



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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

APRIL 17, 2000

Florida Power and Light Company  
ATTN: Mr. T. F. Plunkett  
President - Nuclear Division  
P. O. Box 14000  
Juno Beach, FL 33408-0420

SUBJECT: NRC INSPECTION REPORT NOS. 50-335/2000-04 AND 50-389/2000-04

Dear Mr. Plunkett:

This refers to the Engineering inspection conducted on February 7-11, 2000 and February 28 - March 3, 2000, at the St. Lucie facility. The primary objective of this inspection was to assess the adequacy of engineering activities, particularly the effectiveness of the engineering organization to perform routine and emergent site activities, including the identification and resolution of technical issues and problems.

The inspection found that, overall, the licensee's engineering organization has been effective in performing routine and emergent site activities.

Based on the results of this inspection, the NRC has determined that two violations of NRC requirements occurred. These violations are being treated as Non-Cited Violations, consistent with Section VII.B.1 of the Enforcement Policy. These Non-Cited Violations are described in the subject inspection report. If you contest these violations or the severity of the Non-Cited Violations, 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, D.C. 20555-0001, with copies to the Regional Administrator, Region II, the Resident Inspector at your facility, and the Director, Office of Enforcement, USNRC, Washington, D.C. 20555-0001.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please contact us.

Sincerely,

/RA/

Edward H. Girard, Acting Chief  
Engineering Branch  
Division of Reactor Safety

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

Enclosure: (See page 2)

Enclosure: NRC Inspection Report

cc w/encl:  
Rajiv S. Kundalkar  
Plant Vice President  
Florida Power & Light Company  
Electronic Mail Distribution

R. G. West  
Plant General Manager  
St. Lucie Nuclear Plant  
Electronic Mail Distribution

E. J. Weinkam  
Licensing Manager  
St. Lucie Nuclear Plant  
Electronic Mail Distribution

John Gianfrancesco, Manager  
Administrative Support & Special Projects  
Florida Power & Light Company  
Electronic Mail Distribution

Mark Dryden  
Administrative Support & Special Projects  
Florida Power & Light Company  
Electronic Mail Distribution

J. A. Stall  
Vice President - Nuclear Engineering  
Florida Power & Light Company  
P. O. Box 14000  
Juno Beach, FL 33408-0420

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

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

(cc w/encl cont'd - See page 3)

(cc w/encl cont'd)  
 Joe Myers, 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:  
 W. Gleaves, NRR  
 PUBLIC

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| E-MAIL COPY? | YES NO         | YES NO       | YES NO         | YES NO          | YES NO               | YES NO    | YES NO     |

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-335, 50-389

License Nos: DPR-67, NPF-16

Report Nos: 50-335/2000-04, 50-389/2000-04

Licensee: Florida Power & Light Co.

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

Location: 6351 South Ocean Drive  
Jensen Beach, FL 34957

Dates: February 7-11, 2000 and February 28 - March 3, 2000

Inspectors: P. Fillion, Reactor Inspector  
E. Girard, Senior Reactor Inspector  
N. Merriweather, Senior Reactor Inspector (In-office Review)  
M. Scott, Senior Reactor Inspector  
M. Thomas, Senior Reactor Inspector (Lead Inspector)

Accompanying Personnel: S. Vias, Senior Reactor Inspector

Approved by: E. Girard, Acting Chief  
Engineering Branch  
Division of Reactor Safety

## EXECUTIVE SUMMARY

### St. Lucie Nuclear Plant, Units 1 & 2 NRC Inspection Report 50-335/2000-04, 50-389/2000-04

This inspection reviewed selected engineering activities, which included, but was not limited to, permanent plant changes/modifications (PC/M) and related 10 CFR 50.59 safety evaluations, calculations, and analyses; temporary modifications; identification and resolution of plant problems; support to operations and maintenance; self assessments; engineering backlog; and licensee actions on previously identified items. The report covered a two-week period of inspection.

Overall, the inspection found that the licensee's engineering organization has been effective in performing routine and emergent site activities. Two non-cited violations (NCVs) were identified.

