



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
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ATLANTA, GEORGIA 30303-8931

January 21, 2003

Mr. Dale E. Young, Vice President  
Crystal River Nuclear Plant (NA1B)  
ATTN: Supervisor, Licensing &  
Regulatory Programs  
15760 West Power Line Street  
Crystal River, FL 34428-6708

SUBJECT: CRYSTAL RIVER UNIT 3 - NRC INTEGRATED INSPECTION REPORT  
50-302/02-04

Dear Mr. Young:

On January 4, 2003, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Crystal River Unit 3. The enclosed integrated inspection report documents the inspection findings, which were discussed on January 13, 2003, with you and members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. In addition, a special inspection of your strike contingency plan and related preparations was conducted. The results of this special inspection are included in the enclosed report.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

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

Docket No.: 50-302  
License No.: DPR-72

Enclosure: (See page 2)

FPC

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Enclosure: Inspection Report 50-302/02-04  
w/Attachment

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 50-302

License No.: DPR-72

Report No.: 50-302/02-04

Licensee: Florida Power Corporation

Facility: Crystal River Unit 3

Location: 15760 West Power Line Street  
Crystal River, FL 34428-6708

Dates: September 29, 2002 - January 4, 2003

Inspectors: S. Stewart, Senior Resident Inspector  
S. Sanchez, Resident Inspector  
R. Chou, Reactor Inspector (Section 1R07)  
J. Wallo, Senior Security Inspector (Section 4OA5.2)  
K. Davis, Security Inspector (Section 4OA5.2)

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

Enclosure

## SUMMARY OF FINDINGS

IR 05000302/2002-004; Florida Power Corporation; 09/29/2002 - 01/04/2003; Crystal River Unit 3; routine integrated report.

The report covered a three month period of inspection by resident inspectors and announced inspections by a region based reactor inspector and two regional security inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee Identified Violations

None

## REPORT DETAILS

### Summary of Plant Status

Crystal River 3 automatically tripped from full power on November 7, 2002, when a component malfunction in the switchyard caused a main turbine and reactor trip. The unit was returned to power operation on November 9, and operated at or near full rated thermal power throughout the remainder of the inspection period.

#### 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity [Reactor-R], Emergency Preparedness [EP]

#### 1R01 Adverse Weather Protection

##### a. Inspection Scope

The inspectors reviewed the licensee's plans for mitigating cold weather to assure that vital systems and components were protected from freezing in accordance with licensee plant Administrative Instruction AI-513, Seasonal Weather Preparations. During cold weather periods, the inspectors walked down portions of the emergency feedwater pump building, emergency feedwater tank room, and the boric acid storage tank area to verify the cold weather mitigation strategies were implemented. These systems were selected because their safety related functions could be affected by adverse weather. Nuclear condition reports were reviewed to verify that the licensee was identifying and correcting cold weather protection issues.

##### b. Findings

No findings of significance were identified.

#### 1R04 Equipment Alignment

##### a. Inspection Scope

The inspectors performed three partial system walkdowns during this inspection period. The inspectors reviewed the alignment of the selected risk-significant systems to evaluate the readiness of the redundant trains while one train was out of service for maintenance. The inspectors checked switch and valve positions using the alignments specified in the listed operating procedures and checked electrical power lined up to critical components. The inspectors reviewed applicable sections of the Crystal River 3 Final Safety Analysis Report to obtain design and operating requirements. Nuclear condition reports were reviewed to verify that the licensee was identifying and correcting component alignment issues. The specific system walkdowns were:

- Control Complex Chiller CHHE-1B using operating procedure OP-409, Plant Ventilation System, when Chiller CHHE-1A was out of service on October 3, 2002, for refurbishment

- Emergency Feedwater Pump EFP-2 using operating procedure OP-450, Emergency Feedwater System, when EFP-3 was out of service on October 16, 2002, for preventive maintenance alignment checks per Work Order 287339 and bearing oil flush per Work Order 294201
- Emergency Diesel Generator EDG-1B using operating procedure, OP-707, Operation of the Engineered Safeguards Emergency Diesel Generators, when EDG-1A was out of service on December 31, 2002, for repair of fuel line leak per Work Order 77792

