U.S. NUCLEAR REGULATORY COMMISSION

REGION II

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Licensee:	Florida Power & Light Co.
Facility:	St. Lucie Nuclear Plant, Units 1 & 2
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Enclosure

EXECUTIVE SUMMARY

St. Lucie Nuclear Plant, Units 1 & 2
NRC Inspection Report 50-335/98-09, 50-389/98-09

This integrated inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a 7-week period of resident inspection; in addition, it includes the results of inspections by two regional inspectors.

Operations

- Control Room conduct was professional and demonstrated good team work. Three part communications were consistently used. Operators demonstrated a high level of control and awareness of plant status. Attentiveness to annunciator alarms and response to changing plant conditions were prompt and effective. Command and control and Operations supervisory oversight were clearly evident. Management demonstrated increased interest and efforts to reduce the number of control board deficiencies. (Section O1.1)

- Unit 2 new fuel receipt inspection, fuel handling operations, and transfer to new fuel storage were conducted in a smooth and orderly manner. (Section O1.2)

- Timely preparations for hurricane weather conditions were made by the licensee consistent with their program and measures were in place to ensure a continued state of readiness. (Section O1.3)

- A Non-Cited Violation was identified for one licensee-identified instance in which an Equipment Clearance Order was not properly released due to personnel errors. Other selected Equipment Clearance Orders were inspected and verified to have been prepared, implemented, and released in accordance with program requirements. (Section O1.4)

- Safety-related systems and components were properly aligned and maintained consistent with plant procedures, drawings, and operability requirements. (Sections O2.2, O2.3, and O2.4)

- Non-licensed operators were knowledgeable of equipment and work occurring at their watch stations. They were thorough in their tours, gave appropriate attention to system details, and reported deficiencies to the control room with follow-up actions taken. (Section O4.1)

- The Condition Report (CR) program for identifying and resolving plant problems remained effective. Plant personnel and management exhibited an appropriate threshold for identifying problems, initiating CRs, using root cause analysis, and assigning Event Response Teams. Considerable management attention was focused on any CR open for longer than thirty days to ensure timely resolution. (Section O7.1)

Maintenance

- Corrective, preventive and predictive maintenance, and surveillance activities were performed in a quality manner with appropriate documentation. Procedures were in place and being conscientiously followed by qualified personnel. The interface between maintenance and operations personnel worked well. Applicable foreign material controls, measuring and test equipment controls, post-maintenance testing requirements, and quality control hold points were accomplished in accordance with requirements. (Section M1.1)

- A strong predictive maintenance program was in place and was effectively identifying and trending equipment problems. (Section M1.1)

- The licensee's program did not provide meaningful trending of overdue preventive maintenance (PM) tasks. Recorded overdue PMs for 1998 did not include any PMs required by regulations. Weaknesses were identified in the PM change process relative to documentation of justification for extending PM due dates and proper signatures on PM Change Request forms. (Section M3.1)

- Quality control (QC) surveillance inspections were being accomplished by knowledgeable and thorough inspectors utilizing established guidelines, close observation and detailed questioning techniques. Daily quality summaries were a valuable communication tool and indicative of a strong QC surveillance program. (Section M7.1)

Engineering

- The plant change/modification package for the 2A Emergency Diesel Generator governor was sufficiently detailed and was properly reviewed and approved. (Section E1.1)

- The operability assessment of a containment vacuum relief valve issue was detailed and technically sound. The assessment was timely and an unnecessary shutdown was appropriately averted. (Section E2.1)

- Goals and monitoring criteria were being established as required by the Maintenance Rule. Monitoring of the instrument air system was appropriately identified as needing to be upgraded to (a)(1) requirements. (Section E4.1)

Plant Support

- Chemistry technicians performed well in use of the Unit 2 post-accident sampling system as demonstrated by their familiarity with the system, close adherence to applicable procedures, and the consistency of their results compared to the daily sample. The sampling was unnecessarily complicated by a known equipment deficiency that had not been addressed in the procedure. (Section R4.1)

- Chemistry technicians demonstrated good sampling and analytical techniques as evidenced by procedural adherence, knowledge level, and a questioning attitude regarding unexpected results. (Section R4.2)

- The licensee successfully demonstrated its ability to adequately staff all emergency response facilities in a timely manner during an unannounced, off-hours drill. (Section P1.1)

- Quarterly integrated emergency preparedness drills were being conducted to enhance the quality of Emergency Response Organization (ERO) training. (Section P5.1)

- The licensee maintained adequate coverage for ERO positions at all times. Arrangements have been made to provide timely access for ERO individuals who arrive without their security badges in response to an emergency. (Sections P6.1 and P6.2)

- Traffic control arrangements should not present an impediment to either a site evacuation of nonessential employees during an emergency, or the ability of incoming ERO personnel to reach the plant in response to an emergency call-out. (Section P6.3)

- The 1998 emergency preparedness (EP) program audit fully satisfied the 10 CFR 50.54(t) requirement for an annual independent audit of the EP program. (Section P7.1)

- Security personnel performed their duties in a deliberate and conscientious manner consistent with the site security plan. Security facilities and equipment were operating well and in proper condition to ensure physical protection of the plant. (Sections S1.1 and S2.1)

- The transition of security force contractors went very smoothly with no apparent degradation of security program effectiveness. The transfer occurred without incident due to considerable preparation and management attention. (Section S6.1)

- NRC inspectors identified one instance of improperly stored combustible materials. Additionally, proper attention was not provided regarding a Hot Work Permit for work involving an open flame. (Section F1.1)

Report Details

Summary of Plant Status

Unit 1 operated at essentially 100% power for the entire report period except for two unplanned downpowers due to excessive jellyfish intrusion into the intake canal. On September 14, power was reduced to about 60%, and on September 18 it was reduced to about 93%. In both cases, full power was restored by the next day. Unit 1 exceeded 200 days of continuous operation on September 11.

Unit 2 operated at essentially 100% power for the entire report period, with no significant transients or unplanned downpowers.

I. Operations

O1 Conduct of Operations

O1.1 Routine Observations of Control Room Operations

a. Inspection Scope (71707)

Using inspection procedure (IP) 71707, inspectors conducted frequent tours of the Main Control Room (MCR) during plant operations to verify proper staffing, operator attentiveness, adherence to procedures, communications, and command and control of activities.

b. Observations and Findings

Inspectors observed that the Unit 1 and 2 main control board (MCB) annunciators were maintained in a "black board" status, with only one or two lit annunciators involving nonsafety-related equipment. Also, an increase in management attention and efforts to reduce MCB deficiencies was observed during the period. In the beginning of July, management reinstituted the previous method for identifying deficiencies on the MCBs with green plant work order (PWO) tags. This method made the deficiencies more visible, and improved tracking and accountability for repairs. All nonoutage tags that affected equipment functionality (i.e., "C" tags) received close scrutiny by management and got top priority for scheduling of repairs.