#### Engineering

- The design changes were technically adequate and were consistent with the plant licensing and design bases, regulatory requirements, and licensee procedures. (Section E1.1)
- The 10 CFR 50.59 evaluations reviewed were consistent with regulatory requirements and plant procedures. The conclusions were well documented and supported by appropriate technical information. (Section E1.1)
- The licensee assured that Temporary System Alterations were installed in accordance with the design bases and regulatory requirements. (Section E1.2)
- Engineering was involved, where appropriate, and supported operations and maintenance through timely evaluations and proposed resolutions of routine and emergent plant problems. (Sections E2.1)
- The licensee's self-assessment process was effective in identifying problems related to engineering. (Section E7.1)
- The findings identified by the licensee during the Updated Final Safety Analysis Report Review Project were being documented, processed, and tracked in accordance with the licensee's corrective action program and NRC regulations. (Section E7.2)
- A Non-Cited Violation was identified for failure to establish environmental qualification for electrical equipment located in the Unit 1 steam trestle area. (Section E8.1)
- A Non-Cited Violation was identified for inadequate venting of the sodium hydroxide tank and inadequate inservice testing of the tank's vacuum breaker check valves. (Section E8.2)

## REPORT DETAILS

### III. Engineering

#### **E1 Conduct of Engineering**

##### **E1.1 Design Changes and 10 CFR 50.59 Evaluations**

###### **a. Inspection Scope (37550, 37001)**

The inspectors reviewed selected risk significant design changes documented in plant changes/modifications (PC/M); related 10 CFR 50.59 screenings/safety evaluations; and PC/M change request notices (CRNs). The reviews were conducted to assess the overall technical adequacy of the changes and to verify that the changes were consistent with the plant licensing and design bases, regulatory requirements, and licensee procedures. The documents reviewed are listed in the attachment to this inspection report (IR).

###### **b. Observations and Findings**

The inspectors found that the purpose, scope, and impact of the design changes were adequately described in the PC/Ms. The PC/Ms provided sufficient detail to ensure proper installation and testing and performed design integration to address the impact of other PC/Ms. The inspectors observed that the PC/Ms included marked up versions of the Updated Final Safety Analysis Report and the design basis documents for revision, where applicable. The inspectors verified on a sampling basis that post modification testing was performed and that this testing verified that the effected systems, structures, and components (SSCs) could accomplish their design functions. In addition, the inspectors verified that drawings, procedures, and the total equipment data base (TEDB) were updated.

The licensee made general changes to the PC/Ms via CRNs. The inspectors determined that the CRNs were complete, did not need or cause a need for a safety evaluation, and contained configuration control attributes. The CRNs were not performed to correct initial design mistakes. All the CRNs met requirements of site procedure QI-3-PSL-1, Design Control. The CRNs supported the outage and installation schedule. The inspectors verified that the PC/Ms and CRNs had been reviewed and approved by the appropriate organizations in accordance with the licensee's procedures.

The inspectors found that the 10 CFR 50.59 screenings/safety evaluations reviewed addressed the effects of the changes on applicable systems and components, impact on the licensing and design bases of the plant, and whether the change could be implemented without prior NRC approval. Effects of various postulated failures of equipment as required were considered in the evaluations. The changes did not degrade the capability of the effected SSCs to perform their design functions. The conclusions were well documented and supported by appropriate technical information. The inspectors determined that the evaluations reached valid conclusions concerning acceptability of the changes.

c. Conclusions

The design changes were technically adequate and were consistent with the plant licensing and design bases, regulatory requirements, and licensee procedures. The 10 CFR 50.59 screenings/safety evaluations reviewed were consistent with regulatory requirements and plant procedures. The conclusions were well documented and supported by appropriate technical information.

