

U.S. NUCLEAR REGULATORY COMMISSION

REGION 2

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

Report No: 50-302/96-20

Licensee: Florida Power Corporation

Facility: Crystal River 3 Nuclear Station

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

Dates: December 1, 1996 through January 11, 1997

Inspectors: S. Cahill, Senior Resident Inspector
T. Cooper, Resident Inspector

Approved by: K. Landis, Chief, Projects Branch 3
Division of Reactor Projects

EXECUTIVE SUMMARY

Crystal River 3 Nuclear Station NRC Inspection Report 50-302/96-20

This integrated inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a 6-week period of resident inspection.

Operations

Two weaknesses were identified in the cold weather preparation program: the lack of routine preventative maintenance on the heat tracing and the lack of clear guidance to the operations personnel on implementation of the cold weather checklist. (paragraph 02.1)

The inspectors performed a detailed review of the latest quality program department's audit report and observed that the audit included an adequate integrated assessment of the findings. The audit concluded that the number of issues identified were indicative of the organizational and programmatic problems identified in recent NRC reports. (paragraph 07.1)

The failure to question the normal makeup path availability, the incorrect information presented to the Plant Review Committee (PRC), and the lack of dissemination of the PRC expectations were indicative of deficiencies in the PRC process. The licensee's corrective actions were prompt and effective. (paragraph 07.2)

A Violation (VIO 50-302/96-20-01) was identified for failure to adhere to Technical Specification reactor coolant system cooldown limits during a past cooldown. Unresolved Item (URI 50-302/95-21-04) is closed. (paragraph 08.1)

Maintenance

A Violation (VIO 50-302/96-20-02) was identified for the failure to implement procedural requirements for the review and development of a maintenance procedure. (paragraph M3.1)

The surveillance and contingency actions implemented for a battery cell, which failed the visual inspection, were conducted satisfactorily. (paragraph M3.2)

Plant Support

The inspectors reviewed the licensee's actions in response to an event involving falsification of training records. The actions taken were found to be conservative. (paragraph R5.1)

A weakness was identified in the planning for the security upgrade which has resulted in large amounts of overtime being scheduled for extended periods of time. (paragraph S6.1)

One weakness was identified for the implementation of fire brigade manning requirements. (paragraph F6.1)

Report Details

Summary of Plant Status

The unit began this inspection period in Mode 5, continuing in the outage that began on September 2, 1996. The development of modification packages continues, although no major modification has begun implementation during this inspection period.

I. Operations

02 Operational Status of Facilities and Equipment

02.1 Cold Weather Preparation

a. Inspection Scope (71714)

The inspectors performed an inspection of the licensee's cold weather preparation program to determine the program was effectively implemented to protect safety-related systems.

b. Observations and Findings

The inspectors reviewed the licensee's preparations for cold weather. Licensee Procedure OI-13, Adverse Weather Conditions, requires that Form OI13-1, Freezing Weather Preparations Checklist, be completed when the predicted temperature will drop below 35°F within the next 24 hours.

The inspectors verified that the preventative maintenance (PM) had been performed on the unit's heat tracing in November, 1996. However, this was done by scheduling a Work Request (WR), as there was no procedure to perform PM on heat tracing. All PMs are controlled, both scheduling and implementation by the WR process. The lack of formal controls for the performance of PMs on heat tracing was a weakness, providing no mechanism to assure that preventative maintenance was completed. Subsequent to discussions with the inspectors, the licensee revised the program to include a routine PM program for heat tracing.