Overall, operators exhibited a high level of control and awareness of plant status. Attentiveness to MCB annunciator alarms and response to changing plant conditions were prompt and effective. Three-part communications were consistently applied. Operator conduct was professional, conscientious, and demonstrated good team work. Command and control by the assistant nuclear plant supervisors (ANPS) was evident. Operator knowledge was consistent with training and responsibilities. Inspectors verified shift staffing was in compliance with procedural and TS requirements. Shift turnovers were accomplished in an orderly manner following a board walkdown by the off-going and on-coming operators and ANPSs.

c. Conclusions

Control Room conduct was professional and demonstrated good team work. Three part communications were consistently used. Operators demonstrated a high level of control and awareness of plant status. Attentiveness to annunciator alarms and response to changing plant conditions were prompt and effective. Command and control and Operations supervisory oversight were clearly evident. Management demonstrated increased interest and efforts to reduce the number of control board deficiencies.

O1.2 Unit 2 New Fuel Receipt Inspection And Transfer (60705)

On September 11, the inspectors observed licensee personnel unload, inspect and transfer fresh fuel assemblies from their shipping containers into the new fuel storage racks in preparation for the Unit 2 eleventh refueling outage (SL2-11). This activity was adequately staffed by Operations and Engineering. The inspectors observed the inspection and handling of two fuel assemblies was in accordance with OP No. 1610020, Revision 23, "Receipt and Handling of New Fuel and CEAs." Fuel handling operations were conducted in a smooth and orderly manner.

O1.3 Hurricane Season Preparations (71707)

In preparation for the Florida hurricane season between June and November, the licensee implemented Administrative Procedure (ADM) No. 04.01, Revision 3, "Hurricane Season Preparation." The Emergency Preparedness (EP) supervisor was responsible for ensuring the hurricane season checklist of ADM-04.01 was completed by all responsible plant departments before June 1. An inspector reviewed the completed checklist and interviewed the EP supervisor. All checklist items were signed off prior to June 1, with only a few minor discrepancies noted on the checklist. In addition to the annual hurricane season checklist, the EP supervisor had recently begun to conduct biweekly walkdowns to ensure the plant remained ready. The inspector also reviewed a completed biweekly walkdown checklist, and conducted site walkdowns to verify plant readiness for a hurricane. The inspector concluded that the licensee had made timely preparations for possible hurricanes consistent with their ADM-04.01 program and was taking measures to ensure a continued state of readiness.

O1.4 Equipment Clearance Orders

a. Inspection Scope (71707)

The inspectors walked down several Equipment Clearance Orders (ECO) during the report period. Also, the inspectors reviewed a licensee identified ECO human performance error.

b. Observations and Findings

The inspectors observed one ECO being executed in the field (1-98-08-108, Component Cooling Water system) and one already hanging (1-98-08-058, 1B Charging Pump). Two others were walked down after the ECO were removed, and affected equipment

was verified to be properly restored (2-98-02-098, 2A Intake Cooling Water Pump and 2-98-08-061, Component Cooling Water system). In all cases, the clearance boundaries were technically adequate, ECOs activities properly executed, and procedural requirements met.

On September 4, the Nuclear Plant Supervisor (NPS) and ANPS identified that an alarm associated with the 2A charging pump had not cleared as expected when the ECO had been removed. Further investigation by the Operations department revealed that tag #4 of ECO 2-98-09-009 was still hanging with the breaker in the tagged open position. The step in the ECO to remove the tag and shut the breaker had been signed-off as completed and independently verified as performed satisfactorily. The error was identified by Operations supervisory personnel during the closeout of the ECO due to their attentiveness to MCB alarms and a questioning attitude.

The licensee's corrective action response to the event was prompt and comprehensive. A complete audit of all existing tags was conducted by the Operations department, with no other errors identified. Additional guidance was promptly issued to all operators regarding management expectations for hanging and releasing ECOs. As part of this guidance, operators were expected to treat field copies as they would treat originals. All signoff blocks were to be initialed with date and time as the operators performed the procedure in sequence. Operators and ANPSs were also required to inventory the tags before hanging and after removing them. Independent verification would be performed at a distinctly separate time, each with his own copy of the paperwork. Lastly, all questions were to be cleared up before starting any work. The inspectors reviewed these corrective actions and verified their accomplishment in the field.

Technical Specification 6.8.1 requires that "written procedures shall be established, implemented, and maintained ..." for certain important activities such as Equipment Control (locking and tagging). Administrative procedure ADM-09.04, "Equipment Clearance Orders," Revision 6, contains specific requirements for tag removal and component realignment as well as independent verification. The operator who removed the ECO tags and the operator who performed the independent verification failed to follow these steps. Although other violations involving clearance issues have been previously identified, this violation is not considered repetitive because previous ECO-related violations occurred during the preparation phase of the clearances. This violation was caused by improper execution of an adequate ECO. This non-repetitive, licensee identified and corrected violation is being treated as a Non-Cited Violation (NCV) consistent with section VII.B.1 of the NRC Enforcement Policy and is identified as NCV-98-09-01, Failure To Properly Clear An Equipment Clearance Order.

c. Conclusions

A Non-Cited Violation was identified for one licensee-identified instance in which an Equipment Clearance Order was not properly released due to personnel errors. Other selected Equipment Clearance Orders were inspected and verified to have been prepared, implemented, and released in accordance with program requirements.

O2 Operational Status of Facilities and Equipment

O2.1 General Tours of Safety-Related Areas (71707)

General tours of safety-related areas were performed by the inspectors throughout both units to examine the physical condition of plant equipment and structures, and to verify that safety systems were properly maintained and aligned. These general walkdowns included the accessible portions of safety-related structures, systems, and components (SSC).

Overall material conditions for Unit 1 and Unit 2 SSCs were good. Almost all plant areas were clear of trash and debris. Section F1.1 of this report discusses combustible material storage and control issues. Minor equipment and housekeeping problems identified by the inspectors during their routine tours were reported to the responsible NPS, ANPS and/or maintenance department for resolution. Corrective actions and/or Condition Reports (CRs) were implemented to address the items.

O2.2 Unit 2 Low Pressure Safety Injection (LPSI) System Walkdown (71707)

The inspectors performed a detailed walkdown of accessible mechanical and electrical portions of the Unit 2 LPSI system, and interviewed responsible operations personnel regarding system status. The inspectors verified that the system configuration, including valve and breaker positions, was consistent with applicable system drawings and lineup procedures. The most recent surveillance records were also reviewed by the inspectors for completeness and technical specification (TS) compliance. Equipment operability, material condition, and housekeeping were acceptable. The inspectors identified no substantial concerns.

O2.3 Unit 1 Containment Isolation Lineup (71707)

The inspector observed the containment isolation lineup to verify that valves were in the correct position as required by Table 6.2-16 of the Updated Final Safety Analysis Report (UFSAR). Mechanical and electrical equipment operability and material condition were also inspected and found to be acceptable. The inspector identified no significant concerns.

