

October 7, 1999

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

SUBJECT: MID-CYCLE PLANT PERFORMANCE REVIEW (PPR) - FARLEY

Dear Mr. Morey:

On September 30, 1999, the NRC staff completed the mid-cycle Plant Performance Review (PPR) of Farley. The staff conducted these reviews for all operating nuclear power plants to integrate performance information and to plan for inspection activities at your facility over the next six months. The focus of this performance review was to identify changes in performance over the past six months, and to allocate inspection resources accordingly.

We did not identify any areas in which your performance warranted more than the core inspection program. Based on this review, we plan to conduct primarily core inspections at your facility over the next six months. However, as a result of steam generator replacement activities, we will be conducting regional initiative inspections associated with steam generator removal and installation.

Enclosure 1 contains a historical listing of plant issues, referred to as the Plant Issues Matrix (PIM), that were considered during this PPR process to arrive at an integrated review of licensee performance trends. The PIM includes items summarized from inspection reports or other docketed correspondence between the NRC and Southern Nuclear Operating Company, Inc., from October 1, 1998, to September 30, 1999. As noted above, greater emphasis was placed on those issues identified in the past six months during this performance review. The NRC does not attempt to document all aspects of licensee programs and performance that may be functioning appropriately. Rather, the NRC only documents issues that the NRC believes warrant management attention or represent noteworthy aspects of performance. In addition, the PPR may also have considered some predecisional and draft material that does not appear in the attached PIM, including observations from events and inspections that had occurred since the last NRC inspection report was issued, but had not yet received full review and consideration. Once this predecisional material is finalized it will be placed in the PDR as part of normal issuance of NRC inspection reports and other correspondence.

This letter advises you of our plans for future inspection activities at your facility so that you will have an opportunity to prepare for these inspections and to provide us with feedback on any planned inspections that may conflict with your plant activities. Enclosure 2 details our inspection plan through March 2000 to coincide with the scheduled implementation of the

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revised reactor oversight process in April 2000. Routine resident inspections are not listed due to their ongoing and continuous nature.

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at (404) 562-4520 with any questions you may have.

Sincerely,
(Original signed by
Pierce H. Skinner)

Pierce H. Skinner, Chief
Reactor Projects Branch 2
Division of Reactor Projects

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

Enclosures: 1. Plant Issues Matrix
2. Inspection Plan

cc w/encls:
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3

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SIGNATURE	<i>CR</i>	<i>GBelisle</i>	<i>KLandis</i>	<i>FChristensen</i>	<i>Barr</i>		
NAME	CWRapp:dka	GBelisle	KLandis	FChristensen	Barr		
DATE	10/5/99	10/5/99	10/6/99	10/6/99	10/7/99	10/ /99	10/ /99
COPY?	YES ☒ NO ☐	YES ☒ NO ☐	YES ☒ NO ☐	YES ☒ NO ☐	YES ☒ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐

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United States Nuclear Regulatory Commission

PLANT ISSUE MATRIX

By Primary Functional Area

Page: 1 of 7
10/05/1999 11:12:04
IR Report 3

Region II
FARLEY

Date	Source	Functional Area	ID	Type	Template Codes	Item Title
06/26/1999	1999004	Pri: OPS Sec:	NRC	POS	Pri: 1B Sec: 3A Ter:	Operator Performance
Dockets Discussed:						
05000348 FARLEY 1						Operator performance was excellent as noted during normal plant operations and in response to reactor trips on Unit 1 and on Unit 2. This strong performance included startup activities on both units, and response to a steam generator level transient on Unit 2
05000364 FARLEY 2						
06/26/1999	1999004	Pri: OPS Sec: MAINT	NRC	NEG	Pri: 3A Sec: 1B Ter: 2A	Switching tube oil coolers results in reactor trip
Dockets Discussed:						
05000348 FARLEY 1						Operator performance when switching tube oil coolers and during the load reduction, combined with procedural and training weaknesses, resulted in the Unit 1 automatic reactor trip
05000364 FARLEY 2						
04/14/1999	1999003	Pri: OPS Sec: MAINT	Licensee	POS	Pri: 3A Sec: 1B Ter:	High Voltage Switch Yard (HVS) Evolutions
Dockets Discussed:						
05000348 FARLEY 1						The licensee took conservative and appropriate actions during the observed evolution of placing the capacitor bank in service in the high voltage switch yard.
05000364 FARLEY 2						
03/29/1999	1999003	Pri: OPS Sec:	NRC	NEG	Pri: 1C Sec: 1B Ter:	Penetration Room Filtration (PRF) Operability Determination
Dockets Discussed:						
05000348 FARLEY 1						The inspector concluded that the safety evaluation of manual operator action to maintain PRF system operability was not thorough in that the normal SFO duties may have prevented the SFO from fulfilling this function.
05000364 FARLEY 2						
02/20/1999	1999001	Pri: OPS Sec:	NRC	NEG	Pri: 1A Sec: 1C Ter:	Implementation of Out of Service Monitor
Dockets Discussed:						
05000348 FARLEY 1						Improvement in Operations department personnel implementation of the risk-based equipment out of service monitor was warranted.
05000364 FARLEY 2						
02/20/1999	1999001	Pri: OPS Sec:	NRC	STR	Pri: 1B Sec: 2A Ter: 3A	Response to Instrument Air Problems
Dockets Discussed:						
05000348 FARLEY 1						The inspectors observed that control room operators responded promptly to decreasing Instrument Air pressure on Unit 1 and high Instrument Air pressure on Unit 2.
05000364 FARLEY 2						