The inspectors reviewed OI-13 and noted that guidance given to the operations personnel for assuring that heat tracing was functioning was weak. The procedure instructed the operator to verify that the heat tracing was energized. The panel and breaker numbers for the heat tracing were provided. The inspectors spoke with several operators regarding the instructions provided in OI-13. The operators had varying opinions as to the intent of the procedure. Some operators thought that the instruction meant merely to verify that the light showing the circuit was illuminated was lit. Some operators thought that placing their hands on the heat traced piping would be a good indication of the heat tracing being energized. The lack of clear guidance was a weakness. Following the identification of this weakness, the licensee verbally directed the shift personnel to use a pyrometer to verify that the heat tracing was actually energized during the performance of the checklist. By the end of this inspection period, the licensee was in

the process of revising OI-13 to include more detailed guidance for cold weather preparations.

c. Conclusions

Two weaknesses were identified in the cold weather preparation program: the lack of routine preventative maintenance on the heat tracing and the lack of clear guidance to the operations personnel on implementation of the cold weather checklist.

06 Operations Organization and Administration

- 06.1 Mr. P. Beard, Senior Vice President, Nuclear Operations, announced his retirement as of April 1, 1997. Mr. R. Anderson will be taking his place as of March 3, 1997.
- 06.2 Mr. G. Boldt, Vice President of Nuclear Production, announced his resignation as of January 31, 1997. His replacement will be Mr. J. Cowan, Site Vice President, Nuclear Operations.
- 06.3 Mr. L. Kelley, Director, Nuclear Operations Site Support, has announced his resignation, effective January 31, 1997. His replacement will be Mr. D. Kunsemiller.
- 06.4 Mr. J. Holden has been appointed Director, Nuclear Operations Engineering and Projects, effective February, 1997.
- 06.5 Mr. H. Koon has been named Scheduling Manager, Nuclear Operations. Mr. D. Roderick has been named Outage Manager, Nuclear Operations.
- 06.6 Mr. D. Goldstein has been named Health Physics Manager.
- 06.7 Mr. J. Campbell, Assistant Plant Director, Maintenance and Radiation Protection, will be transferring to another project. The transfer date will be determined when a replacement is named.

07 Quality Assurance in Operations

07.1 3rd Quarter Quality Programs Department (QPD) Audit Results

a. Inspection Scope (40500, 92903)

The inspectors reviewed the results of the licensee's latest quality program department's audit.

b. Observations and Findings

The inspectors reviewed the 1996 third quarter quality programs department audit report of integrated activities at the site, issued on December 11, 1996. The integrated audit included aspects of operations, engineering, maintenance, and plant support. The audit resulted in sixteen problem reports (PRs) and 56 precursor cards (PCs) being issued.

The audit concluded that the number of issues identified were indicative of the organizational and programmatic problems identified in recent NRC reports.

The audit identified that the corrective action program was weak as evidenced by numerous examples of overdue corrective actions in the engineering area. Also, corrective actions were identified which failed to prevent recurrence of original or similar problems in operations, maintenance, and engineering areas. The licensee concluded that even though the problem identification program has improved, it appeared that resources were not adequately dedicated to finding solutions that would prevent recurrence and would lead to improvements.

Procedural weaknesses were observed by the auditors in all functional areas. The auditors' assessment concluded that the procedure development and review process continues to be a secondary function within the various organizations, resulting in a lack of consistent quality performance.

Weaknesses in the understanding of regulatory requirements and their implementation within the security organization were identified by the audit.

c. Conclusions

The inspectors performed a detailed review of the audit report and observed that the audit included an adequate, integrated assessment of the findings. Conclusions were reached based on the findings, including assessments where similar findings were found in multiple functional areas. The findings identified by the audit were similar to those identified by the NRC in previous reports. No actions, beyond those required to address the programmatic problems previously identified, were required for these items.

07.2 Licensee Self-Assessment Activities

a. Inspection Scope (71707, 40500)

The inspector attended a special Plant Review Committee (PRC) Meeting held on January 6, 1997, to review and approve a clearance tagging order for work on a reactor coolant system (RCS) drain valve. The clearance needed PRC approval because the drain valve was only isolable from the reactor by two check valves in series.

b. Observations and Findings

The inspector observed that the PRC members asked detailed questions on diverse areas of concern including the amount of water expected to be drained, maintenance contingencies if a leak developed, and the potential for hydrogen gas coming out of solution. However, the PRC members did not question the method of inventory control operators would use if a leak developed. The PRC was informed that the line to the

drain valve was already drained and the check valves were not leaking. The PRC approved the clearance based on contingencies to reinstall the valve if a leak developed and not to leave the valve unattended with the system breached.

