REPORT 05000335/2012009 AND ASSESSMENT FOLLOW-UP LETTER FOR ST. LUCIE NUCLEAR PLANT UNIT 1

Dear Mr. Nazar:

On October 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) staff completed a supplemental inspection pursuant to Inspection Procedure 95002, Inspection for One Degraded Cornerstone or any Three White Inputs in a Strategic Performance Area, at your St. Lucie Nuclear Plant, Unit 1. The enclosed inspection report documents the inspection results which were discussed at the exit meeting on October 12, 2012, with Mr. Jensen and other members of your staff.

As required by the NRC Reactor Oversight Process, this supplemental inspection was performed because the Unplanned Scrams per 7000 Critical Hours and the Unplanned Scrams with Complications performance indicators crossed from Green to White in the first quarter of 2012. The White performance indicators were the result of four unplanned reactor scrams over the previous four quarters. The NRC staff was informed on August 30, 2012, of your staff's readiness for this inspection.

The objectives of this supplemental inspection were to provide assurance that: (1) the root causes and the contributing causes for the risk-significant issues were understood, (2) the extent of condition and extent of cause of the issues were identified, and (3) corrective actions were or will be sufficient to address and preclude recurrence of the root and contributing causes. This inspection also included an independent NRC review of the extent of condition and extent of cause for the unplanned reactor trips and an assessment of whether any safety culture component caused or significantly contributed to the issues.

The NRC's review of St. Lucie Unit 1 performance indicators identified that the Unplanned Scrams per 7000 Critical Hours performance indicator remained White in the third quarter of 2012. The inspection team determined that the inspection objectives stated above have been met. As a result, the NRC determined the performance of St. Lucie Unit 1 to be in the Regulatory Response Column of the Reactor Oversight Process Action Matrix as of the date of this letter.

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The team determined that the individual root cause evaluations for each of the unplanned reactor trips were thorough and broad in scope. The evaluations appropriately determined the root and contributing causes, addressed the extent of condition and extent of cause, and determined if safety culture contributed to the issue. The team concluded that the licensee's corrective actions were sufficient to address the root and contributing causes and to prevent recurrence.

One self-revealing finding of very low safety significance (Green) was identified during this inspection. If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region II; and the NRC Resident Inspector at the St. Lucie Nuclear Plant.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) 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, Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Website at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Daniel W. Rich, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Docket No.: 50-335
License No.: DPR-67

Enclosure: Inspection Report 05000335/2012009
w/ Attachment: Supplemental Information

cc w/encl:
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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 50-335

License No.: DPR-67

Report No: 05000335/2012009

Licensee: Florida Power & Light Company (FP&L)

Facility: St. Lucie Nuclear Plant, Unit 1

Location: Jensen Beach, FL 34957

Dates: October 8 – October 12, 2012

Inspectors: C. Rapp, Senior Project Engineer, Reactor Projects Branch 1 (Lead)
R. Cureton, Resident Inspector, Catawba Nuclear Station
A. Allen, Special Assistant, Enforcement and Investigation Coordination Staff

Approved by: D. Rich, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

Inspection Report (IR) 05000335/2012009; 10/8/2012 – 10/12/2012; St. Lucie Nuclear Plant, Unit 1; Supplemental Inspection - Inspection Procedure (IP) 95002

This supplemental inspection was conducted by a senior project engineer, a resident inspector, and a special assistant. One Green self-revealing finding was identified. Cross-cutting aspects are determined using Inspection Manual Chapter 0310, "Components Within The Cross-Cutting Areas," dated October 28, 2011. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4.