O2.4 Operational Status of the Fuel Pool Cooling and Fuel Storage Systems (71707)

The inspectors performed a walkdown of both units' Fuel Pool Cooling and Fuel Storage systems. Additionally, the inspector reviewed the Updated Final Safety Analysis Report (UFSAR) for consistency and the applicable licensee's procedures. No discrepancies were noted. The inspectors noted only minor discrepancies such as small packing leaks and lighting issues which were promptly corrected by the licensee. Cleanliness of the area was adequate.

that were coming due. The licensee's procedures specify that CRs are to be resolved, and then approved by the Plant General Manager (PGM) within 30 days.

Considerable management attention was focused on any CR which was open longer than 30 days, with consistent reinforcement from senior management to the responsible department managers to ensure timely resolution of all CRs. These CRs received high level management attention especially towards the end of each month. Outstanding overdue CRs were trended on a monthly basis as part of the "President's Indicators." Since January 1998, only one or two overdue CRs were still outstanding by the end of the month, with zero for August. This was a marked improvement over 1997, and indicative of strong management commitment to ensure CRs were completed in a timely manner.

c. Conclusions

The Condition Report (CR) program for identifying and resolving plant problems remained effective. Plant personnel and management exhibited an appropriate threshold for identifying problems, initiating CRs, using root cause analysis, and assigning Event Response Teams. Considerable management attention was focused on any CR open for longer than thirty days.

O7.2 Second Quarter Windows Report (40500)

On August 25, an inspector attended a presentation of the "St. Lucie Plant Performance Windows Report" for the second quarter of 1998 by the site quality organization to responsible managers and supervisors. Each quarter, the Technical Review and Assessment group conducts an in-depth, broad-based performance assessment of the safety and quality-related activities performed by various site organizations. As part of the windows report presentation, managers or supervisors from each responsible group were allowed to comment on the report and to provide corrective action plans addressing those activities that needed improvement. The windows self-assessment performance report and presentation was well received and actively supported by the management team. Proposed corrective action plans were specific and scheduled.

O8 Miscellaneous Operations Issues (92901)

O8.1 (Closed) Violation 50-389/97-04-01: Failure To Follow The Equipment Clearance Order (ECO) Procedure. This violation (VIO) resulted from the licensee's failure to carry out their ECO procedure adequately. Three separate instances of this violation were identified and corrective actions were implemented. Subsequently, a repeat violation, VIO 50-335,389/98-06-01, was issued that identified three additional instances of failure to properly implement the ECO program. Although the inspector verified the completion of the initial corrective actions, the effectiveness of additional corrective actions to prevent recurrence will be verified as part of the review of VIO 98-06-01. This VIO is closed.

II. Maintenance

M1 Conduct of Maintenance

M1.1 Maintenance and Surveillance

a. Inspection Scope (IP 61726 , 62700 and 62707)

The resident inspectors and a regional inspector observed all or portions of the following corrective, preventive and predictive maintenance, and surveillance activities:

- Work Order (WO) 98013249 01, Quarterly Preventive Maintenance (PM) of Unit 2 Reactor Trip Switchgear Breaker TCB-7
- Work order (WO) 98013940 01, PM/Inspection of Unit 1 Instrument Air Dryer 1B
- WO 98014956 01, Monthly Functional Check of Unit 2 Safety Injection Tank Instruments (Level and Pressure)
- WO 98015092 01, Monthly Functional Check of Unit 1 Auxiliary Feedwater Actuation System (AFAS)
- WO 98015094 01, Monthly Functional Test of Unit 1 Plant Stack Exhaust Radiation Monitor RSC-26-1
- WO 98010604 01, Calibration of Unit 2 Control Room Outside Air Intake (CROAI) Radiation Monitor RIM-26-65
- WO 98014187 01, Channel Functional Test of Unit 1 Liquid Radwaste Discharge Process Monitor R6627
- Predictive Maintenance Oil Analysis of Unit 2 Emergency Diesel Generator (EDG) 2B Oil
- Predictive Maintenance Vibration Measurements and Analysis of Unit 1 Reactor Coolant Pumps and Main Turbine Generator
- Predictive Maintenance Thermography of Hot Connection on Unit 2 Vital AC Inverter
- 1-OSP-66 01, Control Element Assembly Quarterly Exercise
- WO 98014954 01, Unit 2 Loose Parts Monitor Monthly PM
- ICP 2-1400052, Engineered Safeguards Actuation System - Channel Functional Test
- WO 98012527 01, Eighteen Month PM for 1C CCW Discharge Motor Valve
- WO 98010152 01, 1A Intake Cooling Water (ICW) Pump Expansion Joint Replacement

During observation of the above in-process activities, the inspectors evaluated procedure use, assignment and performance of QC hold points, foreign material exclusion (FME) controls, measuring and test equipment (M&TE) controls, post-maintenance testing (PMT) and qualification of maintenance personnel.

b. Observations and Findings

The applicable revisions of procedures were in place and were being conscientiously followed by qualified maintenance personnel. Personnel had a questioning attitude and had procedure or WO requirements clarified before proceeding with an activity.

Maintenance supervision was closely involved with monitoring in-process maintenance work. Good interface between maintenance and operations personnel was observed. Applicable FME controls, M&TE controls, PMT requirements, and QC hold points were being accomplished in accordance with requirements. The inspectors also observed that work activities were properly documented and problems encountered during the performance of the work activities were appropriately resolved.

The inspectors found that the licensee had a detailed predictive maintenance program in place using oil analysis, vibration analysis, and thermography. The program was being accomplished in accordance with detailed instructions by knowledgeable personnel using state-of-the-art equipment. Detailed prescribed inspection routes and frequencies were outlined for each inspection method, and safety-related and other critical plant equipment was included. Review of a sample of reports issued in 1998 showed that the program was effectively identifying and trending equipment problems.

During observation of activities associated with WO 98010604 01 for calibration of CROAI Radiation Monitor RIM-26-65, the inspectors noted that the detector had failed and was replaced under a step in the WO that allowed troubleshooting and repair. The inspectors questioned whether failure of the detector, possibly a maintenance preventable functional failure, would be identified for evaluation under the maintenance rule since the maintenance rule program required review of trouble and breakdown WOs, and not PM WOs. For the failure in question, the system engineer was involved and did identify the failure for maintenance rule consideration. Since the program did not specify evaluation of failed or degraded components as possible functional failures when discovered during PMs, the licensee issued Condition Report (CR) 98-1325 to evaluate the need for program changes.

While evaluating radiation monitor activities, the inspectors noted that Unit 2 radiation monitors had been classified as maintenance rule (a)(1) status because of numerous equipment failures over a number of years. The inspectors reviewed recent expert panel meeting minutes, current goals and corrective actions, and discussed the radiation monitor problems with the system engineer. It appeared that the causes of the failures are now well understood and that appropriate goals and corrective actions established.

c. Conclusions

Corrective, preventive and predictive maintenance, and surveillance activities were performed and documented in a quality manner. Procedures were in place and being conscientiously followed by qualified personnel. The interface between maintenance and operations personnel worked well. Applicable FME controls, M&TE controls, PMT requirements, and QC hold points were being accomplished in accordance with requirements. A strong predictive maintenance program was in place and was identifying and trending equipment problems.