When the clearance order was brought for operations approval to be implemented, the Nuclear Shift Supervisor On Duty (NSSOD) elected to postpone it because the normal RCS makeup path was out of service and would be returned to service in several days. It was then discovered that the drain line had not been drained and the check valves leak verification had not been done. Additionally, it was discovered that the contingency actions approved by the PRC had not been incorporated into an Operations Night Order or the maintenance procedure as some members of PRC had assumed would be done.

The licensee immediately stopped any further work on the drain valve and initiated a PC to implement corrective action. The licensee determined the PRC presenter made an erroneous assumption and did not verify that the drain line was drained and the check valves tested. Operations management took appropriate disciplinary action. The licensee also implemented an interim process to ensure the basis for PRC decisions and PRC expectations would be clearly communicated to shift management and accountability would be established. A revision to Administrative Instruction AI-300, Plant Review Committee Charter, was planned to incorporate the process change permanently.

c. Conclusions

The inspector concluded Operations Shift Management exhibited conservative decision making by electing to postpone the valve work. However, the inspector concluded the failure to question the normal makeup path availability, the incorrect information presented to the PRC, and the lack of dissemination of the PRC expectations were indicative of deficiencies in PRC questioning and precise communications. The licensee's corrective action to the deficiencies was prompt and effective.

08 Miscellaneous Operations Issues

08.1 (Closed) URI 50-302/95-21-04, Excessive RCS Cooldown Rate

a. Inspection Scope (71707, 92700, 92901)

The inspectors reviewed the circumstances surrounding the event which resulted in exceeding the Technical Specification limitations for a past reactor coolant system pressure and temperature.

b. Observations and Findings

Technical Specification 3.4.3, Reactor Coolant System (RCS) Pressure and Temperature (P/T) Limits, requires that at all times, RCS pressure, RCS temperature, and RCS heatup and cooldown rates shall be maintained

within the limits specified in the Pressure Temperature Limits Report (PTLR). On January 11, 1996, during unit shutdown for the condenser tube outage, the RCS cooldown rate exceeded the limits specified in the PTLR for approximately one hour. This was the result of the operators using the decay heat cooler inlet temperature to transition to the slower cooldown rate of 10°F per hour instead of the decay heat outlet temperature, as intended by the procedure. The licensee evaluated the actual cooldown and determined there were no detrimental effects due to the different transition temperature.

The licensee obtained an evaluation which concluded that the cooldown had no effect on the reactor vessel integrity. The Senior Reactor Operator (SRO) had noted that the decay heat cooler inlet temperature was used for most other functions (i.e., mode changes and heat balance calculations) that he was aware of and he thought to be consistent, he should use that temperature for this change also. He felt the notes in the procedures referred to the temperature to use for the cooldown rate calculation, and not necessarily for the transition point.

The NRC Office of Investigation conducted an investigation of this event in IO Case No. 2-96-018. The investigation Synopsis is an enclosure to this report. The investigators concluded that the CR3 SRO and RO decision-makers on duty during the cooldown on January 11, 1996, did not deliberately violate plant cooldown procedures.

Licensee Procedure SP-422, RC System Heatup And Cooldown Surveillance, was revised and issued on February 22, 1996 to clarify which temperature should be used to transition to a slower cooldown rate.