E1.2 Temporary System Alterations

a. Inspection Scope (37550, 37001)

The inspectors reviewed the Temporary System Alterations (TSA) implemented on Unit 1 between January 1, 1998, and February 7, 2000, to verify that the TSAs were being implemented and controlled to assure conformance with the design bases and regulatory requirements. A list of the TSAs reviewed is included in the attachment to this IR.

b. Observations and Findings

The TSA process was used by the licensee to make temporary changes to systems and components. The inspectors found that the TSA controls, evaluations and reviews documented in processing the TSAs resulted in the conformance with design bases. The 10 CFR 50.59 screenings/safety evaluations for each TSA correctly considered the effects of the changes and reached valid conclusions. Instructions for installing the alterations were clear and detailed. Adequate functional tests were specified to be performed after installation and restoration. Control room documents indicated the alterations that were in effect and equipment tagging was used, as appropriate. In general, the alterations were in effect for a relatively short time period, with only a few installed for more than nine months. There were only two alterations in effect at the time of this inspection.

c. Conclusions

The licensee assured that Temporary System Alterations were installed in accordance with the design bases and regulatory requirements.

**E2 Engineering Support of Facilities and Equipment**

E2.1 Engineering Support to Operations and Maintenance

a. Inspection Scope (37550)

The inspectors assessed engineering involvement in providing support to operations and maintenance for routine and emergent activities. The assessment was based on a review of the engineering support provided in addressing Condition Reports (CRs) and Operator Workarounds. In addition, the inspectors evaluated the licensee's engineering backlog through a review of status information provided by the licensee for CRs,

operating experience items, plant management action items (PMAIs), vendor manual updates, and equipment database entries. A list of the documents reviewed is included in the attachment to this IR.

### Condition Reports

The licensee addressed their maintenance problems, operational problems, industry event data, historical event data, equipment failures, audit and self-assessment findings, and corrective action failures through the CR program. Longer term corrective actions from the CRs were identified and tracked to completion through PMAIs. The inspectors' review of selected risk significant CRs and their related PMAIs revealed that the evaluations and engineering direction were generally completed on time or had management approved time extensions. The inspectors noted that three PMAIs were overdue but that they did not contain critical problems or risk significant actions.

CRs 98-1821, 98-1877, 98-1878, and 98-1944 documented stress corrosion cracks identified on the Unit 2 emergency core cooling system (ECCS) suction piping from the refueling water tank. The inspectors found that the engineering actions taken and in progress were thorough and appropriate. Request for Engineering Assistance (REA) 99-005 was prepared to provide a long-term solution for the cracking identified in the ECCS suction piping. The inspectors reviewed this REA and found that it proposed replacement of the existing piping with piping having a greater corrosion resistance. The justification for the proposed replacement and other information provided in this REA were very brief, but adequate. Engineering Evaluation PSL-ENG-SEMS-98-102 provided a review of stress corrosion cracks in the Unit 2 ECCS suction piping to justify continued operability until the Cycle 12 Refueling Outage. The inspectors performed a walkdown of the piping and reviewed the evaluation. They found that the evaluation provided data and flaw (crack size) evaluations that satisfactorily supported the operability of the piping until its planned replacement.

CR 99-0315 initially documented the failure of a sodium hydroxide (NaOH) tank vacuum breaker check valve during a test. Subsequently, it addressed deficiencies discovered in the design and operation of the tank and provided an operability evaluation and corrective actions. These deficiencies resulted in Licensee Event Report (LER) 50-335/99-001, which is discussed further in section E8.2 of this IR. Generally, the CR addressed the conditions adequately. However, as discussed in E8.2, a calculation used in assessing operability had a weakness in the justification for an assumption.

CR 99-2553 was a trend report on valve deficiencies. Through its evaluation and corrective action, engineering was organizing failure information and providing scheduled, timely corrective action. The inspectors reviewed the associated data and examined records of replaced valves to corroborate the actions, finding no problems.

### Operator Workarounds

The licensee's workaround list was developed and maintained by the Operations organization to formally document long term or time-consuming problems that could affect operation of the plant. The program was described in Operations Policy Procedure

OPS-510. The list identified eight items and provided the estimated correction dates. Through discussion with control room supervision, the inspectors determined that the operations staff had an appropriate working level knowledge of the program and understood their role in the process. The interview revealed that Operations had done a staff-wide review of plant problems to produce the list. The inspectors found that Engineering was involved in the resolutions that required engineering expertise. The inspectors discussed the workaround list with both Operations and Engineering and found that the items were understood and were either being actively worked or were scheduled for repair. Appropriate guidance and contingencies were in place for operators to deal with each of the workarounds.