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors walked down eight risk-significant plant areas to verify that control of transient combustibles and ignition sources were consistent with the licensee's Fire Protection Plan and 10 CFR Part 50, Appendix R. The inspectors also evaluated the material condition, operational lineup, and operational effectiveness of fire protection systems and assessed material condition of fire barriers used to contain fire damage. The inspections were completed using the standards of the Crystal River Fire Protection Plan; 10 CFR Part 50, Appendix R; the Florida Power Corporation Analysis of Safe Shutdown Equipment; and the Final Safety Analysis Report. The inspectors reviewed sections of OP-880, Fire Service System, and checked performance of SP-802, Fire Hose Hydrostatic Test, and SP-800, Monthly Fire Extinguisher Inspection, to monitor the operational condition of fire protection equipment. When applicable, the inspectors checked that compensatory measures for fire system problems were implemented. The inspectors observed performance of fire alarm checks done in accordance with surveillance procedure SP-323, Evacuation and Fire Alarm Demonstration. The areas receiving specific fire protection walkdowns were:

- 4160 Volt Engineering Safeguards Switchgear Area
- B Decay Heat Pump and Building Spray Pump Area
- 480 Volt Engineering Safeguards Switchgear Area
- Emergency Feedwater Initiation and Controls Area
- Main Control Room Area
- 169 Foot Control Complex Ventilation Area
- Emergency Feedwater Pump EFP-3 Building
- Fire Pump Building

b. Findings

No findings of significance were identified.

## 1R06 Flood Protection Measures

### a. Inspection Scope

The inspectors walked down the emergency feedwater pump 3 building to ensure that flood protection measures were in accordance with specifications described in the Final Safety Analysis Report. Specific attributes that were checked included sealing of penetrations below the design flood line, operability of watertight doors, and the operability of the building sump pump and level alarm. The inspectors verified that minor deficiencies involving watertight seals and other flood protection issues were documented in the licensee's corrective action program and corrected.

### b. Findings

No findings of significance were identified.

## 1R07 Heat Sink Performance

### Biennial Review

### a. Inspection Scope

The inspectors selected four risk important heat exchangers or coolers and associated components to inspect: Service Water Heat Exchanger (SWHE)-1A, Decay Heat Exchanger (DCHE)-1B, Nuclear Service Raw Water Pump Cooler (NSRWPC)-2A, and Decay Heat Raw Water Pump Cooler (DHRWPC)-3B. The inspectors also inspected Raw Water Valves (RWV) 40 and 41. The inspectors used accepted industry standards (Electric Power Research Institute Service Water Heat Exchanger Testing Guidelines, TR-107397) or equivalent (NRC Generic Letter 89-13, Service Water System Problems Affecting Safety-Related Equipment) for guidelines.

The inspectors reviewed documents listed at the end of the inspection report associated with the selected heat exchangers and components to verify that testing, inspection, maintenance, and chemical treatments were adequate to ensure proper heat transfer performance.

The inspectors observed the chemical treatment application at the intake and outlet areas for clam control. The inspectors walked down and examined the intake structures and heat exchangers inside of sea water room.

### b. Findings

No findings of significance were identified.



1R11 Licensed Operator Requalificationa. Inspection Scope

The inspectors observed two licensed operator annual operating tests performed on the plant simulator to verify that the examination was consistent with 10 CFR 55 requirements and industry guidelines. The inspectors checked that licensee evaluators properly implemented 10 CFR 55.59 requirements. During the observed sessions, the inspectors checked the crew's abilities to diagnose plant problems, perform abnormal and emergency actions, and make emergency classifications and notifications. The simulated emergency operations were prescribed in licensee Evaluated Exercise SES-08, which included a reactor trip, excessive heat transfer to a once-through-steam generator, then loss of subcooling margin due to a loss of coolant accident. Simulator fidelity with the operating control board was also checked.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectivenessa. Inspection Scope

The inspectors reviewed two planned maintenance activities listed below to evaluate the licensee's implementation of the maintenance rule (10CFR50.65). The inspectors checked that licensee personnel monitored unavailability of equipment important to safety and trended key performance parameters. For the equipment issue described in the work order (WO) listed below, the inspectors reviewed the licensee's implementation of the Maintenance Rule (10CFR50.65) with respect to the characterization of failures, the appropriateness of the associated a(1) or a(2) classifications, and the appropriateness of either the associated a(2) performance criteria or the associated a(1) goals and corrective actions. The inspectors checked if the licensee maintained safety functions when equipment important to safety was out of service for maintenance. The inspectors also periodically reviewed the licensee's implementation of 10 CFR 50, Appendix B and technical specification requirements regarding safety system problems. The inspectors routinely checked that the licensee promptly entered problems with plant equipment into the corrective action program or the corrective maintenance program. The inspectors checked that the licensee monitored work practices and when appropriate, documented work problems in the corrective action program.