TS 3.4.3, Reactor Coolant System (RCS) Pressure and Temperature (P/T) Limits, requires that at all times, RCS pressure, RCS temperature, and RCS heatup and cooldown rates shall be maintained within the limits specified in the Pressure Temperature Limits Report (PTLR). On January 11, 1996, during unit cooldown, the RCS cooldown rate exceeded the limits specified in the PTLR for approximately one hour. Specifically, the cooldown rate was not decreased from 25°F per half-hour to less than 10°F per hour at a RCS temperature of 150°F measured by the decay heat cooler outlet temperature, as required by the PTLR curve entitled, Reactor Coolant System Pressure-Temperature Limits for Cooldown for First 15 EFPY. This is identified as Violation 50-302/96-20-01, Failure To Adhere To Reactor Coolant System Cooldown Limits.

c. Conclusions

A violation was identified for failure to adhere to Technical Specification reactor coolant system cooldown limits. URI 50-302/95-21-04, Excessive RCS Cooldown Rate, was closed.

II. Maintenance

M3 Maintenance Procedures and Documentation

M3.1 Maintenance Procedure Problems

a. Inspection Scope (37551, 62707, 92902)

The inspectors reviewed the development of maintenance Procedure PM-191, Main Turbine/Generator, Feedwater Turbine Layup, as a result of problems identified in the licensee's precursor card program.

b. Observations and Findings

On December 17, 1996, Revision 0 to licensee Procedure PM-191, Main Turbine/Generator, Feedwater Turbine Layup, was issued. On that day, Precursor Card (PC) 96-5766 was written for the failure to include an Instrumentation and Controls (I&C) qualified technical review during the development of the procedure. On December 19, 1996, this PC was classified as a D level PC and was assigned to Nuclear Plant Technical Support (NPTS) for dispositioning. NPTS was the group which originally developed the new procedure. The procedure was not revised prior to implementation.

The inspectors reviewed the original Enclosure 1 for PM-191 and noted that three technical reviews were conducted by personnel in NPTS, with no other departments performing technical reviews. Qualified reviews were performed by NPTS, mechanical maintenance and operations. I&C did not sign as having performed any of the reviews of the procedure.

When the procedure was presented to the Shift Supervisor on Duty (SSOD) for implementation, he canceled the work and issued a PC for the procedure failing to adhere to the procedure standards required by AI-402B, Procedure Writing (Except for Abnormal and Emergency Operating Procedures). The SSOD identified that no sign-offs or place keeping techniques were employed and that guidance for emergency shutdown was unclear, with insufficient instructions to complete the required actions. Procedure AI-400C, New Procedures and Procedure Change Processes, required that all qualified reviewers of a procedure were to verify conformance to the writers guide, AI-402B.

Revision 17, dated December 8, 1995, of AI-400C was in effect when the development process began on PM-191. Enclosure 1, Originator's Checklist, required that if interfacing department's actions or procedures would be impacted, then the interfacing department must perform a qualified review. Instructions were provided in the procedure as to whom was to perform a qualified review and what the review was to accomplish. Enclosure 10, Qualified Review/Technical Review, to AI-400C had sign-off blocks for the completion of the qualified reviews separately from the technical reviews, there were no directions either in the body of the procedure or in Enclosure 1 as to whom was to complete a technical review and what was expected of a technical review.

Prior to Procedure PM-191 being implemented, discrepancies in the developmental reviews were identified by the I&C department. No review was performed between the identification of the discrepancies and the attempted implementation of the procedure. The SSOD noted additional discrepancies and halted further implementation of the procedure. The failure to respond promptly and adequately to the original PC resulted in the procedure not conforming to the applicable procedural standards.

Technical Specification (TS) 5.6.1, Procedures, requires that written procedures be established, implemented, and maintained for the recommendations in Regulatory Guide (RG) 1.33, Revision 2, Appendix A, February, 1978. RG 1.33, as implemented by TS 5.6.1, requires that administrative procedures be established for control of procedure review and approval. The failure of the licensee to review PM-191 adequately, as required by AI-400C, is a violation, and will be tracked as VIO 50-302/96-20-02, Failure to Follow Procedure AI-400 C for the Review and Development of Maintenance Procedure PM-191.