Cornerstone: Initiating Events

IP 95002

The NRC staff performed this supplemental inspection in accordance with IP 95002, Inspection for One Degraded Cornerstone or any Three White Inputs in a Strategic Performance Area, to assess the licensee's evaluation of four unplanned reactor trips that caused the Unplanned Scrams per 7000 Critical Hours and Unplanned Scrams with Complications performance indicators (PIs) to cross from Green to White. The team determined that the individual root cause evaluations (RCEs) for the unplanned reactor trips were thorough. The evaluations appropriately determined the root and contributing causes, addressed the extent of condition and extent of cause, determined if safety culture contributed to the performance issues, and established and scheduled corrective actions that were sufficient to address the causes and prevent recurrence. The team also performed an independent extent of condition and extent of cause review and a focused safety culture review. The team concluded that the licensee's extent of condition and extent of cause evaluations were broad in scope and that the licensee appropriately considered safety culture. The team did not identify any concerns associated with safety conscious work environment. The team also reviewed the licensee's common cause analysis. The licensee determined the primary theme for the four unplanned reactor trips was failure to integrate risk assessment into daily work performance resulting in risk underestimation of work being performed. The team found the common cause analysis was detailed and appropriately assessed the root and contributing causes of the four unplanned reactor trips.

Findings

- Green. A self-revealing finding with two examples was identified for the licensee's failure to adequately implement their design change process for post-modification testing (PMT). In the first example, the PMT procedure was not adequate for post-modification testing of the steam bypass control system (SBCS). In the second example, a PMT was not performed for the new turbine control system (TCS).

  The licensee's failure to implement the requirements of design change procedure EN-AA-205-1100 in both examples was a performance deficiency. Both examples were more than minor because they were associated with the Initiating Events cornerstone attribute of design control and adversely affected the cornerstone objective in that both resulted in unplanned reactor trips. This finding was assessed using Inspection Manual Chapter 0609, Appendix A, "Significance Determination Process for Findings At-Power," Exhibit 1, "Initiating Events Screening

Questions," and determined to be of very low safety significance (Green). The cause of the SBCS event was related to the cross-cutting aspect of the need to ensure work activities are planned by incorporating risk insights as described in the Work Control component of the Human Performance cross-cutting area [H.3(a)]. The cause of the TCS event was related to the cross-cutting aspect of the need to ensure supervisory and management oversight as described in the Work Practices component of the Human Performance cross-cutting area because station oversight allowed the new TCS to be put in service without the prescribed PMT being performed [H.4(c)]. (Section 4OA4.2.01 d)

REPORT DETAILS

4. OTHER ACTIVITIES

4OA3 Follow-up of Events and Notices of Enforcement Discretion

.1 (Closed) Licensee Event Report (LER) 05000335/2012-003-00, 01, Manual Trip during Steam Bypass Control System Post-Modification Testing

On March 31, 2012, while St. Lucie Unit 1 was at 10% reactor power and the licensee was performing preoperational testing of the SBCS, the reactor was manually tripped when a steam bypass control valve unexpectedly opened. Immediately following the reactor trip, the steam bypass control valve closed. Additionally, operators closed the main steam isolation valves in accordance with Emergency Operating Procedure (EOP-01), "Standard Post Trip Actions" due to steam generator pressure decreasing to less than 750 psia. During post trip recovery, EOP-05, "Excess Steam Demand" was entered as a result of not meeting Reactor Coolant System (RCS) average temperature between 525 and 535 degrees. EOP-05 was exited with no actions taken when temperature increased into the required band. The licensee documented this issue in the corrective action program as action request (AR) 1755493-01. The enforcement aspects associated with this LER are dispositioned in Section 4OA4.2.01 d.

.2 (Closed) LER 05000335/2012-007-00, Unit 1 Reactor Trip on Turbine Trip

On June 2, 2012, Unit 1 automatically tripped from normal full power operation due to a turbine trip and loss of load following a failure of the TCS. There were no complications with the reactor trip. The reactor trip on turbine trip was caused by loss of communications in the recently installed Ovation TCS due to a failed fiber optic connection. The licensee documented this issue in the corrective action program as AR 01772644. The enforcement aspects associated with this LER are dispositioned in Section 4OA4.2.01 d.

