



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

February 17, 2000

Southern Nuclear Operating Company, Inc.
ATTN: Mr. D. N. Morey
Vice President
P. O. Box 1295
Birmingham, AL 35201-1295

SUBJECT: NRC INTEGRATED INSPECTION REPORT NOS. 50-348/99-10 and 50-364/99-10

Dear Mr. Morey:

On January 22, 2000, the NRC completed a safety inspection at your Farley Nuclear Plant. The enclosed integrated report presents the results of that inspection. During the six-week period covered by this inspection, your conduct of activities at the Farley Plant facilities was generally characterized by safety-conscious operations, sound engineering, good maintenance practices, and good plant support activities.

Based on the results of this inspection, the NRC has determined that a violation of NRC requirements occurred. This violation is being treated as a Non-Cited Violation, consistent with Section VII.B.1.a of the Enforcement Policy. This NCV is described in the subject inspection report. If you contest the violation or the severity of this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, Region II, and the Director, Office of Enforcement, USNRC, Washington, D.C. 20555-0001.

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

Sincerely,

(Original signed by)
Stephen J. Cahill, Chief
Reactor Projects, Branch 2
Division of Reactor Projects

Docket Nos. 50-348 and 50-364
License Nos. NPF-2 and NPF-8

Enclosure: NRC Inspection Report Nos. 50-348/99-10
and 50-364/99-10

cc w/encl: (See Page 2)

ML003684727

SNC

2

cc w/encl:

M. J. Ajluni, Licensing
Services Manager, B-031
Southern Nuclear Operating
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Electronic Mail Distribution

L. M. Stinson
General Manager, Farley Plant
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Rebecca V. Badham
SAER Supervisor
Southern Nuclear Operating Company
Electronic Mail Distribution

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Distribution w/encl:

M. Padovan, NRR
PUBLIC

OFFICE	RII:DRP	RII:DRP	RII:DRP	RII:DRP	RII:DRS	RII:DRS	RII:DRS
SIGNATURE		*	*	*			
NAME	CWRapp:sjw	TPJohnson	RKCaldwell	JBartley			
DATE	3/ /0	3/ /0	3/ /0	3/ /0	3/ /0	3/ /0	3/ /0
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-348 and 50-364

License Nos.: NPF-2 and NPF-8

Report Nos.: 50-348/99-10 and 50-364/99-10

Licensee: Southern Nuclear Operating
Company, Inc.

Facility: Farley Nuclear Plant, Units 1 and 2

Location: 7388 N. State Highway 95
Columbia, AL 36319

Dates: December 12, 1999, to January 22,
2000

Enclosure

Inspectors: T. P. Johnson, Senior Resident
Inspector
R. K. Caldwell, Resident Inspector
J. H. Bartley, Resident Inspector

Approved by: Stephen J. Cahill, Chief
Reactor Projects, Branch 2
Division of Reactor Projects

EXECUTIVE SUMMARY

Farley Nuclear Power Plant Units 1 and 2 Nuclear Regulatory Commission Inspection Report 50- 348,364/99-10

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

Operations

- Planned Unit 1 power reductions to repair secondary plant equipment were well planned and executed. Unit 2 restart from the refueling outage and power ascension activities were effectively controlled. Licensee actions for Y2K rollover were in accordance with established procedures and were well planned and controlled (Section O1.1).
- A Non-Cited Violation was documented for a licensee-identified error to ensure all required equipment was operable when changing modes during power ascension. The Unit 2E load center room cooler was not operable as required when the licensee entered Mode 4 and Mode 3 due to communication errors and deficiencies in the

licensee mode restraint tracking process (Section O2.2).

- Safety Audit and Engineering Review group activities related to the Unit 2 refueling outage and Plant Operations Review Committee reviews were inspected and found to be effective (section 07.1).

Engineering

- The inspectors witnessed the Unit 2 initial criticality and subsequent core physics testing. The pre-job briefing was conducted in accordance with licensee procedures. Operations and engineering oversight was evident throughout. Coordination with vendor personnel and site and corporate nuclear engineering was good (Section E1.1).

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at or near full power for the inspection period, except for planned power reductions to perform secondary equipment maintenance.