Revision 18, dated December 6, 1996, of AI-400C, Enclosure 1, requires that the qualified review be conducted to ensure compliance with AI-402B, which requires that user signoffs be included. This is the revision that was in effect when PM-191 was approved.

AI-400C, Enclosure 1 requires that a human factors review be performed from the end-user department. This procedure does not address the situation where there are multiple end-user departments, such as PM-191. Enclosure 1 also requires that a technical review be performed, independent of the originator, by the department that the procedures interpretation contact is a member of. Even though the current revision of AI-400C provides better guidance for the performing of the qualified and technical reviews, the licensee has recognized a need for further clarification to the procedure and is in the process of developing a new procedural control system. The development process has not progressed sufficiently to allow assessment.

c. Conclusions

One violation was identified for the failure to implement procedural requirements for the review and development of a maintenance procedure.

M3.2 Surveillance Observations

a. Inspection Scope (61726, 62707)

The inspector observed the performance of surveillance testing to observe that all prerequisites were being met, that the procedure was followed in the performance of the test, that the results were as expected and, if not, that adequate corrective actions were taken.

b. Observations and Findings

The inspectors observed the performance of licensee Procedure SP-521.

Quarterly Battery Check, performed on the B Engineered Safeguards (ES) batteries. This procedure performs the surveillance to satisfy TS Surveillance Requirements (SR) 3.8.4.2, 3.8.5.1, 3.8.6.2, and 3.8.6.3, on a quarterly basis.

The inspectors attended the pre-job briefing conducted in the main control room for this evolution. The SSOD conducting this briefing was thorough, covering safety, possible problems that could be encountered during this test, job assignments and contingency actions. The communications between the SSOD, the systems engineer and the maintenance personnel were comprehensive and clear.

Discussions were held concerning the possibility of one cell failing its cleanliness inspection, due to a history of this cell not meeting acceptance criteria. The discussion addressed the allowable corrective, compensatory actions for this condition, which included taking connection resistance readings per MP-401, Battery: Battery Maintenance. If a cell's readings were outside of the allowable values, the cell may be jumpered out of the battery. The decision was made during this meeting to pre-stage the necessary equipment to jumper a cell out, if needed.

During the visual inspection of the batteries, cell 61 did not meet the acceptance criteria for the visual cleanliness inspection. A small breach of the terminal post seal and had allowed minute amounts of battery acid to migrate up the terminal post, causing corrosion. The connection resistance readings, conducted per MP-401, were satisfactory. No other discrepancies were identified during the performance of the surveillance.

c. Conclusions

The surveillance and contingency actions implemented for the battery cell which failed the visual inspection were conducted satisfactorily.

IV. Plant Support

R5 Staff Training and Qualification in RP&C

R5.1 Falsification of Training Records (71750, 92904)

The licensee has a three part training program for radiation workers. The workers must successfully complete computer based training, an instructional class with a health physics technician, and a practical factors walkdown with a qualified person inside the radiation control area (RCA).

On December 20, 1996, a PC was issued by a Health Physics technician concerning the results of a spot check of training records. The technician noted that one of the contract personnel who conducts practical factors walkdowns had completed and signed off a person's training records on December 20, 1996. The technician verified that the

person completing the paperwork had not logged onto a Radiation Work Permit for entering the RCA since December 5, 1996. The technician notified the Manager of Health Physics of the finding.

The licensee immediately restricted the individuals involved access to the RCA and removed their thermoluminescent dosimetry (TLD) from the storage rack. Licensee management terminated the person completing the paperwork and barred him from return to site. The licensee reviewed the completed documentation that the individual had completed on other workers and found no additional discrepancies. The inspectors reviewed the licensee's actions in response to the event and found their actions to be conservative.