4OA4 Supplemental Inspection (95002)

.1 Inspection Scope

This supplemental inspection was conducted using Inspection Procedure (IP) 95002 to assess the licensee's RCE associated with the four unplanned reactor trips described below that resulted in a degraded Initiating Events cornerstone in the reactor safety strategic performance area for Unit 1.

- 3rd Quarter 2011: Manual reactor trip from 100 percent power due to a large influx of jelly fish into the intake canal affecting the circulating water and intake cooling water systems. During the trip recovery, all main feedwater was lost. This was considered a complicated reactor trip. (AR 1679935)
- 4th Quarter 2011: Manual reactor trip from 100 percent power due to loss of circulating water pumps resulting in decreasing condenser vacuum. (AR 01697977)

- 1st Quarter 2012: Manual reactor trip from approximately 10 percent power due to a steam bypass control system malfunction. During the trip response, operators entered EOP-5, Excess Steam Demand, due to the steam bypass valve failing open and the lack of decay heat. This was considered a complicated reactor trip. (AR 1755493-01)
- 2nd Quarter 2012: Automatic reactor trip due to turbine electro hydraulic control (EHC) system software failure causing a turbine trip. (AR 01772644)

The degraded cornerstone was caused by the Unplanned Scrams per 7000 Critical Hours and Unplanned Scrams With Complications performance indicators (PIs) crossing the White threshold in the 1st quarter 2012. The inspection objectives were to:

- provide assurance that the root and contributing causes of risk-significant issues were understood
- provide assurance that the extent of condition and extent of cause of risk-significant issues were identified and to independently assess the extent of condition and extent of cause of individual and collective risk-significant issues
- independently determine if safety culture components caused or significantly contributed to the risk significant issues
- provide assurance that the licensee's corrective actions for risk-significant issues were or will be sufficient to address the root and contributing causes and to preclude recurrence.

The licensee performed a RCE for each of the four reactor trips that contributed to the PIs crossing the White threshold to identify organizational and programmatic weaknesses which contributed to the unplanned reactor trips. The team reviewed the licensee's RCEs in addition to other evaluations conducted in support and as a result of the RCEs. The team reviewed corrective actions that were taken or planned to address the identified root and contributing causes. The team held discussions with licensee personnel to ensure that the root and contributing causes and the contribution of safety culture components were understood and corrective actions taken or planned were appropriate to address the causes and preclude recurrence. The team independently assessed the extent of condition and extent of cause for each the events. The team performed an assessment to independently determine whether any safety culture components caused or significantly contributed to the issues. The licensee performed a common cause analysis (AR 1792142) to identify common causes for all four unplanned reactor trips, and the team reviewed the analysis to verify the licensee had assessed all the root and contributing causes identified in the RCEs. Documents reviewed which are not identified in the following report sections are listed in the Attachment.

.2 Evaluation of the Inspection Requirements

2.01 Problem Identification

a. Determine that the licensee's evaluation of the issue documents who identified the issue (i.e., licensee-identified, self-revealing, or NRC-identified) and the conditions under which the issue was identified.

The team verified the licensee's RCEs documented the four unplanned reactor trips as self-revealing. Two manual reactor trips were based on condenser vacuum decreasing to the operating limit in licensee procedures, one manual reactor trip was based on reactor coolant system temperature decreasing to at or below the minimum temperature for criticality, and one automatic trip occurred when the turbine control valves closed during testing. The team verified that this information was documented in the licensee's RCE.

b. Determine that the licensee's evaluation of the issue documents how long the issue existed and prior opportunities for identification

Each of the four RCEs stated how long the conditions existed. For each of the reactor trips, the licensee identified that there were prior opportunities to identify conditions which caused or contributed to the events. This included design control, procedure quality, post-modification testing, ineffective or untimely corrective actions, and use of prior operating experience. The team determined that the licensee's evaluation was adequate with respect to identifying how long the issue existed and prior opportunities for identification.