- Replace Emergency Diesel Generator EGDG-1A, Standby Circulating Pump DLP-5 and time delay relay with safety related pump and relay per WO NU 369764 (MAR 99-07-02-01)
- Heat Trace System for freeze protection of critical piping

b. Findings

No findings of significance were identified.

## 1R13 Maintenance Risk Assessments and Emergent Work Control

### a. Inspection Scope

The inspectors reviewed five work risk assessments to assess the effectiveness of licensee's risk assessment and emergent work evaluation in accordance with plant procedural requirements. The inspectors reviewed daily maintenance schedules and observed work controls to check risk management while maintenance was conducted. The inspectors assessed operability of equipment using technical specifications, the Final Safety Analysis Report, licensee procedures, and regulatory information such as NRC Generic Letter 91-18, Revision 1, Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded And Nonconforming Conditions. The inspectors also reviewed maintenance schedules to check that overall risk was minimized through preservation of safety functions such as decay heat removal capability, reactor coolant system inventory control, electric power availability, reactivity control, and primary containment control. The inspectors checked if licensee personnel were managing risk by assuring that key safety functions were preserved and that upon identification of an unplanned situation, the resulting emergent work was evaluated by the licensee for risk and controlled as described in technical specifications, licensee Compliance Procedure CP-253, Power Operations Risk Assessment and Management, and Operations Instruction OI-7, Control of Equipment and System Status. The inspectors checked that risk significant emergent work was documented in the corrective action program and that risk management actions were promptly initiated. The following work risk assessments and/or the unplanned maintenance conditions were specifically checked:

- Work Week 02W41; Risk Assessment updated after a small feedwater transient occurred when the 'A' main feedwater pump recirculation valve (FWV-18) inadvertently opened (NCR 74501)
- Work Week 02W42; Risk Assessment updated after Raw Water Pump RWP-3B showed high discharge pressure during surveillance SP-340D (NCR 75082)
- Work Week 02W43; Risk Assessment updated after a small feedwater transient and power reduction (NCR 75978)
- Work Week 02W44; Risk Assessment updated after emergency diesel generator EGDG-1A showed higher than normal vibrations during testing (NCR 76541)
- Work Week 02W52; Risk Assessment updated after emergency diesel generator EDG-1A showed a small fuel line leak during testing (NCR 80551)

### b. Findings

No findings of significance were identified.

#### 1R14 Personnel Performance During Non-routine Plant Evolutions

##### a. Inspection Scope

During three evolutions identified below, the inspectors observed/reviewed the operating personnel's performance and related logs and data to verify that the operator response was in accordance with the associated procedures and training:

- Response to automatic reactor trip on November 7, 2002
- Plant trip recovery, restart, and return to power operation on November 8 and 9, 2002
- Operation of the electrical distribution system during offsite power transformer outage to replace cables on January 2 and 3, 2003

##### b. Findings

No findings of significance were identified.

#### 1R15 Operability Evaluations

##### a. Inspection Scope

The inspectors reviewed three degraded or nonconforming conditions to determine if operability of systems or components important to safety was consistent with technical specifications, the Final Safety Analysis Report, 10CFR Part 50 requirements, and when applicable, NRC Generic Letter 91-18, Revision 1, Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions. The inspectors monitored licensee nuclear condition reports (NCRs), work schedules, or engineering documents to check if operability issues were being identified at an appropriate threshold and documented in the corrective action program, consistent with 10 CFR 50, Appendix B requirements, and licensee procedure NGGC-200, Corrective Action Program. The inspectors checked that when plant problems were identified, the resulting change in plant risk was identified and managed. The following issues, including nuclear condition reports (NCRs), were specifically checked:

- OPEX 58781, NRC Information Notice 02-12, and Engineering Change 48969, Operability of Submerged Low Voltage Electrical Cables
- NCR 79343 Engineering Change 49810 RO, Spare Power Cables for Circuit MTM241 from the Offsite Power Transformer to the Offsite Power Termination Enclosure, MT-14
- NCR 74589, Potential High Ambient Temperature for Makeup Pump Power Cables

##### b. Findings

No findings of significance were identified.