S6 Security Organization and Administration

S6.1 Security Scheduling

a. Inspection Scope (71750)

The inspectors reviewed the working hour schedule for the security officers since the end of the 10R refueling outage and during the present outage. During this period of time, the licensee was conducting a planned upgrade of the security system at the plant.

b. Observations and Findings

The inspectors reviewed the schedule and the actual hours worked for officers from each security team. The licensee, during the upgrade implementation, scheduled each officer an average of approximately 60 hours per week, with increases to 72 hours per week between 45 and 50 percent of the time. To maintain the scheduled Overtime (OT) at these levels, the licensee has supplemented the normal security force with four unarmed watchmen and periodically with four security officers from another nuclear plant. These personnel have been used in areas that do not require an armed security officer to relieve response team members. Even with these supplementary forces, the licensee had to maintain the normal security force on long hours for extended periods of time. This is a weakness in the planning for the security upgrade.

The licensee has announced that an additional four unarmed watchmen are being hired to help reduce the burden on the normal security force.

c. Conclusions

A weakness was identified in the planning for the security upgrade which has resulted in large amounts of overtime being scheduled and worked for extended periods of time.

F4 Fire Protection Staff Knowledge and Performance

F4.1 Response to Smoke in Auxiliary Building (64704, 71750)

At 1:45 p.m. on December 3, 1996, roving fire watch personnel smelled and observed smoke in the overhead of the 119 foot elevation of the Auxiliary Building (AB) near the outside door adjacent to the emergency diesel generator rooms. The fire watch immediately notified the control room. The fire team leader (FTL) responded to the area.

The FTL also smelled and observed the smoke. The FTL notified the control room and activated the fire brigade. At the time of the incident, a hot roofing process was being worked on the diesel generator building. Two electric shop technicians working in the area were dispatched by the FTL to stop the roofing work on the building. The electricians reported to the FTL that the work had been stopped and that the smoke appeared to have been coming from that location but had stopped when the roofing work was stopped. At 1:55 p.m., the FTL notified the control room that the fire was out. The FTL had the members of the fire brigade check out other areas of the AB for additional signs of smoke. No additional smoke or signs of fire were located.

Fire protection personnel continued the investigation, after being briefed by the FTL. Interviews with the fire watch on duty for the roofing work and with the job supervisor revealed that they had observed no signs of a fire, but that smoke was being generated as a normal byproduct of the roofing process. The work that was being performed was putting in the flashing materials at the junction point where the diesel building roof adjoins the AB roof. The supervisor informed the fire protection personnel that the preheating of the roofing materials, along with the propane torches used for the heating, produces substantial amounts of smoke. The licensee reviewed the layout of the job and concluded that the smoke being produced by the roofing job was being drawn into the AB through the exterior door, due to the slight negative pressure of the AB.

The licensee implemented additional fire watches in the AB during the completion of the roofing work on the diesel building. The findings of the post incident investigation were discussed with the Director of Nuclear Plant Operations, the Shift Manager, and the Shift Supervisor on Duty prior to resuming the roofing work.

The inspectors reviewed the licensee's investigation report and interviewed involved personnel. The licensee's actions for this incident appeared to be adequate. No further actions are required in this area.

F6 Fire Protection Organization and Administration

F6.1 Fire Brigade Manning

a. Inspection Scope (64704, 71750)

The inspectors reviewed manning practices for the fire brigade, as a result of several concerns identified in precursor cards.

b. Observations and Findings

In Inspection Reports (IR) 94-22 and 95-02, the inspectors identified concerns with fire brigade manning and turnover practices. One of the problems identified was with the fire team leader being verbally notified which members were on site and assigned to the fire brigade. At the time, the licensee informed the NRC that the practices would be changed to require a written notification. This was accomplished using a interoffice communication to express this expectation to the fire brigade members.