c. Determine that the licensee's evaluation documents the plant specific risk consequences, as applicable, and compliance concerns associated with the issues both individually and collectively

Each RCE properly addressed plant specific risk consequences. The common cause evaluation reviewed the collective risk consequences. The team noted that two of the reactor trips were previously dispositioned in NRC inspection reports 05000335, 389/2012002 and 05000335, 389/2012007. The compliance aspects of the remaining two trips are dispositioned in this report. The team determined that the licensee's evaluation of the risk consequences and compliance concerns associated with the unplanned reactor trips was adequate.

d. Findings

Introduction: A Green self-revealing finding with two examples was identified for the licensee's failure to adequately implement their design change process for post-modification testing (PMT). In the first example, the SBCS PMT procedure was not adequate in that it did not provide adequate guidance for abnormal system responses. In the second example, a PMT was not performed for the new TCS. These modifications were not safety-related, but did increase the risk of an unplanned reactor trip.

Description: There were two examples of failure to develop adequate PMT procedures as required by EN-AA-205-1100, "Design Change Packages." This resulted in two unplanned reactor trips that contributed to the White PIs.

- During preoperational testing of the SBCS that had been modified to accommodate the Extended Power Uprate (EPU) project, valve 1-PCV-8802, Steam Dump from Main Steam Header to 1B Condenser, experienced unstable conditions over a period of two minutes, and then spuriously opened to greater than 93%. Attempts to close the valve from the control room were unsuccessful. The opening of 1-PCV-8802 caused excessive steam demand and the Unit 1 reactor was manually tripped when average primary temperature decreased below the Technical Specification criticality limit. The licensee failed to apply a rigorous procedure preparation process in the development of Preoperational Test Procedure (PTP), 1-PTP-77 "Steam Bypass Control System Valve Capacity Checks."

- During on-line testing of the new TCS, a turbine trip occurred. The new TCS was comprised of five different cabinets, two of which contain redundant controllers. On June 2, 2012, a controller failed and transferred primary control to the redundant controller. Approximately five hours later, the redundant controller also failed causing a turbine trip and subsequent reactor trip. One of the causes of the failures identified by the licensee was that a final comprehensive PMT was not performed. In lieu of the PMT, a system acceptance test was performed which did not include testing which specifically would have identified the cause of the controller failures.

Analysis: The licensee's failure to implement the requirements of EN-AA-205-1100 in both instances was a performance deficiency. Both events were more than minor because they were associated with the Initiating Events cornerstone attribute of design control and adversely affected the cornerstone objective in that either the PMT did not contain contingency actions to mitigate abnormal test responses or a PMT was not performed resulting in unplanned reactor trips. The finding was determined to be of very low safety significance (Green) based on Exhibit 1, "Initiating Events Screening Questions" found in Inspection Manual Chapter 0609, Appendix A, "Significance Determination Process for Findings At-Power." This was due to the fact that the finding did not cause a loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition in either event. The cause of the SBCS event was related to the cross-cutting aspect of the need to ensure work activities are planned by incorporating risk insights as described in the Work Control component of the Human Performance cross-cutting area [H.3(a)]. The cause of the TCS event was related to the cross-cutting aspect of the need ensure supervisory and management oversight as described in the Work Practices component of the Human Performance cross-cutting area because station oversight allowed the new TCS to be put in service without the prescribed PMT being performed [H.4(c)].

Enforcement: Enforcement action does not apply because the finding did not involve a violation of regulatory requirements. This finding has been entered into the licensee's corrective action program as ARs 01772644 and 1755493 and is identified as FIN 05000335/2012009-01, Failure to Adequately Implement Design Changes Procedure.