Unit 2 restarted from the refueling outage on December 13, and went online on December 15. The unit was ramped to full power and operated there for the remainder of the inspection period.

I. Operations

O1 Conduct of Operations

O1.1 Routine Observations of Control Room and Related Operations (60710, 71707, 72700)

The inspectors observed licensed control room operator and non-licensed operator performance during the inspection period. Operator responses to annunciator alarms and changing plant conditions were prompt. Planned Unit 1 power reductions to repair secondary plant equipment were well planned and executed. Unit 2 restart

from the refueling outage and power ascension activities were effectively controlled. Licensee actions for the Y2K rollover were in accordance with established procedures and were well planned and controlled. The inspectors did not observe any notable problems.

O2 Operational Status of Facilities and Equipment

O2.1 General Tours and Inspections of Safety Systems (71707)

The inspectors performed general tours of safety-related areas to observe the physical condition of plant equipment and structures, and to verify that safety and risk significant systems were properly maintained and aligned. Inspections focused on Unit 2 safety and risk significant systems prior to restarting from the refueling outage. Plant systems inspected included auxiliary feedwater, component cooling water, safety injection, and emergency diesel generator systems. The inspectors did not identify any alignment or maintenance issues. The inspectors also verified that selected tagouts were implemented in accordance with procedural requirements. No problems were noted.

O2.2 Unit 2 Mode Changes During the Outage (71707, 90712, and 92700)

(Closed) Unit 2 LER 50-364/99-003: TS Not Met During Mode Changes Due to 600 Volt Load Center Room Cooler Inoperable: On December 12, 1999, while in Mode 3 during startup from the Unit 2 refueling outage, a Shift Supervisor performing Mode 2 readiness reviews noted that the room cooler for the 2E 600 volt load center was tagged out of service (not available for automatic start), contrary to the Unit 2 Technical Specifications (TS). The room cooler is considered attendant equipment for the load center by the licensee's analysis, and is required to be operable for the load center to be operable. The unit had previously entered Mode 4 on December 10, and Mode 3 on December 11. TS 3.8.2.1 requires the load center (including attendant equipment) to be operable in Modes 1,2,3, and 4, or be in hot standby in six hours and cold shutdown in the next 30 hours. Further, TS 3.0.4 states that a Mode change can not be made unless the TS limiting conditions for operation are met without reliance on action statements. The licensee immediately returned the load center room cooler to service to restore compliance and wrote an Occurrence Report (OR 2-99-876) to initiate a root cause

investigation. The licensee determined that inadequate procedures and poor communications caused the error. The room cooler work had been deferred to another outage and the mode 4 restraint code deleted, but operations personnel were not instructed to clear the tagout. Additionally, return to service procedures and system checklists that could have detected the error were not required to be performed until Mode 2. The inspector reviewed associated documentation and attended root cause team meetings and PORC reviews of the error. The inspectors determined the safety significance of the error was minimized due to the short time the cooler was out of service and the ability of operations to return the fan to service (the service water flow was not out of service). The room's normal air conditioner was also in service and was available as long as offsite power was available. Corrective actions were appropriate and included a verification of other required equipment, procedure changes for the return to service checklist, and modifications to the outage schedule change process.

Contrary to TS 3.0.4 and TS 3.8.2.1, the 2E load center room cooler was not operable when the licensee entered Mode 4 and Mode 3, and the TS

action statement was not followed. Consistent with Section VII.B.1.a of the NRC Enforcement Policy, this violation is identified as Non-Cited Violation (NCV) 50-364/99-10-01, Mode Change Made with Required 600 Volt Lead Center Room Cooler Inoperable. This violation is in the licensee's corrective action program as OR 2-99-876.

O7 Quality Assurance in Operations

O7.1 Safety Audit & Engineering Review (SAER) and Plant Operations Review Committee (PORC) Activities (71707)

The inspector reviewed several SAER audit reports and attended the management debriefings. One of the audits covered the Unit 2 refueling outage activities. A number of comments and recommendations were identified. The responsible plant organization responded by writing ORs to address causes and corrective actions. The inspector also attended several PORC meetings during the period. The inspector concluded that the SAER and PORC review activities were effective.