M3 Maintenance Procedures and Documentation

M3.1 Preventive Maintenance Program

a. Inspection Scope (62700)

The inspectors reviewed portions of the licensee's preventive maintenance program with focus on how overdue PMs are controlled.

b. Observations and Findings

The inspectors questioned the licensee relative to how overdue PMs are tracked and trended. Based on discussions with licensee personnel, a CR was issued any time a PM exceeded its grace period. Since only a few CRs had been written for overdue PMs, overdue PMs were not being specifically monitored. Further review revealed that, if a PM's due date was extended through the PM Change Request (PMCR) process, the PM was not considered overdue and a CR was not required. Therefore, the licensee's program did not provide meaningful trending of overdue PMs.

During review of PMCRs issued in 1998, the inspectors found that some PM due dates had been extended through the PMCR process. In addition, for the population of PMCRs reviewed by the inspectors (approximately 375 for 1998), the following problems were identified:

- Nine PMCRs for safety-related equipment and 24 PMCRs for non-safety-related equipment did not provide any technical justification for extending the due dates. In most cases, the only reason given on the PMCR for the extension was resources or other higher priority work. In addition, three of the nine safety-related PMCRs were not properly reviewed by engineering, i.e., one was not signed by engineering and two were signed by engineering after the fact.

- Review of the licensee's procedure for control of PMCRs, AP No. 431, Revision 17, "Preventive Maintenance Program," did not clearly explain expectations for technical justification for changing PM requirements.

The licensee immediately issued CR 98-1329 and evaluated the 33 PMCRs (nine safety-related and 24 non-safety-related) identified above to determine if the extensions could be technically justified. In all cases, extension of the PM due dates could be technically justified. Responsible personnel had made the proper determination about the extensions, but technical documentation was not provided on the PMCR forms. All of the 33 PMs were non-mandatory, i.e., not required by TS, FSAR, operating license, warranties or safety, government of other regulations.

The licensee identified the following additional corrective actions for the CR: (1) ensure that PMs are not removed from the work schedule until the PMCR is fully processed; (2) improve the PMCR process including the quality of change justifications, human factors of the PMCR form, and adequacy of the PMCR review/approval process; (3) conduct additional sampling review of adequacy of current PMCRs and PMCR justifications; (4)

evaluate the need for improvements to the PMCR tracking/database and PM aspects of PASSPORT (PM program database); and (5) evaluate the need for tracking deferred (overdue) PMs.

Subsequent to inspection of this issue, the licensee completed corrective action (3) above, additional sampling of PMCRs, and found additional examples of the type problems identified by the inspectors. However, in all additional cases identified, the PM extensions could be technically justified. In addition, a cause analysis of the PMCR problems was performed, and identified the need for programmatic improvements in the PMCR process. The programmatic improvements were in process. Review of the corrective actions for this issue will continue as part of a broader follow-up of the PMCR process under IFI 50-335,389/97-11-04 (see paragraph M8.2 below).

c. Conclusions

The licensee's program did not provide meaningful trending of overdue PMs. Recorded overdue PMs for 1998 did not include any PMs required by regulations. Weaknesses were identified in the PM change process relative to documentation of justification for extending PM due dates and proper signatures on PMCR forms.

M7 Quality Assurance in Maintenance Activities

M7.1 Quality Control in Maintenance Activities (62707 and 61726)

An inspector observed the performance of an evaluation conducted by a quality control (QC) inspector. The QC inspector observed electrical maintenance (EM) conduct an 18 month preventive maintenance (PM) task on the limitorque actuator for MV-14-2. The QC inspector appeared very knowledgeable and utilized the PSL Nuclear Assurance Quality Report to thoroughly evaluate all areas of the surveillance. Close observation and detailed questioning techniques were used by the QC inspector to determine if EM was conducting the surveillance satisfactorily.

The inspectors also reviewed a number of the "Daily Quality Summary" reports issued by the Site Quality organization. The vast majority of the quality summaries were from quality control (QC) surveillance inspections of a wide range of activities (e.g., maintenance, troubleshooting, testing, calibrations, welding, modifications, etc.), similar to the one described above. These summaries provided prompt, succinct, and insightful feedback (both positive and negative) to the respective organizations regarding their performance in the field. As appropriate, performance weaknesses were highlighted and CRs written. The inspectors concluded that the daily quality summaries were a valuable communication tool and indicative of a strong and healthy QC surveillance program.

M7.2 QC Surveillance On Control Of Overtime (62707)

Improper use of overtime (OT) has been the subject of numerous violations (e.g., VIO 97-04-02, VIO 97-11-01, and VIO 97-14-01). The licensee had implemented comprehensive corrective actions to address this problem, as documented in their

violation responses. On August 7, a licensee QC inspector identified that some of these corrective actions (e.g., use of computerized OT Tracker and OT checklist) were not being implemented by all departments as site management expected, nor as described in their written response to VIO 97-11-01. The QC findings did not involve any examples of plant personnel actually violating TS OT limits. To address these findings, CR #98-1184 was initiated. On August 13, an Information Bulletin was issued to all plant personnel re-emphasizing plant policies regarding administrative controls and documentation requirements for OT involving safety-related activities. An inspector reviewed the bulletin, and documentation associated with completed Plant Manager Action Items of the original violation response, and met with responsible managers. The inspector concluded that licensee management took the QC findings very seriously and promptly initiated corrective actions to reinforce plant policies for tracking and controlling OT.

M8 Miscellaneous Maintenance Issues (92902)

M8.1 (Closed) Violation 50-335,389/97-11-03; Missed QC Hold Points On Ultimate Heat Sink (UHS) Valve Repair. The licensee's letter of response was dated December 10, 1997, and met the requirements of 10 CFR 2.201. The inspectors verified that the corrective actions as stated in the letter of response had been completed. This item is closed.

M8.2 (Open) Inspection Follow-up Item (IFI) 50-335,389/97-11-04; Follow-up To PM Program Changes. This IFI was opened to track the licensee's updating of the PM program and to evaluate the reasons for the high number of PM Change Requests (PMCRs). The licensee's PM Basis Project was in progress. The objective of the PM Basis Project was to review and document the technical bases for a larger number of equipment PMs for each unit to determine if PM frequencies can be reduced, canceled if no longer needed or justified. During the current inspection, the inspectors reviewed the PM change process and the status of the project. To date, the Unit 2 targeted PMs have been reviewed and PMCRs issued and approved with a substantial savings in man-hours for PMs. For Unit 1, 75 percent of the targeted Daily (non-outage) and 36 percent of the targeted outage PMs have been reviewed. This IFI remains open pending further review of the PM change process and corrective actions for the problems identified in paragraph M3.1 above relative to justification for extensions of PM due dates.