On December 19, 1996 and December 21, 1996, the fire team leader wrote PCs 96-5781 and 96-5884 to document the failure of those fire brigade members who are not in the operations department to notify the fire team leader of the composition of the fire brigade. The author of the PCs noted that no procedural requirements existed to ensure the notification existed. The inspectors consider this a weakness in the implementation of the fire brigade requirements. Subsequent to discussions concerning the PCs, the licensee began the revision of AI-2205, Administration of CR-3 Fire Brigade Organization, to include provisions for notification of the fire team leader at the beginning of each shift.

c. Conclusions

One weakness was identified for the implementation of fire brigade manning requirements.

V. Management Meetings

X1 Exit Meeting Summary

The inspection scope and findings were summarized on January 13, 1997. Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

X3 Management Meeting Summary

- X3.1 On December 2, 1996, a public meeting was held at the Crystal River site to discuss the Systematic Assessment of Licensee Performance (SALP) results. The results are discussed in Inspection Report 50-302/96-99.
- X3.2 On December 3, 1996, a public meeting was held at the Crystal River site to discuss items on the NRC Manual Chapter 0350 restart matrix. A meeting summary will be issued separately.
- X3.3 On December 12, 1996, Commissioner Nils Diaz visited the site, met with senior management and toured the plant. A press conference was held the same day. Accompanying Dr. Diaz were two technical assistants, Anthony Hsia and George Constable.
- X3.4 On January 9, 1997 a public meeting was held at the Crystal River site to discuss the status of the licensee's Corrective Action Plan (CAP), and to discuss items on the restart matrix. A meeting summary will be issued separately.

PARTIAL LIST OF PERSONS CONTACTED

Licensees

K. Baker, Manager, Nuclear Configuration Management
 P. Beard, Senior Vice President, Nuclear Operations
 G. Boldt, Vice President, Nuclear Production
 J. Campbell, Assistant Plant Director, Maintenance and Radiation Protection
 W. Conklin, Jr., Director, Nuclear Operations Materials and Controls
 R. Davis, Assistant Plant Director, Operations and Chemistry
 D. DeMontfort, Manager, Nuclear Operations
 M. Donovan, Supervisor, Rapid Engineering Response Team
 R. Fuller, Manager, Nuclear Chemistry
 B. Gutherman, Manager, Nuclear Licensing
 G. Halnon, Assistant Director, Nuclear Operations Site Support
 B. Hickie, Director, Nuclear Plant Operations
 L. Kelley, Director, Nuclear Operations Site Support
 H. Koon, Manager, Nuclear Production and Nuclear Outage
 K. Lancaster, Manager, Nuclear Projects
 J. Maseda, Manager, Engineering Programs
 P. McKee, Manager, Nuclear Plant Operations Support
 R. McLaughlin, Nuclear Regulatory Specialist
 W. Rossfeld, Manager, Site Nuclear Services
 J. Stephenson, Manager, Radiological Emergency Planning
 F. Sullivan, Manager, Nuclear Engineering Design
 J. Terry, Manager, Nuclear Plant Technical Support
 D. Watson, Manager, Nuclear Security
 R. Widell, Director, Nuclear Operations Training
 D. Wilder, Manager, Safety Assessment Team

NRC

C. Casto, Engineering Branch Chief, Region II (December 3, 1996, January 9, 1997)
 B. Crowley, Reactor Inspector, Region II (December 2 through 6, 1996)
 P. Fredrickson, Special Inspection Branch Chief, Region II (December 5 through 6, 1996)
 R. Hannah, Public Affairs Officer, Region II (January 9, 1997)
 F. Hebdon, Director, Directorate II-3, NRR (December 2 through 3, 1996, January 8 through 9, 1997)
 J. Jaudon, Director, Division of Reactor Safety, Region II (December 2 through 3, 1996, January 8 through 9, 1997)
 J. Johnson, Director, Division of Reactor Projects, Region II (January 9, 1997)
 K. Landis, Branch Chief, Region II (December 2 through 6, 1996, December 12, 1996, December 19 through 20, 1996, January 8 through 10, 1997)
 L. Raghavan, Project Manager, NRR (December 2 through 3, 1996, January 8 through 9, 1997)
 L. Reyes, Regional Administrator, Region II (December 2, 1996, December 12, 1996, January 9, 1997)
 R. Schin, Reactor Inspector, Region II (December 2 through 6, 1996, January 8 through 9, 1997)
 W. Stansberry, Physical Security Specialist, Region II (December 2 through 6, 1996)