II. Maintenance

M1 Conduct of Maintenance

M1.1 General Comments (61726 and 62707)

The inspectors witnessed or reviewed portions of the selected maintenance and surveillance test activities in progress. This included Unit 2 outage maintenance and test activities, 2A control rod drive motor generator set overhaul, Unit 2 rod control troubleshooting, and preventive maintenance on the 2C and 2B EDGs. For those maintenance and surveillance activities observed or reviewed, the inspectors determined that the activities were conducted in a satisfactory manner and that the work was properly performed in accordance with approved maintenance work orders. Personnel conducting the activities were knowledgeable of their assigned tasks. The inspectors also determined that the observed activities were performed in a satisfactory manner and met the TS requirements. Related tagouts were reviewed and determined to be adequate.

III. Engineering

E1 Conduct of Engineering

E1.1 Unit 2 Initial Criticality and Related Testing (37551 and 72700)

The inspectors witnessed the Unit 2 initial criticality and subsequent core physics testing. The pre-job briefing was conducted in accordance with licensee procedures. Operations and engineering oversight was evident during the initial criticality and core physics tests. Coordination with vendor personnel and site and corporate nuclear engineering was good.

E1.2 Maintenance Rule Expert Panel Process (37551 and 62707)

The inspector attended the licensee's Maintenance Rule Expert Panel meeting during January. Several Maintenance Rule systems and their recent performance were reviewed. Those systems which met performance expectations and goals were properly reclassified. Other systems were evaluated for potential enhanced monitoring. The inspector concluded that the panel was properly evaluating system performance.

IV. Plant Support

R1 Radiological Protection and Chemistry Controls

R1.1 Radiologically Controlled Area (RCA) Tour and Radiation Exposure (71750)

Overall cleanliness of the RCA remained good. 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. The licensee's radiation exposure reduction plan was effective in reducing cumulative personnel radiation exposures. Cumulative Unit 2 outage and 1999 personnel radiation exposures were the lowest results the licensee has ever recorded for a refueling outage and for a calendar year. The inspectors concluded that the licensee has been successful in reducing station radiation exposures.

S1 Conduct of Security and Safeguard Activities

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

The inspectors verified that portions of the site security program plan were being properly implemented. Disabled vital area doors were properly manned and controlled. Security personnel activities observed during the inspection period were well performed. Site security systems were adequate to ensure physical protection of the plant.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on January 20, 2000. The licensee acknowledged the findings presented. The licensee did not identify any materials examined during the inspection as proprietary.

Partial List of Persons Contacted

Licensee

C. L. Buck, Technical Manager
 R. M. Coleman, Outage and Modification Manager
 C. D. Collins, Operations Manager
 K. C. Dyar, Security Manager
 S. Fulmer, Plant Training and Emergency
 Preparadness Manager
 J. S. Gates, Administration Manager
 D. E. Grissette, Assistant General Manager -
 Operations
 J. R. Johnson, Maintenance Manager
 R. R. Martin, Engineering Support Manager
 C. D. Nesbitt, Assistant General Manager - Plant
 Support
 L. M. Stinson, Plant General Manager - FNP

**Partial List of Opened, Closed, and Discussed
Items**

<u>Type</u>	<u>Item Number</u>	<u>Description and Reference</u>
<u>Opened</u>		
NCV	50-364/99-10-01	Mode Change Made with Required 600 Volt Lead Center

Room Cooler
Inoperable (Section
O2.2)

Closed

NCV 50-364/99-10-01 Mode Change Made
with Required 600
Volt Lead Center
Room Cooler
Inoperable (Section
O2.2)

LER 50-364/99-003 TS Not Met
During Mode
Changes Due to
600 Volt Load
Center Room
Cooler
Inoperable
(Section O2.2)

List of Inspection Procedures (IP) Used

IP 37551: Onsite Engineering
IP 60710: Refueling Activities
IP 61726: Surveillance Observations
IP 62707: Maintenance Observations

IP 71707: Plant Operation
IP 71750: Plant Support Activities
IP 72700: Startup From Refueling
IP 90712: Onsite LER Review
IP 92700 Events Report Review