III. Engineering

E1 Conduct of Engineering

E1.1 Review of Unit 2 Emergency Diesel Generator Governor Modification (37551)

The inspectors reviewed Plant Change/Modification (PC/M) 96-151, Replacement of Emergency Diesel Generator (EDG) 2A and 2B Woodward Electrical Load Controllers. The licensee planned to implement the PC/M on the 2A EDG during the upcoming Unit 2 outage. The PC/M was planned well in advance and materials required to perform the upgrade had already been received. The package was detailed and complete, including the reason for the modification, installation instructions, and post-installation testing

requirements. The inspector observed that the package had been properly reviewed and approved.

E2 Engineering Support of Facilities and Equipment

E2.1 Unit 1 Containment Vacuum Relief Valve Problem

a. Inspection Scope (37551) (93702)

On September 5, a licensed operator noted that one of the Unit 1 containment vacuum relief valves, FCV-25-8, was open with positive pressure in the containment. The inspector responded to the site and reviewed the licensee's actions.

b. Observation and Findings

Technical Specification (TS) 3.6.5.1 requires the containment vessel to annulus vacuum relief valves to be operable. If either valve becomes inoperable, the TS requires the licensee to restore the valve to operable within four hours or be in hot standby within the next six hours and in cold shutdown within the following 30 hours. The licensee identified that the valve was open at approximately 10:33 am. Instrument and Control (I&C) personnel were called in to troubleshoot and correct the problem. At approximately 1:15 pm, the inspector was informed of the problem and responded to the site.

At 2:13 pm, the licensee declared the valve back in service based on I&C troubleshooting and an engineering evaluation. I&C tracked the problem to a failed contact on a redundant transmitter for the valve. Based on a previous engineering evaluation (Condition Report 98-1034), the licensee had already determined that the valve was operable with one of the redundant transmitters out of service. Site Engineering also reviewed the troubleshooting performed by I&C and determined that their work did not affect the operability of the valve or redundant transmitter.

The inspector reviewed the engineering disposition and the I&C work and concluded that the licensee's evaluations were appropriate. The operability assessment was clear and detailed. Additionally, Site Engineering's support to the plant was timely.

c. Conclusions

The operability assessment of a containment vacuum relief valve issue was detailed and technically sound. The assessment was timely and an unnecessary shutdown was appropriately averted.

E4 Engineering Staff Knowledge and Performance

E4.1 Maintenance Rule Implementation

a. Inspection Scope (37551) (62707)

The inspector reviewed two systems monitored under the maintenance rule to verify compliance with 10 CFR 50.65.

b. Observations and Findings

The radiation monitoring system had been classified as (a)(1) for over a year. The inspector verified that the goals and monitoring supported increased system performance. Although the plan to return the system to a high level of reliability was planned to take several years, it was well thought out and logical.

Recently, the Unit 1 instrument air system was appropriately added to the (a)(1) category due to multiple failures of the 1C Instrument Air Compressor. The inspector spoke with the system engineer about the system goals and attended the Expert Panel meeting in which the monitoring was to be established. The panel rejected the proposed monitoring plan as not extensive enough to ensure reliable operation. Also, the panel did not fully accept the root cause evaluation because it did not identify any specific failure mechanism or corrective actions for the 1C compressor. Even though all four compressors are identical, the panel asked the System Engineer to review again any possible difference between the compressors that could be causing the 1C to fail more often than the others.

c. Conclusions

The licensee was adequately setting goals and monitoring criteria as required by the Maintenance Rule. Additionally, monitoring of the instrument air system was appropriately identified as needing to be upgraded to (a)(1) requirements.

E8 Miscellaneous Engineering Issues (92903)

E8.1 (Closed) Violation 50-335/EA-98-009/01012: Failure To Incorporate Revised Design Information Into Setpoint Calibration Procedures.

(Closed) Violation 50-335/EA-98-009/01022: Failure To Meet TS 3.3.2.1 And 3.5.2 Due To Incorrect Setpoint For The Containment Sump Recirculation Actuation Bistable.

(Closed) Licensee Event Report 50-335/97-011-00: Non-conservative Recirculation Actuation Signal Setpoint Resulted In Operation Prohibited By TSs.

On December 2, 1997, the licensee submitted LER 50-335/97-011 describing their discovery that the Unit 1 refueling water tank (RWT) recirculation actuation signal (RAS) setpoint had been improperly changed in 1993. This change inadvertently reduced the RAS setpoint by 12 inches below the TS required setpoint of 48 inches above the bottom of the RWT. With the RAS setpoint at 36 inches air entrainment would have occurred under certain design basis accident conditions potentially disabling emergency core cooling systems (ECCS). The NRC conducted a special inspection of this event as documented in IR 50-335/97-16 dated January 23, 1998. During this inspection, the safety implications and risk significance were evaluated, the licensee's root cause determinations were reviewed and the short-term corrective actions were verified. On

February 13, 1998, a Predecisional Enforcement Conference was held with the licensee to discuss the two apparent violations identified by IR 50-335/97-16. The NRC issued two violations that represented a Severity Level II problem, with civil penalty, on March 25, 1998. By letter dated April 20, 1998, the licensee responded to the NRC violations by reiterating many of the corrective actions previously mentioned in LER 50-335/97-011, and by committing to additional broad-based reviews of other programs as discussed at the enforcement conference.

The inspectors reviewed the licensee's violation response and LER 50-335/97-011, and verified the corrective actions described therein (especially those not previously verified by IR 50-335/97-16). Based on interviews with responsible personnel, and review of completed Plant Manager Action Item Corrective Action Forms, selected procedure changes, training documentation, and selected engineering reviews and program evaluations, the inspectors concluded that the corrective actions were very comprehensive, thorough and implemented consistent with commitments made by the licensee. These violations and LER are considered closed.

E8.2 (Closed) Violation 50-335,389/97-10-03; NRC Identified UFSAR Inaccuracies.

a. Inspection Scope (92903)

The inspectors reviewed the licensee's corrective actions for the subject violation.

b. Observation and Findings

The subject violation described 16 NRC identified Updated Final Safety Analysis Report (UFSAR) discrepancies that would not have been identified by the licensee's UFSAR review team. The inspector reviewed the corrective actions and found that the corrective actions have been completed or were scheduled to be completed with the next Unit 2 UFSAR update on all but one item.

This item involved CO_2 fire extinguishers in the non-vital switchgear rooms for Units 1 and 2 that were described as being dry chemical extinguighers in the UFSAR. In the licensee's original VIO response, they stated that the fire extinguishers were replaced with the dry chemical type to match their UFSAR description. However, when the licensee attempted to reverify that all corrective actions were completed during this report period, they discovered the fire extinguishers were again the wrong type. A review of records and interview with personnel suggested that the extinguishers were changed back to CO_2 shortly after the dry chemical extinguishers were put in place due to a misinterpretation of an Engineering review. Once the licensee discovered the improper switch, the UFSAR discrepancy was promptly corrected again by reinstalling the dry chemical extinguishers. The inspectors verified that the plant matched the UFSAR description on September 18. The licensee issued CR 98-1404 to identify any further corrective actions (e.g., revise UFSAR). This VIO is closed.

c. Conclusions

The licensee adequately implemented all corrective actions for the subject violation, except for one minor instance that was promptly corrected.