#### Management of Engineering Backlog

Nearly all of the engineering work activities mentioned in the scope section were being tracked and trended by the licensee so that they were able to provide statistical charts indicating whether the backlog of work was expanding or decreasing. Condition reports were closed within 30 days. Operating Experience program items, such as information notices were dispositioned (i.e., applicability determined and assignment made) within 60 days. The total number of open PMAIs was trending down. The inspectors also requested and reviewed information showing the relative age of the PMAIs. Managers told the inspectors that the goal for non-outage PMAI closure was twelve months. There were no open PMAIs older than 1996. The number of open PMAIs for 1996, 1997, and 1998 were 6, 8, and 39 respectively. Therefore, the 12 month goal was being met in most cases. Exceptions were allowed in a controlled manner.

#### c. Conclusions

Engineering was involved, where appropriate, and supported operations and maintenance through timely evaluations and proposed resolutions of routine and emergent plant problems.

### **E7 Quality Assurance in Engineering Activities**

#### E7.1 Assessments/Audits

##### a. Inspection Scope (37550)

The inspectors reviewed three self-assessment reports selected from the assessments performed in 1998 and 1999. These are identified in the list attached to this IR.

##### b. Observations and Findings

The self-assessment reports reviewed included a site engineering outage critique, a self-assessment of motor refurbishment process, and a self-assessment of the inservice inspection and inservice testing programs. The scope and depth of the assessments appeared appropriate for the areas examined. The findings identified in the reports were indicative of thorough reviews and were properly dispositioned.

c. Conclusions

The inspectors concluded that the licensee's self-assessment process was effective in identifying problems related to engineering.

E7.2 Updated Final Safety Analysis Report Review Project

a. Inspection Scope (37550)

The inspectors reviewed the results and status of the St. Lucie Plant Updated Final Safety Analysis Report (UFSAR) Review Project to determine if the findings identified by the licensee were documented and processed in accordance with the licensee's corrective action program and NRC regulations.

b. Observations and Findings

The UFSAR Review Project was being implemented in three phases. Phase I involved performing UFSAR accuracy reviews for 10 risk significant systems on St. Lucie Units 1 and 2. The selected systems for Unit 1 were high pressure safety injection, reactor protection system (RPS), engineered safety features actuation system (ESFAS), safety injection tank (SIT), and low pressure safety injection (LPSI). The systems selected for Unit 2 were auxiliary feedwater, RPS, ESFAS, SIT, and LPSI. Phase II of the project involved performing UFSAR completeness reviews for the 10 risk significant systems and performing UFSAR accuracy and completeness reviews for the remaining plant risk significant systems. Phase III involved performing UFSAR accuracy and completeness reviews for the balance of the UFSAR.

The licensee had completed Phases I and II at the time of this inspection. The inspectors noted that the licensee was taking corrective actions to address the findings identified during the reviews. These corrective actions included, but were not limited to, initiating UFSAR changes via 10 CFR 50.59, generating CRs, and implementing plant modifications. Implementation of one of the modifications, PC/M 99111, was reviewed by the inspectors during this inspection. Engineering management indicated during this inspection that the Phase III reviews were being scoped and are scheduled to be completed this year.

c. Conclusions

The inspectors concluded that the findings identified by the licensee during the UFSAR Review Project were being documented, processed, and tracked in accordance with the licensee's corrective action program and NRC regulations.