2.02 Root Cause, Extent of Condition, and Extent of Cause Evaluation

a. Determine that the licensee evaluated the issue using a systematic methodology to identify the root and contributing causes

The licensee used several systematic methods to complete the RCEs including the following evaluation techniques:

- event and causal factor charting
- hazard-barrier-target analysis
- management oversight and risk tree (MORT) analysis
- fault tree analysis
- support/refute matrix

The team determined that the licensee evaluated the reactor trips using systematic methods to identify root and contributing causes.

b. Determine that the licensee's RCE was conducted to a level of detail commensurate with the significance of the issue

The team concluded that the level of detail in the licensee's RCEs was appropriate for the safety significance of the issue. For each of the RCEs, the licensee used several of the evaluation methods described in Section 2.02 a. The team noted that the licensee had an external root cause specialist review the completed RCEs. The team noted that the changes to the RCEs were insignificant and did not affect the identified causes or corrective actions. One benefit of this external review was an improved evaluation of safety culture components that contributed to each unplanned reactor trip.

c. Determine that the licensee's RCE included a consideration of prior occurrences of the issue and knowledge of Operating Experience (OE)

The RCEs included a review of applicable events on internal and external OE of similar reactor trips. The licensee also reviewed previous RCEs performed for similar causes to assess if these RCEs provided insights to prior occurrences and use of OE. The OE reviews were sufficiently broad to capture relevant OE and were used in the development of corrective actions.

d. Determine that the licensee's RCE addresses the extent of condition and extent of cause of the issues

The team concluded that the licensee's RCEs addressed the extent of condition and the extent of cause of the four reactor trips. Each RCE included proper consideration of the extent of condition and extent of cause. This included whether other units, systems, equipment, programs or conditions could be affected. The team found that the common cause analysis performed by the licensee was essentially an extent of condition and extent of cause evaluation for all four unplanned reactor trips which assessed conditions and causes across all four RCEs. The common cause analysis provided verification that

extent of condition and extent of cause was addressed in the four RCEs. The extent of cause evaluations focused on both the root causes and the contributing causes. The extent of condition evaluations were sufficiently broad to assess whether the condition could affect other processes, equipment, or human performance.

e. Findings

No findings were identified.

2.03 Corrective Actions

a. Determine that (1) the licensee specified appropriate corrective actions for each root and contributing cause, or (2) an evaluation that states why no actions are necessary

The team did not identify any significant concerns with the licensee's corrective actions. The licensee identified corrective actions, including corrective actions to prevent recurrence (CAPRs) that were appropriate for the root and contributing causes for each unplanned reactor trip. The licensee identified risk informed decision making as a common cause for all four unplanned reactor trips and implemented corrective actions to integrate risk considerations into the programs and procedures.

b. Determine that the licensee prioritized corrective actions with consideration of risk significance and regulatory compliance

The team reviewed the licensee's schedule for completion of corrective actions for each identified root and contributing cause and determined that the licensee appropriately prioritized corrective actions with consideration of risk significance and regulatory compliance.

c. Determine that the licensee established a schedule for implementing and completing the corrective actions

The team did not identify any significant concerns with the licensee's schedule for implementing and completing corrective actions. Each RCE established assignments and schedules for implementing corrective actions. Corrective actions were in the licensee's CAP to ensure that they are tracked and completed commensurate with their significance and priority.

d. Determine that the licensee developed quantitative or qualitative measures of success for determining the effectiveness of the corrective actions to preclude recurrence (CAPR)

The licensee established measures to validate the effectiveness of the CAPRs for each of the four RCEs using quantitative or qualitative measures. Each RCE had a detailed review plan that specified the methodology, the acceptance criteria, and the completion date for each root cause to assess effectiveness. The team determined that the licensee had established measures of success for determining the effectiveness of each CAPR.

e. Determine that the licensee's planned or completed corrective actions adequately address a Notice of Violation (NOV) that was the basis for the supplemental inspection, if applicable

The NRC staff did not issue an NOV to the licensee; therefore, this inspection attribute was not applicable.

f. Findings

No findings were identified.