IV. Plant Support

R2 Status of Radiation Protection and Chemistry Facilities and Equipment

R2.1 Radiologically Controlled Area, Units 1 and 2 (71750)

Tours of the Unit 1 and 2 radiological controlled area (RCA), and primary and secondary chemistry facilities, were conducted by the inspectors. In general, the RCA and chemistry facilities were maintained clean and in order. Plant personnel observed working in the RCA demonstrated appropriate knowledge and application of radiological control practices. Health physics technicians provided positive control and support of work activities in the RCA.

R4 Staff Knowledge and Performance in Radiation Protection and Chemistry

R4.1 Unit 2 Post-Accident Sample System (71750)

a. Inspection Scope

On August 31, an inspector observed two chemists draw and analyze a primary water sample from the Unit 2 reactor coolant system (RCS) via the post-accident sampling system (PASS).

b. Observations and Findings

The inspector observed the chemists draw a sample using chemistry procedure 2-COP-07.02, Revision 1, "Performing An Operability Test On the Unit 2 Post Accident Sampling System." The chemists' performance was also monitored and evaluated by their supervisor as part of an annual requalification. Overall, the chemists did well as demonstrated by their familiarity with the system, their ability to closely follow the procedure and the consistency of their analytical results when compared to the daily sample results. One complication occurred during the Unit 2 PASS sample and analysis.

While the chemists were performing step 32 of procedure 2-COP-07.02, they were surprised and distracted when the PASS "high pressure" alarm actuated. By the time the alarm cleared, the depressurized liquid sample vessel overfilled with demineralized water. The alarm was caused by a sample dilution isolation valve that was known to leak by its seat. However, despite overfilling the sample vessel, the chemists were experienced enough to calculate the additional dilution and adjust their analysis accordingly. The inspector expressed concern to the chemistry supervisor that until the leaking valve was fixed, future chemists would run into the same problem operating the Unit 2 PASS. The supervisor acknowledged that this operational problem with PASS had been recognized before, but nothing had been done except to write a PWO (for which necessary repair parts were not expected until sometime in October). In response to the inspector's concern, the supervisor issued a temporary change (TC) to procedure 2-COP-07.02 that was reviewed by the inspector.

c. Conclusions

Chemistry technicians performed well in use of the Unit 2 post-accident sampling system as demonstrated by their familiarity with the system, close adherence to applicable procedures and the consistency of their results compared to the daily sample. The sampling was unnecessarily complicated by a known equipment deficiency that had not been addressed in the procedure.

R4.2 Staff Knowledge and Performance of Chemistry Sampling Program

a. Inspection Scope (71750)

The inspectors observed plant chemistry technicians perform the following routine samples and analyses:

- Daily secondary system (Units 1 & 2)
- Daily primary system (Unit 1)
- Waste Monitor Tank (Unit 1)
- Boric Acid Make-up Tank (Unit 2)

b. Observations and Findings

The inspectors observed chemistry technicians perform the various samples in accordance with applicable plant procedures. The technicians used and adhered to procedures in accordance with Chemistry Policy #4, "Chemistry Procedures/Guidelines That Require Having Procedure "In Hand"."

The knowledge level of the chemistry technicians was considered adequate for accomplishing required sampling and analysis. The technicians maintained a good questioning attitude as evidenced by their method of comparing sample analysis results to current trend data to validate the results obtained. For example, during the primary and secondary system sample analyses, both technicians obtained unexpected results. The technicians carefully repeated their analyses. The second analysis obtained by the primary system technician correlated to expected trends, so a third sample was completed to validate the correct result. The different result obtained by the primary system technician was caused by an improper titration due to equipment problems. On the other hand, the repeat analysis completed by the secondary system technician produced results that continued to be abnormal. The secondary system technician conducted an investigation and found that a filter train associated with S/G Blowdown was exhausted. This explained the system change and prompted the technician to initiate corrective actions.

c. Conclusions

Chemistry technicians demonstrated good sampling and analytical techniques as evidenced by procedural adherence, knowledge level, and a questioning attitude toward unexpected results.

P1 Conduct of Emergency Preparedness (EP) Activities

P1.1 Off-Hours, Unannounced Emergency Drill (71750)

On August 17, inspectors observed an infrequently performed unannounced, off-hours drill of the site Radiological Emergency Plan (REP). The principal purpose of the drill was to verify that emergency response facilities (ERFs) could be adequately staffed in a timely manner by the emergency response organization (ERO). The drill was initiated at 3:50 a.m. by the declaration of an Alert and subsequent call-out of all ERO personnel. The inspectors observed ERO personnel respond to the Technical Support Center (TSC). Minimum staffing of critical ERO personnel was established in about 75 minutes, which was consistent with the site goal and REP. The drill was terminated shortly after minimum staffing was achieved and communications between ERFs were established and exercised. This particular drill did not involve any participation by state or local EP organizations. The inspectors concluded that the licensee had successfully demonstrated its ability to adequately staff all of the ERFs in a timely manner during off-hours.

P2 Status of EP Facilities, Equipment, and Resources

P2.1 Emergency Offsite Facility (71750)

On September 3, the inspectors toured the Emergency Operations facility (EOF) with the aid of the site EP coordinator. The EOF was an expansive, stand-alone, dedicated facility with ample space, equipment, and material to accommodate required REP staffing and activities. The facility appeared to be well maintained and physically ready for use.

P2.2 Operations Support Center

a. Inspection Scope (82701)

The inspectors examined the licensee's Operational Support Center (OSC) and its proximity to the various storage locations of tools, equipment, and spare parts on the plant site to evaluate the accessibility of such items during a response to an emergency.

b. Observations and Findings

Licensee representatives informed the inspectors that numerous craft personnel have requested the provision of emergency tool kits at the OSC, but that St. Lucie management determined that such an arrangement is not necessary to provide for an adequate emergency response capability. To evaluate this approach, the inspectors toured the OSC (located in the South Service Building) and walked the typical routes from the OSC to the various storage locations of tools, equipment, and spare parts on the plant site. The one-way walking travel times (at a moderate pace) between the OSC and the subject locations were measured as follows: North Service Building (Electrical Shop, Instrument and Control [I&C] Shop), 3.5 to 5.0 minutes (through and around the

Turbine Building, respectively); Tool Warehouse (F-4 Building), 1.5 minutes; Stores Warehouse (G-2 Building), 4.0 minutes; and Mechanical Maintenance Shop, 2.5 minutes. The primary locations for obtaining tools and equipment were the North Service Building and the Tool Warehouse. From these locations, personnel dispatched from the OSC during an emergency response would be approximately the same distance from their in-plant destination as if they had departed from the OSC with tools and equipment already in hand, so that only the listed one-way travel times would be added in determining the preparatory period. Travel to the Stores Warehouse or Mechanical Maintenance Shop would be away from the plant, essentially adding the entire round-trip time before workers would be ready to enter the plant. If a radioactive release were in progress while OSC personnel were required to access their tools and equipment, additional exposure would be incurred, but the few extra minutes needed for such retrieval would not add significantly to that exposure.