**E8 Miscellaneous Engineering Issues (37550, 92700, 92903)**

E8.1 (Closed) EEI 50-335/99-04-05: Failure to Establish Environmental Qualification in Accordance with 10 CFR 50.49 for Electrical Equipment Important to Safety Located in the Harsh Environment of the Unit 1 Steam Trestle Area

During a design inspection (IR 50-335,389/96-201) and subsequent followup inspections (IR 50-335,389/97-06 and IR 50-335,389/99-04), the NRC identified that the licensee did not environmentally qualify equipment important to safety in the Unit 1 steam trestle area to meet the requirements of 10 CFR 50.49. The licensee's position was that the environment was considered mild and not within the scope of 10 CFR 50.49. The NRC subsequently evaluated the licensee's position and provided its conclusion in a Task Interface Agreement [TIA] 97-018 response dated March 31, 1999, and a supplement to this TIA dated June 2, 1999. The NRC found that the Unit 1 steam trestle area would experience a harsh environment during a high energy line break (HELB) and that the electrical equipment in the area was required to be qualified for a harsh environment in accordance with 10 CFR 50.49. The licensee was informed of the NRC's conclusion and the basis for that conclusion by letter dated June 14, 1999. The letter stated the need for the licensee to correct the noncompliance and review other electrical equipment important to safety located in the Unit 1 steam trestle area to verify that the equipment had been properly qualified for a harsh environment.

The licensee initiated CR 99-0780 to address this issue. Supplement 1 to CR 99-0780 included a list of safety-related equipment located in the Unit 1 steam trestle area. The licensee performed an operability assessment which concluded that the equipment would remain operable during an HELB in the steam trestle area. The inspectors reviewed this assessment and noted that the justification provided for the operability of electrical equipment that was not in weatherproof boxes was based on a 1983 NRC Safety Evaluation Report and accompanying Technical Evaluation Report. These reports indicated that the equipment would not be significantly affected by the HELB because of the short duration of the accident. In contrast, electrical equipment in weatherproof boxes, such as the Woodward governor controls, were considered operable based on test data supporting the effects of thermal lag on the components.

The licensee performed Engineering Evaluation PSL-ENG-SENS-99-047, Evaluation of Environmental Effects of Postulated High Energy Line Breaks (HELB) in the Steam Trestle Area, which documented the methodology, inputs, and assumptions that were used to evaluate a spectrum of high energy line breaks in the Unit 1 steam trestle in order to establish the worst case environmental parameters. The licensee identified limiting break locations that potentially affected four motor operated valves (MV-09-7, MV-09-8, MV-09-11, and MV-09-12). These valves were determined to be already included in the licensee's environmental qualification (EQ) program and were either qualified or "qualifiable" with additional documentation. The licensee issued PMAI PM99-08-138, to track the activities and schedule for completion of the corrective actions associated with this issue, such as the preparation of qualification documentation and inclusion of this documentation in the EQ program.

The inspectors informed the licensee that the failure to establish environmental qualification for applicable electrical equipment in the Unit 1 steam trestle area constituted a violation of NRC 10 CFR 50.49 requirements. The safety significance for this violation is considered low in that the licensee's operability assessment concluded that the equipment would remain operable during a HELB. At the time of this inspection, the licensee had not identified any electrical equipment in the Unit 1 steam trestle area which needed to be replaced as a result of this EQ issue. This Severity Level IV violation

is being treated as a Non-Cited Violation (NCV), consistent with Section VII.B.1.a of the NRC Enforcement Policy. This violation is identified as NCV 50-335/2000-04-01, Failure to Establish Environmental Qualification for Electrical Equipment in the Unit 1 Steam Trestle Area.

During discussions subsequent to the inspection, licensee personnel stated that appropriate environmental qualification will be provided for all Class 1E electrical components located in the Unit 1 steam trestle area that are required to function to mitigate or monitor an accident. EEI 50-335/99-04-05 is closed.

E8.2 (Closed) Licensee Event Report (LER) 50-335/99-01: Inadequate Design and IST Surveillance Requirements for Iodine Removal System.

This LER reported that the sodium hydroxide (NaOH) tank in the Unit 1 iodine removal system (IRS) did not have adequate venting to ensure proper post accident containment spray pH during certain scenarios. The LER also reported that an inservice test used to demonstrate the capabilities of two vacuum breaker check valves in the venting arrangement for the tank may have been inadequate. These conditions were discovered by the licensee on March 9, 1999, while investigating a failure of one of the vacuum breaker check valves to open during a surveillance test.