2.04 Independent Assessment of Extent of Condition and Extent of Cause

a. Inspection Scope

IP 95002 requires that the inspection staff perform a focused inspection to independently assess the validity of the licensee's conclusions regarding the extent of condition and extent of cause of the issue. The objective of this requirement is to independently sample performance, as necessary, within the key attributes of the cornerstone that is related to the subject issue to ensure that the licensee's evaluation regarding the extent of condition and extent of cause is sufficiently comprehensive.

The team conducted independent extent of condition and extent of cause reviews for the four reactor trips which led to the two White PIs. The review focused on the primary root causes of the four reactor trips in addition to the licensee's identified causes for each trip. The team assessed if the licensee's extent of condition and extent of cause evaluations sufficiently identified and bounded all engineering and maintenance organizational issues. The team also assessed if the licensee's extent of condition and extent of cause evaluations sufficiently determined the actual extent of similar organizational issues that potentially existed in other station departments, programs, and processes. In conducting this independent review, the team interviewed station management and personnel, reviewed program and process documentation, and reviewed existing station program monitoring and improvement efforts, including review of corrective action documents. Based on the root and contributing causes identified by the licensee, the team focused the review on the following attributes of the programs and processes:

- program and process expectations that clearly delineated station management and personnel roles and responsibilities
- program and process performance monitoring efforts, which included performance gap analyses
- program and process improvement efforts, which included effective use of the OE and existing station improvement plans
- improvements in change-management implementation for programs and processes, including organizational and staffing restructuring

b. Assessment

The team determined that the licensee conducted a comprehensive extent of condition and extent of cause review for each RCE that sufficiently evaluated the most relevant areas. The team did not identify any substantive extent of condition and extent of cause issues which the licensee had not already identified and developed corrective action plans for.

Risk-informed decision making was identified as a cause in three of the unplanned reactor trips. This cause was also identified in the safety culture assessment for a previous component cooling water air intrusion event (NRC Inspection Report 05000335/2010009). Although the circumstances resulting in the air intrusion event were significantly different, the team agreed with the licensee's conclusion that this safety culture area had not been effectively corrected. As discussed in Section 02.05, the licensee has implemented an aggressive program to address this safety culture area.

c. Findings

No findings were identified.

2.05 Safety Culture Consideration

a. Inspection Scope

The team performed a focused inspection to independently determine that the RCEs appropriately considered if any safety culture components caused or significantly contributed to the individual risk-significant performance issues. The team assessed the relationship between safety culture aspects and the performance issues through the use of personnel interviews and reviews of applicable procedures, root cause evaluations, and associated corrective actions. The team conducted several interviews with staff, first line supervisors, and management from various areas of the licensee's organization to verify that the safety culture contribution to the four unplanned reactor trips was understood.

b. Assessment

As part of the RCEs and the common cause analysis, the licensee also evaluated the root and contributing causes against the safety culture components that could have contributed to these events. The licensee's RCEs and common cause evaluation included discussions of the 13 safety culture components described in Regulatory Issue Summary 2006-013, "Information on the Changes Made to the Reactor Oversight Process to More Fully Address Safety Culture." Based on their analyses, the licensee concluded that 8 of the 13 safety culture components contributed to the issues. The interviews and observations performed by the team were designed to gather information related to the safety culture of the licensee by targeting the following safety culture components:

- Risk Significant/Conservative Assumptions in Decision Making
- Maintaining Long Term Plant Safety
- Complete and Up to Date Design Documentation
- Appropriate Planning of Work Activities
- Appropriate Corrective Action to Address Safety Issues and Trends
- Institutionalizing Operating Experience
- Systematic Process for Planning, Coordinating and Evaluating Safety and Impacts related to Major Changes at the Plant

Based on interviews, observation of meetings, and review of the documentation, the team determined:

- The licensee's efforts to enhance risk significant/conservative assumptions into decision making have been effective. Policies and procedures were revised and training was continuing to reinforce risk awareness throughout the facility.

- Emphasis was placed on the potential impact of the failure of non-safety or secondary-side equipment repair and modification, particularly as it relates to the design and design control process. The team noted that awareness of the potential impacts of failures was routinely emphasized through training sessions and various site-wide communications.