The inspectors reviewed a training guide (handout) provided during OSC classroom training which included discussion regarding the probable need, during an emergency response, to obtain tools and equipment from the various locations as listed above ("OSC/Re-Entry Team Training", Emergency Plan Training 3611020, Revision 5). The inspectors also noted that most nuclear power plant sites in NRC Region II have OSC arrangements similar to those discussed here.

c. Conclusions

The location of the OSC in relation to the various storage locations of tools, equipment, and spare parts on the plant site was satisfactory.

P5 Staff Training and Qualification in EP

P5.1 Training of Emergency Response Personnel

a. Inspection Scope (82701)

The inspectors reviewed the training program for the ERO, with a focus on whether emergency response personnel were being provided adequate opportunities for participating in drills and exercises.

b. Observations and Findings

As part of the ERO training program upgrade begun in 1996, the licensee has been conducting quarterly integrated response drills since January 1997. The licensee's commitment to this drill program was documented in EPIP-12, "Maintaining Emergency Preparedness - Radiological Emergency Plan Training", Revision 1. An effort was being made by the EP staff to provide drill experience to as many ERO personnel as possible through the rotation of players from one drill to the next. A "Note" in Section 5.2 of EPIP-12 stated, "It is the intent of the drill and exercise program that each ERO member have an opportunity to function in his/her position annually."

The inspectors reviewed documentation of drills and exercises conducted during the previous 12 months. These included quarterly drills on October 3, 1997, March 18, May 8, and August 17, 1998, and the biennial exercise on February 25, 1998. The documentation package for each of these was thorough, and included detailed objectives, listings of players and controllers (by facility and position), critique items, performance issues, and recommendations for improved performance. Evaluation of training data indicated that virtually all key ERO personnel had played in a drill or exercise during the previous 12 months, as well as the vast majority of the entire ERO (including the various crafts personnel who would staff the OSC).

c. Conclusions

The licensee was conducting quarterly integrated drills to enhance the quality of ERO training, and was thereby providing annual drill/exercise experience for most ERO personnel, in accordance with stated training objectives.

P6 EP Organization and Administration

P6.1 Staffing of ERO Positions

a. Inspection Scope (82701)

The inspectors reviewed the licensee's arrangements for ensuring adequate coverage for ERO positions, particularly during holiday and vacation periods.

b. Observations and Findings

The licensee implemented a weekly "Availability Roster" in October 1996 to ensure continuous coverage for key ERO positions. Review of these rosters for the previous 12 months disclosed that all roster positions included in September 1997 were still maintained on the roster in September 1998, and 3 nonresponding communicator positions had been added.

The inspectors also reviewed coverage for all other positions not listed on the Availability Roster. Emergency response staffing requirements for the Health Physics (HP), I&C, Mechanical, and Electrical departments were reviewed against normal staffing levels. With the exception of HP, normal minimum on-shift staffing exceeded ERO staffing needs. For emergency response staffing, 12 of approximately 30 HP personnel would be needed per shift. An off-hour drill on August 17, 1998 disclosed no performance problems with regard to HP staffing.

c. Conclusions

The licensee was adequately maintaining coverage for ERO positions at all times.

P6.2 Security Badge Availability During Emergency Conditions

a. Inspection Scope (82701)

The inspectors reviewed the licensee's arrangements for providing access to individuals who may arrive at the plant without their security badges after being called to respond to an emergency.

b. Observations and Findings

Because of the "take-home" badging system used at the St. Lucie Plant, there existed the possibility that a person could arrive at the plant in response to an emergency call-out without his/her security badge. The issue was raised following an unannounced ERO call-out drill on August 17, 1998.

During routine operations, the licensee's policy is that an individual arriving at the plant without his/her badge must retrieve it. During an emergency response, however, this policy would be suspended to expedite timely staffing of ERO positions. The inspectors reviewed the two basic methods for managing this situation: (1) process the individual as a visitor, or (2) create a new badge. The inspectors reviewed the specifics of both methods, and observed an impromptu drill in which a replacement badge was requested, fabricated, and used to gain entry to the Protected Area within a period of six minutes. These arrangements were found to be satisfactory.

To enhance ERO awareness of this matter, the licensee issued an instructional memorandum to ERO personnel on September 10, 1998, and added a "Weekly Reminder" to the Availability Roster. Both of these communiqués explained that responding to the site for an emergency or drill should not be delayed by badge retrieval.

c. Conclusions

The Security Department had made adequate arrangements for providing timely access to individuals who may arrive at the plant without their security badges after being called in to respond to an emergency, and ERO personnel had been appropriately informed of these arrangements.

P6.3 Evacuation of Plant Personnel and Access for Incoming Staff

a. Inspection Scope (82701)

The inspectors reviewed the traffic control arrangements with respect to (1) a site evacuation of nonessential employees during an emergency, and (2) the ability of incoming ERO personnel to reach the plant in response to an emergency call-out.

b. Observations and Findings

The St. Lucie Plant is located on Hutchinson Island, which is accessible to motor vehicles from the mainland by three bridges. The inspectors discussed State and local

evacuation plans for Hutchinson Island with licensee representatives. These plans specified that at least one lane on each bridge would be maintained open for incoming traffic, allowing access to the island even while an evacuation was in progress. Such inbound traffic could include ambulance, fire, and police vehicles, as well as members of the ERO traveling in their personal vehicles to the plant for the initial emergency response or relief shifts. The inspectors confirmed this traffic control plan in a telephone discussion with the Assistant Emergency Manager for St. Lucie County. In the event that the island could not be reached by any of the bridges (a possibility following a severe hurricane), licensee representatives stated that two corporate helicopters were available (with a minimum lead time of two hours) to transport relief personnel to and from the plant site. Helicopters were used in this manner at the licensee's Turkey Point Plant in the aftermath of Hurricane Andrew in 1992.

Evacuation of nonessential plant personnel during an emergency most likely would either precede, or be concurrent with, an evacuation of the public, if that is ordered. During an evacuation, licensee personnel should not be at a disadvantage relative to members of the public, irrespective of the timing of the evacuation order.

c. Conclusions

Traffic control arrangements should not present an impediment to either a site evacuation of nonessential employees during an emergency, or the ability of incoming ERO personnel to reach the plant in response to an emergency call-out.

P7 Quality Assurance in EP Activities

P7.1 10 CFR 50.54(t) Audit of Emergency Preparedness Program

a. Inspection Scope (82701)

The inspectors reviewed this area to assess the quality of the required annual audit of the emergency preparedness program, and to verify that the audit met the requirements of 10 CFR 50.54(t).

b. Observations and Findings

The inspectors reviewed documentation associated with the following EP program audit, QSL-EP-98-03, conducted by the licensee's Quality Assurance (QA) group from March 16 through May 18, 1998.