The LER identified the root causes of the reported conditions as design inadequacies and personnel error. The original design calculation for operation of the IRS failed to account for the partial vacuum that could occur in the tank before the vacuum breaker check valves would open to provide venting. Instead, it assumed the tank was always vented to atmosphere. The licensee's evaluation determined that the partial vacuum could have caused the post accident containment spray to have a pH that exceeded the design limits stated in the UFSAR but not the limits required for operability. As initial corrective action, the licensee opened a vent valve on the NaOH tank to atmosphere. In addition, the licensee isolated a non-safety nitrogen supply to the tank. This resulted in the tank being fully vented to atmosphere, met the conditions assumed in the original calculation, and assured that the appropriate pH would be obtained. Further, this eliminated any need for operation or testing of the vacuum breaker check valves to assure adequate venting. The changes were evaluated and justified by the licensee in Safety Evaluation PSL-ENG-SEMS-98-080 and CR 99-0315.

In addition to venting the NaOH tank as described above, the licensee identified the following corrective actions: (1) develop a long term solution for the NaOH tank design problems, (2) review outstanding issues pertaining to inservice testing surveillance requirements, and (3) perform a design review of other important safety tanks that use lift check valves as vacuum breakers to determine if similar design deficiencies exist.

The conditions reported in this LER were addressed in CR 99-0315. The inspectors reviewed CR 99-0315 and found that it adequately justified the current operability and provided for appropriate corrective actions. The evaluation of past operability was adequate but had a weakness in the justification for an assumption. It accounted for uncertainties in tank vacuum and its effect on the performance of the eductors during IRS operation by eliminating one eductor in the calculation of expected pH. The engineer

who prepared the calculation considered this a conservative measure but failed to explain or justify the use of this assumption in the calculation. The inspectors accepted the assumption.

The inspectors found that the licensee documented the corrective actions for this LER in CR 99-0315 and in PMAIs which tracked their completion. The inspectors verified a completion of the corrective action to develop a long term solution for the design problems by reviewing the recommended modification documented in REA 99-019. This corrective action had been tracked as PMAI PM99-04-074 and was closed. In addition, the inspectors verified that the licensee had completed the design review of other tanks that used lift check valves as vacuum breakers by reviewing the documented results provided with closed PMAI 99-04-075.

The inadequate venting of the NaOH tank and the inadequate inservice test of the tank's vacuum breaker check valves indicate that the licensee's design control measures did not assure that the design bases for the tank were correctly translated into drawings, instructions, specifications, and/or procedures for the manufacture and the testing of the tank. This represents a violation of the requirements of 10 CFR 50, Appendix B, Criterion III, Design Control. This Severity Level IV violation is being treated as a Non-Cited Violation (NCV), consistent with Section VII.B.1 of the NRC Enforcement Policy. It is identified as NCV 335/2000-04-02, Inadequate Venting Design and Testing. This violation is in the licensee's corrective action program as CR 99-0315. This LER is closed.

## **V. Management Meetings**

### **X1 Exit Meeting Summary**

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on March 3, 2000. Subsequent discussions were held with the licensee on March 7 and March 15, 2000. The licensee acknowledged the findings presented. Proprietary information is not included in this inspection report.

**Partial List of Persons Contacted****Licensee**

C. Bible, Site Engineering Manager  
 R. Custis, Configuration Management Supervisor  
 K. Frehafer, Licensing Engineer  
 D. Jaedo, Maintenance Supervisor  
 K. Mohindroo, Plant Engineering Manager  
 M. Moran, Operations Support Engineering Manager  
 R. Noble, Design Basis Supervisor  
 D. Parker, EQ Specialist, Corporate Engineering  
 T. Patterson, Systems Engineering Manager  
 V. Rubano, Chief Nuclear Engineer, Corporate Engineering  
 M. Snyder, Quality Assurance Supervisor  
 C. Wasik, FSAR Project Lead  
 E. Weinkam, Licensing Manager  
 R. West, St. Lucie Plant General Manager

Other licensee employees contacted included engineers, operators, technicians, maintenance personnel, and administrative personnel.