- The licensee continued to ensure that issues identified through the CAP were evaluated and prioritized such that non-safety and secondary equipment were evaluated with the appropriate consideration to the potential long-term consequences of postponing preventive maintenance or repairs. Individuals interviewed indicated that the manner in which the licensee was addressing CAP issues was consistent with this heightened sensitivity to the long-term potential consequences of long standing equipment problems.

- The licensee was incorporating risk perspective in their revision of processes and procedures to ensure that there was a means to factor risk into non-safety and secondary equipment maintenance and repair work. Several individuals interviewed reported that enhancements in human performance practices had been incorporated into their work routines within the past year.

- With respect to Operating Experience (OE), individuals interviewed consistently acknowledged that during the period prior to the four scrams, there had been insufficient emphasis on external and internal operating experience. The inspectors' review of documents, observations at meetings, and interviews with licensee staff, indicated that changes in procedures, review and revisions of existing procedures, training, and continuing emphasis by licensee management appear to be effectively addressing the insufficient emphasis on OE.

The inspection team independently confirmed that the licensee's RCEs and common cause analysis appropriately considered safety culture components that contributed to the events. For each of the identified contributing safety culture components, the team confirmed that the licensee established appropriate corrective actions.

c. Findings

No findings were identified.

2.06 Evaluation of IMC 0305 Criteria for Treatment of Old Design Issues

The licensee did not request credit for self-identification of an old design issue.

4OA6 Exit Meeting

On October 12, 2012, the team presented the inspection results to Mr. J. Jenson, Site Vice President, and other members of his staff, who acknowledged the findings. The team confirmed that proprietary information was not retained after the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel:
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C. Bible, Engineering Director
E. Belizar, Projects Manager
D. Calabreses, Emergency Preparedness Manager
D. DeBoer, Operations Director
R. Fillpeic, Engineering Design Manager
J. Giampietro, Extended Power Uprate Engineering Manager
M. Greer, Human Resources Manager
T. Horton, Operations Assistant Manager
B. Hughes, Plant General Manager
J. Jenson, Site Vice President
E. Katzman, Licensing Manager
C. Martin, Radiation Protection Manager
J. Ownes, PID Manager
S. Redman, Communications Specialist
M. Snyder, Quality Assurance Manager
N. Sorensen, Business Operations Manager
R. Webber, Unit Supervisor (95002 Lead)
T. Young, Security Manager

NRC Personnel:
D. Rich, Chief, Branch 3, Division of Reactor Projects
T. Hoeg, Senior Resident Inspector, St. Lucie Nuclear Plant
R. Reyes, Resident Inspector, St. Lucie Nuclear Plant

LIST OF REPORT ITEMS

Opened and Closed		
05000335/2012009-01	FIN	Failure to Adequately Implement Design Changes Procedure (Section 4OA4.2.01 d)
Closed		
05000335/2012-003-00 and 2012-003-01	LER	Manual Trip During Steam Bypass Control System Post Modification Testing (Section 4OA3.1)
05000335/2012-007-00	LER	Unit 1 Reactor Trip on Turbine Trip (Section 4OA3.2)

LIST OF DOCUMENTS REVIEWED

PI-SL-205, Condition Evaluation and Corrective Action, Rev.8
PI-SL-204, Condition Identification and Screening Process, Rev.8
1-PMI-22.35, DEH Assessment Procedure, Rev. 0
1-PMI-22.36, DEH Maintenance Procedure, Rev. 0
WM-AA-1000, Work Activity Risk Management, Rev. 12
EN-AA-205-1100, Design Change Packages, Rev. 4
NAP-412, Operational Decision Making, Rev. 13
Circulating Water System Health Report 2Q 2012
NUC PIP CAP 008, Action Closure Training
AR 00566679, Loss of 1A2 Circulating Water Pump Requires Unit 1 Downpower