This audit was judged to be thorough and independent, and the nature of the identified issues indicated inclusive understanding of emergency preparedness by the auditors. Three strengths and three weaknesses were identified. The audit utilized five auditors, incorporated the application of various performance-based criteria, and included an extensive evaluation of the March 1998 biennial exercise. The QA group also conducted quarterly mini-audits as part of the "Performance Windows" program.

c. Conclusions

The 1998 EP program audit fully satisfied the 10 CFR 50.54(t) requirement for an annual independent audit of the EP program.

S1 Conduct of Security and Safeguards Activities

S1.1 Routine Observations of Plant Security Measures (71750)

During routine inspection activities, inspectors verified that portions of site security program plans were being properly implemented. This was evidenced by: proper display of picture badges and use of the biometrics system by plant personnel; appropriate key carding of vital area doors; adequate stationing and tours in the protected area by security personnel; and proper searching of packages/personnel at the north and east security buildings, and vehicle gates. In all observed aspects, security personnel performed their responsibilities in a deliberate and conscientious manner consistent with site security plan requirements.

S2 Status of Security Facilities and Equipment

S2.1 Security Facilities and Equipment Tours (71750)

The inspectors conducted tours of the central alarm station (CAS), secondary alarm station (SAS), vital area doors, and significant portions of the protected area (PA) boundary. Security equipment (e.g., computer alarm system, video cameras, communications) in the CAS and SAS appeared to be functioning well. Both areas were properly manned, and relieved appropriately. Vital area doors operated properly, and PA physical boundaries and detection systems were in good condition. Overall, security facilities and equipment observed by the inspectors were operating well and in proper condition to ensure physical protection of the plant.

S6 Security Organization and Administration

S6.1 Security Force Transition to New Contractor (71750)

On August 31, the licensee switched their principal contractor for the onsite security force. The actual transition went very smoothly with no apparent degradation of security program effectiveness. The onsite turnover process had begun in earnest approximately a month earlier by the new contractor's management team, which was closely monitored by the site Security Manager. Numerous security personnel and supervisory changes were made as a consequence. Inspectors met with the site Security Manager and contractor project manager on several occasions to discuss the details and timing of the transition. The transfer was accomplished without incident due to considerable preparation, and close management attention and involvement throughout.

F1 Control of Fire Protection Activities

F1.1 Control of Combustible Materials (71750) (92904)

During routine inspections, an NRC inspector identified two instances involving poor attention regarding combustible material controls, as described below:

On August 26, while performing a tour of the Unit 1 cable spreading room, the inspector noticed that some transient combustibles (e.g., cardboard boxes, cables, hoses, trash) were being stored in the spare battery room contrary to posted instructions and provisions of Administrative Procedure No. 00100434, Revision 36, Section 8.2, "Control of Combustibles." The inspector notified the control room; CR 98-1281 was written, and the materials were promptly removed. Plant Fire Protection personnel subsequently demonstrated to the inspector that the combustible materials discovered improperly stored in the spare battery room did not exceed the transient combustible loading limits assumed by the UFSAR Fire Hazards Analysis.

On September 16, while observing maintenance activities on the 1A ICW pump, an inspector noticed that the Hot Work Permit written and approved for the job failed to specify that a fire watch would be required due to "combustibles within a 35 foot radius [that] cannot be removed or protected". The inspector noticed that a considerable quantity of combustible materials resided within 35 feet of the area that would involve open flame work and informed the maintenance foreman and supervisor. After conferring with site Fire Protection personnel, the maintenance foremen revised the Hot Work Permit accordingly, before the open flame work actually began . Administrative Procedure No. 00100434, Revision 36, Section 8.3, "Open Flame Work and Welding," requires the responsible foreman or supervisor to determine the appropriate fire protection requirements and approve the Hot Work Permit.

Although the safety significance of these specific instances was low, they constitute additional examples of poor attention and/or control of combustible materials similar to the unresolved item (URI) described in Section F1.1 of IR 50-335, 389/98-201. The two instances described above are identified as URI 50-335/98-09-02, Control Of Combustible Materials, pending additional NRC review of the circumstances, regulatory requirements, and underlying causal factors.

V. Management Meetings and Other Areas

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on September 21, 1998. Interim exit meetings were held on September 4 and September 17, 1998 to discuss the findings of Region based inspection. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

M. Allen. Operations Manager
C. Bible, Site Engineering Manager
G. Bird, Security Manager
W. Bladow, Site Quality Manager
G. Casto, Emergency Preparedness Supervisor
D. Fadden, Training Manager
J. Holt, Maintenance Manager
H. Jacobs, Mechanical Maintenance Supervisor
W. Korte, Electrical Maintenance Supervisor
C. Ladd, Operations Supervisor
K. Mohindroo, Plant Engineering Manager
T. Patterson, System Engineering Manager
A. Pawley, I&C Maintenance Supervisor
A. Scales, Assistant Operations Supervisor
B. Sculthorpe, Predictive Maintenance Supervisor
A. Stall, St. Lucie Plant Vice President
E. Weinkam, Licensing Manager
C. Wood, Work Control Manager
R. West, St. Lucie Plant General Manager

Other licensee employees contacted included office, operations, engineering, maintenance, chemistry/radiation, and corporate personnel.

NRC

W. Gleaves, Project Manager, Office Of Nuclear Reactor Regulation

INSPECTION PROCEDURES (IP) USED

IP 37551:	Onsite Engineering
IP 40500:	Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems
IP 60705:	Preparation For Refueling
IP 61726:	Surveillance Observations
IP 62700:	Maintenance Program Implementation
IP 62707:	Maintenance Observations
IP 71707:	Plant Operations
IP 71750:	Plant Support Activities
IP 82701:	Operational Status of the Emergency Preparedness Program
IP 92901:	Followup - Plant Operations
IP 92902:	Followup - Maintenance
IP 92903:	Followup - Engineering
IP 92904	Followup - Plant Support

IP 93702: Prompt Onsite Response To Events At Operating Power Reactors

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-335,389/98-09-01	NCV	Failure To Properly Clear An Equipment Clearance Order (Section O1.4)
50-335/98-09-02	URI	Control Of Combustible Materials (Section F1.1)

Closed

50-389/97-04-01	VIO	Failure To Follow The Equipment Clearance Order Procedure (Section O8.1)
50-335,389/97-10-03	VIO	NRC Identified UFSAR Inaccuracies (Section E8.2)
50-335/EA-98-009/01012	VIO	Failure To Incorporate Revised Design Information Into Setpoint Calibration Procedures (Section E8.1)
50-335/EA-98-009/01022	VIO	Failure To Meet TS 3.3.2.1 And 3.5.2 Due To Incorrect Setpoint For The Containment Sump Recirculation Actuation Bistable (Section E8.1)
50-335/97-011-00	LER	Non-conservative Recirculation Actuation Signal Setpoint Resulted In Operation Prohibited By TSs (Section E8.1)
50-335,389/97-11-03	VIO	Missed QC Hold points On UHS Valve Repair (Section M8.1)
50-335,389/98-09-01	NCV	Failure To Properly Clear An Equipment Clearance Order (Section O1.4)

Discussed

50-335,389/97-11-04	IFI	Follow-up to PM Program Changes (Section M1.2, M8.2)