**NRC Personnel**

D. Lanyi, Resident Inspector  
 T. Ross, Senior Resident Inspector  
 G. Warnick, Resident Inspector

**INSPECTION PROCEDURES USED**

37001, 10 CFR 50.59 Safety Evaluation Program  
 37550, Engineering  
 92700, Onsite Followup of Written Reports of Nonroutine Events at Power Reactor Facilities  
 92903, Followup - Engineering

**ITEMS OPENED, CLOSED, AND DISCUSSED****Opened**

|                 |     |   |
|-----------------|-----|---|
| 50-335/00-04-01 | NCV | Failure to Establish Environmental Qualification for Electrical Equipment in the Unit 1 Steam Trestle Area (Section E8.1) |
| 50-335/00-04-02 | NCV | Inadequate Venting Design and Testing (Section E8.2)  |

**Closed**

|                  |     |  |
|------------------|-----|--|
| 50-335/99-04-05  | EEI | Failure to Establish Environmental Qualification in Accordance with 10 CFR 50.49 for Electrical Equipment Important to Safety Located in the Harsh Environment of the Unit 1 Steam Trestle Area (Section E8.1) |
| 50-335/00-04-01  | NCV | Failure to Establish Environmental Qualification for Electrical Equipment in the Unit 1 Steam Trestle Area (Section E8.1)  |
| 50-335/99-001-00 | LER | Inadequate Design and IST Surveillance Requirements for Iodine Removal System (Section E8.2)   |
| 50-335/00-04-02  | NCV | Inadequate Venting Design and Testing (Section E8.2)   |

**Discussed**

None

## **LIST OF DOCUMENTS REVIEWED**

### **PC/Ms**

97081, PZR Level Control Relay Coil Transient Suppression.  
98006, PT Scaling Changes  
98011, RPS Bistable Pin Engagement  
98014M, MSIV Bypass Valve Modification  
98021, RCP Seal Change-out  
98037, Delete By-Pass Function for CCW Low Flow to RCPs  
98065, Recorder Changeout  
98071, HVS-1D Slow Speed Motor Lead Correction  
98078, Emergency Diesel Generator 2A App. R Modification  
98129, Replacement of 2VE-6A1 Contactors  
98135 , Branch Connections on 1-24"-CS-2 and -3  
99019, GL 89-10 MOV Motor, Spring Pack and TOL Replacement  
99066M, D/G Air Start Tanks, Safety Relief Valve Blowdown Setpoint  
99111, Upgrade SE-02-1, SE-02-2, SE-02-3, & SE-02-4 to EQ Standard

### **10 CFR 50.59 Safety Evaluations/Engineering Evaluations**

JPN-PSL-SEES-97-061, Temporary Disabling of the 1B 125 VDC System Ground Annunciation  
PSL-ENG-SEMS-98-080, Isolation of the Nitrogen Supply to the NaOH Tank  
PSL-ENG-SEMS-98-102, Engineering Evaluation of ECCS Suction Lines  
PSL-ENG-SENS-97-081, Operation of the MSIV Bypass Valves During Plant Warm-up  
PSL-ENG-SENS-98-052, Disabling the Low Vacuum Turbine Trip  
PSL-ENG-SENS-99-047, Evaluation of Environmental Effects of Postulated High Energy Line Breaks (HELB) in the Steam Trestle Area

### **Unit 1 Temporary System Alterations**

98-01, Class boundary change to safety injection system outside containment  
98-02, Disconnection of detector in linear power range  
98-03, One day temporary power to ESFAS to allow replacement of power supply  
98-04, Removal from service of one heated junction thermocouple from the QSPDS.  
98-05, One hot leg RTD out of service  
98-06, Instrumentation to monitor 1B2 RCP seal  
98-07, Instrumentation to monitor 1B2 RCP seal  
98-08, Letdown line differential pressure switch bypassed  
98-09, Reactor cavity temperature monitoring out of service  
98-10, Addition of emergency lighting  
98-11, One hot leg RTD out of service  
98-12, One hot leg RTD out of service  
98-13, Backup seal water for circulating water pump  
98-14, Not implemented  
98-15, Low condenser vacuum trip on main turbine disabled  
98-16, Bypass thermal overload for valves V2514 and V3453