## 1R17 Permanent Plant Modifications

### a. Inspection Scope

The inspectors observed installation of replacement cables for the plant 4160 volt engineered safeguards busses under Engineering Change (EC) 51182, Replace Offsite Power Transformer Cables. The inspectors checked the electrical capability of the replacement cables against design requirements and monitored installation for proper work practices to assure design attributes were maintained. The inspectors also screened plant modifications completed since June 2000 for risk significance and the potential to affect plant safety systems.

### b. Findings

No findings of significance were identified.

## 1R19 Post-Maintenance Testing

### a. Inspection Scope

The inspectors evaluated the following three post-maintenance testing activities for risk significant systems to check the following (as applicable): (1) the effect of testing on the plant had been adequately addressed; (2) testing was adequate for the maintenance performed; (3) acceptance criteria were clear and demonstrated operational readiness; (4) test instrumentation was appropriate; (5) tests were performed as written; and (6) equipment was returned to its operational status following testing. The inspectors evaluated the licensee activities against the technical specifications, the Final Safety Analysis Report, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications. The inspectors routinely checked that post maintenance testing issues were documented in the licensee's corrective action program and corrected.

The specific post-maintenance activities evaluated included:

- Surveillance Procedure SP-340E, Decay Heat Pump DHP-1B, Building Spray Pump BSP-1B, and Valve Test, following rackout of DHP-1B breaker per NCR 75276
- Surveillance Procedure SP-354A, Monthly Functional Test of the Emergency Diesel Generator EGDG-1A, following clutch rebuild per Work Order 304029-01
- Surveillance Procedure SP-349C, Emergency Feedwater Pump 3 Test, following main shaft alignment per Work Order 287339 and bearing oil flush Work Order 294201

### b. Findings

No findings of significance were identified.

## 1R22 Surveillance Testing

### a. Inspection Scope

The inspectors either observed or reviewed four surveillance tests for risk-significant systems or components, to check compliance with technical specifications, 10 CFR Part 50, Appendix B, and licensee procedure requirements. The testing was also checked for consistency with the Final Safety Analysis Report. The inspectors checked if the testing demonstrated that the systems were ready to perform their intended safety functions. During the inspections, the inspectors verified that licensee personnel were documenting surveillance problems in the corrective action program in accordance with 10 CFR Part 50, Appendix B, Criterion XVI, and licensee procedure CAP-NGGC-200, Corrective Action Program.

Inservice test (IST) activities were reviewed to ensure testing methods, acceptance criteria, and corrective actions were in accordance with the ASME Code, Section XI, and Florida Power Corporation ASME Section XI, Ten Year Inservice Testing Program, dated May 4, 1998.

The specific surveillance activities checked included:

- SP-354B Emergency Diesel Generator EGDG-1B Functional Test
- SP-341, Monthly Containment Isolation Valve Operability Check
- SP-357, Engineered Safeguards Manual Actuation Channel Functional Test for High and Low Pressure Injection
- SP-340B, Decay Heat Pump, DHP-1A, Building Spray Pump, BSP-1A, and Valve Surveillance (IST)

### b. Findings

No findings of significance were identified.

## 1R23 Temporary Plant Modifications

### a. Inspection Scope

The inspectors reviewed one temporary modification listed below to ensure that it did not adversely affect the operation of a system that was altered. The inspectors screened temporary plant modifications for systems that were ranked high in risk for departures from design basis and for inadvertent changes that could challenge the systems to fulfill their safety function. The inspectors conducted plant tours and discussed system status with engineering and operations personnel to check for the existence of temporary modifications that had not been appropriately identified and evaluated.