L. Stratton, Physical Security Specialist, Region II (December 2 through 6, December 16 through 19, 1996)

M. Thomas, Reactor Inspector, Region II (December 2 through 6, 1996)

D. Thompson, Physical Security Specialist, Region II (December 2 through 6, 1996)

G. Tracy, Executive Director, Operations (EDO) Coordinator, Region II (January 8 through 9, 1997)

INSPECTION PROCEDURES USED

IP 37551: Onsite Engineering
 IP 40500: Effectiveness of Licensee Controls in Identifying, Resolving and Preventing Problems
 IP 61726: Surveillance Observations
 IP 62707: Conduct of Maintenance
 IP 64704: Fire Protection Program
 IP 71707: Plant Operations
 IP 71714: Cold Weather Preparations
 IP 71750: Plant Support Activities
 IP 92700: Onsite Followup of Written Reports of Nonroutine Events at Power Reactor Facilities
 IP 92901: Followup - Operations
 IP 92902: Followup - Maintenance
 IP 92903: Followup - Engineering
 IP 92904: Followup - Plant Support

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

<u>Type</u>	<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
VIO	50-302/96-20-01	Open	Failure to Adhere to Reactor Coolant System Cooldown Limits. (paragraph 08.1)
VIO	50-302/96-20-02	Open	Failure to Follow Procedure AI-400C For Review and Development of Maintenance Procedure PM-191. (paragraph M3.1)

Closed

<u>Type</u>	<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
URI	50-302/95-21-04	Closed	Excessive Reactor Coolant System Cooldown Rate. (paragraph 08.1)

LIST OF ACRONYMS USED

AB	- Auxiliary Building
CAP	- Corrective Action Plan
EDO	- Executive Director, Operations
EFPY	- Effective Full Power Years
ES	- Engineered Safeguards
FPC	- Florida Power Corporation
FTL	- Fire Team Leader
I&C	- Instrumentation and Control
IR	- Inspection Report
NPTS	- Nuclear Plant Technical Support
NRC	- Nuclear Regulatory Commission
NSSOD	- Nuclear Shift Supervisor On Duty
OT	- Overtime
PC	- Precursor Card
PM	- Preventative Maintenance
PR	- Problem Report
PRC	- Plant Review Committee
P/T	- Pressure & Temperature
PTLR	- Pressure and Temperature Limits Report
QPD	- Quality Programs Department
RCA	- Radiation Control Area
RCS	- Reactor Coolant System
RG	- Regulatory Guide
SALP	- Systematic Assessment of Licensee Performance
SR	- Surveillance Requirement
SRO	- Senior Reactor Operator
SSOD	- Shift Supervisor on Duty
TLD	- Thermoluminescent Dosimetry
TS	- Technical Specification
URI	- Unresolved Item
VIO	- Violation
WR	- Work Request

SYNOPSIS

On May 22, 1996, the Office of Investigations, Region II, U.S. Nuclear Regulatory Commission initiated an investigation to determine if a senior reactor operator (SRO) and/or reactor operators (ROs) at the Florida Power Corporation Crystal River Nuclear Plant (CRNP), Unit 3, had deliberately violated plant cooldown rate procedures on January 11, 1996, by selecting a temperature indication during cooldown that caused the plant to exceed technical specification cooldown rate limits.

Based upon the evidence developed during this investigation, it is concluded that the CRNP SRO and RO decision-makers on duty during the CRNP Unit 3 cooldown on January 11, 1996, did not deliberately violate cooldown procedures.