ATTACHMENT

98-17, Not implemented  
 98-18, Bypass thermal overload for valve V3453  
 98-19, Not implemented  
 98-20, Pressure gauges for differential pressure at component cooling water heat exchangers  
 98-21, Fuel cask crane limit switch jumpered  
 98-22, Monitoring NAOH tank pressure  
 98-23, Disabled 1A feedwater pump bearing temperature/oil pressure alarm  
 98-24, Disable isolated phase bus cooling water flow alarm  
 99-01, Not implemented  
 99-02, Add second hydrogen ventilation line at main turbine  
 99-03, Temporary power cable to traveling screen  
 99-04, Temporary power to RIS-26-35  
 99-05, Temporary power to moisture separator reheater controller  
 99-06, Not implemented  
 99-07, Temporary power cable to traveling screen  
 99-08, Remove cell No.31 from 1C battery  
 99-09, Permit automatic operation of traveling screen in fast mode  
 99-10, Allow use of integrated leak rate piping for temporary service  
 99-11, Jumper 2 cells at 1D battery  
 99-12, Temporary power to non-safety-related vital bus 1  
 99-13, Not implemented  
 99-14, Temporary outage power from non-safety-related source  
 99-15, Temporary power to control room radiation monitor during PC/M implementation  
 99-16, Permit automatic operation of traveling screen in fast  
 99-17, Temporary power for maintenance work from pressurizer heater distribution panel  
 99-18, Jumper truck operated contact in main breaker for bus 1B2  
 99-19, Jumper three truck operated contacts in main breaker for bus 1B2 (open)  
 00-01, Not implemented  
 00-02, Lower set point for pressure indicating switch for intake cooling water system

### **Change Request Notices (CRN)**

CRN 99005-8619, Intake structure anti-shift bracket changes  
 CRN 99009-8676, Replace damaged existing cable  
 CRN 99011-8604, Terminal wiring clarification  
 CRN 99014-8686, HS-2501 wiring repair  
 CRN 99016-8628, Reload update  
 CRN 99016-8673, Fuel assembly T1 reconstitution  
 CRN 99018-8615, EDM qualification planned changes  
 CRN 99111-8669, Eliminate installation of NAMCO connector on SE-02-3 from scope of PC/M

**Request for Engineering Assistance (REA)**

REA 99-005, ECCS Piping Replacement  
REA 99-019, Unit 1 NaOH Tank Loop Seal

**Self Assessments**

Engineering 3<sup>rd</sup> Quarter Self-Assessment - Motor Refurbishment Process, dated September 30, 1998  
Site Engineering SL1-15 Outage Critique, dated February 6, 1998  
St. Lucie Site Self Assessment, System Performance Group, dated April 27, 1999

**Procedures**

0010124, Temporary System Alteration Control, Rev. 50  
1-IMP-70.05, QSPDS HJTC Sensor Control,  
QI-3-PSL-1, Design Control  
OPS-510, Operations Policy Procedure

**Condition Reports (CR)**

|              |              |            |            |
|--------------|--------------|------------|------------|
| CR 00-0089   | CR 99-1931   | CR 99-0003 | CR 98-1821 |
| CR 98-1877   | CR 98-1878   | CR 98-1944 | CR 99-0315 |
| CR 99-2096   | CR 99-1830   | CR 99-1680 | CR 99-2118 |
| CR 99-1743   | CR 99-2029   | CR 99-1823 | CR 98-2096 |
| CR 99-1973   | CR 99-0841   | CR 99-2049 | CR 99-1970 |
| CR 99-2553   | CR 97-1331-1 | CR 99-1163 | CR 99-1137 |
| CR 99-2285   | CR 99-2160   | CR 98-1944 | CR 99-0447 |
| CR 99-0780-1 | CR 99-1278   | CR 99-1293 | CR 98-1938 |

**Miscellaneous Documents**

Engineering Business Plan for 1999 Year End