- Engineering Change 49810: Review of temporary drying activities for offsite power cables (NCR 79343)

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors checked the licensee's emergency response performance on October 1, 2002, during a security exercise that included state and local officials. In a second inspection, the inspectors observed licensed operator performance in the plant specific simulator on November 22, 2002. In both observations, the inspectors assessed whether licensee personnel correctly classified the simulated events, then made the required notifications in accordance with the Crystal River Radiological Emergency Response Plan, Section 8.0, Emergency Classification System, 10 CFR Part 50.72, and 10 CFR Part 50, Appendix E. The inspectors checked if protective action recommendations were appropriate using licensee emergency response procedures. The inspectors attended the post-scenario critiques to check that the licensee evaluated performance in accordance with the Radiological Emergency Response Plan. The inspectors also assessed whether conduct of emergency operations and crew communications were in accordance with licensee procedures.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors sampled licensee submittals for the performance indicators (PIs) listed below for the period October 2001 through September 2002. To verify the accuracy of the PI data reported during that period, PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Rev. 2, were used to verify the basis in reporting for each data element.

Reactor Safety Cornerstone

- Safety System Functional Failures;
- Safety System Unavailability, Residual Heat Removal System
- Safety System Unavailability, High Pressure Injection System

The inspector reviewed licensee event reports (LERs), portions of operator logs, daily plant status reports, nuclear condition reports (NCRs), and performance indicator data sheets to verify that the licensee had adequately identified the cumulative safety system unavailabilities. The inspectors also checked the accuracy of the number of critical hours reported and the licensee's basis for reporting zero safety system functional

failures. In addition, the inspectors also interviewed licensee personnel associated with the performance indicator data collection, evaluation, and distribution. The inspectors checked that any deficiencies affecting the licensee's performance indicator program were entered into the corrective action program.

b. Findings

No findings of significance were identified.

4OA2 Problem Identification and Resolution

Annual Sample Review

a. Inspection Scope

The inspectors routinely checked that equipment, human performance, and program issues were being entered into the licensee corrective action program and that corrective actions were implemented in accordance with licensee procedure CAP-NGGC-0200, Corrective Action Program and 10 CFR Part 50, Appendix B. The inspectors specifically checked that Nuclear Condition Report 60478 was written when the licensee discovered cracks on the bearing housing for emergency diesel generator, EGDG-1B. The report was reviewed to verify that the full extent of the issues was identified, an appropriate evaluation was performed, and appropriate corrective actions were specified and prioritized. The inspectors also checked that the corrective actions had been completed and evaluated the licensee's extent of condition determination. The inspectors checked that the licensee considered reportability consistent with 10 CFR Part 50.73. The inspectors also checked if the occurrence had been reviewed by plant management as specified by licensee procedures.

b. Findings and Observations

There were no findings identified. The inspectors verified that the root cause evaluation and associated corrective actions were appropriate and also timely, relative to the identified problem; therefore, no violation of regulatory requirements was identified.

4OA3 Event Followup

.1 (Closed) Licensee Event Report 50-302/02-002-00, Reactor Trip Due to Substation Generator Output Breaker Relay Mis-operation

This licensee event report (LER) reported a reactor trip from full power that occurred on November 7, 2002. With the minor exceptions discussed in the LER, plant systems operated normally during the reactor trip and no complications were identified. The event was reviewed by the inspectors and no performance deficiencies were identified. Corrective actions were verified as either complete or in-progress. The licensee documented the failed equipment in NCR 76662. The LER is closed.

.2 Reactor Trip on November 7, 2002

a. Inspection Scope

The inspectors observed in the plant control room, the licensee's actions associated with an automatic reactor trip from full power on November 7, 2002. The reactor trip occurred when a protective relay for the main generator inadvertently operated following an electrical control circuit spike that occurred during relay testing in the switchyard. The inspectors observed operators complete the appropriate emergency operating procedures, checked operating parameters for mitigating systems, and verified fission product barriers remained intact. The inspectors checked the operator's event classification and reporting. Subsequently, the inspectors checked the licensee post-trip review and evaluation of the event, including root cause determination to assure the licensee adequately evaluated the transient and specified corrective actions to prevent recurrence.

b. Findings

No findings of significance were identified.

4OA5 Other Activities

.1 Licensee Strike Contingency Plans (IP 92709)

In a Special Inspection, the inspectors reviewed the licensee's strike contingency plans to determine if reactor operation, facility security, maintenance, and fire protection were to be maintained consistent with site technical specifications and other regulatory requirements. Interviews were conducted with supervisory personnel and the licensee's written plans were reviewed to determine if the required number of qualified personnel would be available for the proper operation and safety of the facility should a strike occur. On December 18, 2002, the International Brotherhood of Electrical Workers ratified a contractual agreement with Progress Energy ending the potential for a strike.

.2 Temporary Instruction (TI) 2515/148, Appendix A, Pre-inspection Audit for Interim Compensatory Measures (ICMs) at Nuclear Power Plants

The inspectors conducted an audit of the licensee's actions in response to a February 25, 2002 Order, which required the licensee to implement certain interim security compensatory measures. The audit consisted of a broad-scope review of the licensee's actions in response to the Order in the areas of operations, security, emergency preparedness, and information technology as well as additional elements prescribed by the TI. The inspectors selectively reviewed relevant documentation and procedures; directly observed equipment, personnel, and activities in progress; and discussed licensee actions with personnel responsible for development and implementation of the ICM actions.



The licensee's activities were reviewed against the requirements of the February 25, 2002 Order; the provisions of TI 2515/148, Appendix A; the licensee's response to the Order; and the provisions of the NRC-endorsed NEI Implementation Guidance, dated July 24, 2002.

No findings of significance were identified. A more in-depth review of the licensee's implementation of the February 25, 2002 Order, utilizing Appendix B and C of TI 2515/148 will be conducted in the near future.

4OA6 Meetings, Including Exit

Exit Meeting Summary

The resident inspectors presented the inspection results to Mr. D. Young and other members of licensee management at the conclusion of the inspection on January 13, 2003. The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. The licensee did not identify any proprietary information.

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee personnel:

M. Annacone, Manager, Operations  
S. Bernhoft, Supervisor, System Engineering  
W. Brewer, Manager, Work Controls  
R. Davis, Manager, Training  
J. Franke, Plant General Manager  
C. Gurganus, Manager, Maintenance  
D. Roderick, Director Site Operations  
S. Johnson, Supervisor, Corrective Actions Program  
S. Powell, Supervisor, Licensing  
M. Rigsby, Radiation Protection Manager  
J. Stephenson, Supervisor, Emergency Preparedness  
J. Terry, Manager, Engineering  
R. Warden, Manager, Nuclear Assessment  
D. Young, Vice President, Crystal River Nuclear Plant  
M. Folding, Security Manager

#### NRC personnel:

L. Wert, Chief, Reactor Projects Branch 3, NRC Region II

### **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

#### Closed

50-302/02-002-00	LER	Reactor Trip Due to Substation Generator Output Breaker Relay Mis-operation (Section 4OA3)
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### **LIST OF DOCUMENTS REVIEWED**

#### **Section 1R07: Heat Sink Performance**

##### Procedures

Operating Procedure OP-103B, Rev. 34, Plant Operating Curves,  
Operating Manual PM-275, Rev. 11, General Preventive Maintenance Work

##### Other Documents Reviewed

Work Request Nos. NU 0372276 and NU 0372381 for cleaning and inspecting of SWHE-1A Superintendent Shift Operations' Log for SWHE-1A on December 3, 2001 and January 28, 2002 and for DCHE-1B on October 24, 2002

Interoffice Correspondence for evaluation of grass occlusion in DCHE-1B tubes, dated October 29, 2002

Interoffice Correspondence for Reportability Evaluation of Tube Blockage for SWHE on August 1 and 2, 2002

Corrective Action Process- CAP No. 3-C00-0447 for RWP-2A declared out of service due to low differential pressure in action range date February 9, 2002

Action Request No. 00042340 for Condition Report 01-1157 for RWP-2A Indicating a Degrading Performance Trend

Interoffice Correspondence for Ultimate Heat Sink (UHS) (Intake Water or Sea Water) Temperature and RWP-3A/B Pressure Limits dated May 7, 2001

Work History for RWV-40 and RWV-41

SWHE Blockage History Chart

Drawing No. FD-302-611 Sheet 3 of 4, Rev. 11, Nuclear Services and Decay Heat Sea Water

Drawing No. P-304-611, Rev. 13, Nuclear Service & Decay Heat Sea Water Underground Piping Plan & Sections

GE Betz Spectrus CT1300 and DT1401 Chemical Treatment Reports for Clams on October 29, 2002 and November 20, 2002

Design Calculation No. M97-0133, Rev. 5, Service Water Heat Loads During Large Break Loss of Coolant Accident (LBLOCA) and Service Water Temperature Decay Times