Enclosure 1

United States Nuclear Regulatory Commission

PLANT ISSUE MATRIX

By Primary Functional Area

Region II
FARLEY

Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
02/20/1999	1999001	Pri: OPS Sec: ENG	NRC	POS	Pri: 1B Sec: 4B Ter: 5B	Response to Increased Dose Equivalent Iodine The licensee appropriately responded to the Unit 1 increased Dose Equivalent Iodine and that Chemistry and Engineering support provided accurate and timely analysis and recommendations.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
11/28/1998	1998007	Pri: OPS Sec:	NRC	NEG	Pri: 1B Sec: 3d Ter:	Response to Penetration Room Filtration Auto Start The Shift Supervisor was not informed of an automatic start of the Penetration Room Filtration system, and the licensee did not initially recognize that the event was reportable.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
10/21/1998	1998005-00	Pri: OPS Sec:	Licensee	LER	Pri: 1B Sec: 3A Ter: 3B	AUTOMATIC START OF B TRAIN PENETRATION ROOM FILTRATION DUE TO FILLING THE SPENT FUEL TRA Control room operators referred to annunciator response procedures and promptly carried out the required steps.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
10/17/1998	1998006	Pri: OPS Sec:	NRC	NEG	Pri: 1C Sec: 5A Ter:	Error in Minor Deviation The minor departure process lacked pre-implementation independent review by system specialists, quality assurance, and the onsite safety committee. The lack of these reviews contributed to an error in developing a minor departure.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
10/17/1998	1998006	Pri: OPS Sec:	NRC	STR	Pri: 1A Sec: 1B Ter: 3A	Operator Performance Operator response to abnormal and routine plant conditions was strong, including a Unit 1 automatic reactor trip, a startup of Unit 1 following a steam generator tube repair activity, a shutdown of Unit 1 for refueling, and Unit 2 partial loss of cooling to the reactor coolant pumps.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
10/17/1998	1998006-01	Pri: OPS Sec: PLTSUP	NRC	NCV	Pri: 1C Sec: 3A Ter:	Failure to Follow Procedure AOP-29.0 During Hydrogen Stack Fires Operations staff failed to assemble the fire brigade as required by AOP-29.0 for hydrogen stack fires on three separate occasions.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						

United States Nuclear Regulatory Commission

PLANT ISSUE MATRIX

By Primary Functional Area

Page: 3 of 7
10/05/1999 11:12:04
IR Report 3

Region II
FARLEY

Date	Source	Functional Area	ID	Type	Template Codes	Item Title
08/07/1999	1999005	Pri: MAINT Sec: OPS	NRC	NEG	Pri: 3A Sec: 2B Ter: 2A	Work Control during EDG Maintenance Work control issues during 1C diesel generator maintenance substantially contributed to unnecessary D/G unavailability.
Dockets Discussed:						
05000348 FARLEY 1						
05000364 FARLEY 2						
06/26/1999	1999004	Pri: MAINT Sec: ENG	NRC	NEG	Pri: 1C Sec: 4B Ter:	Maintenance Rule Program The inspectors concluded the documentation maintained by the licensee for the Maintenance Rule program was weak and that implementation of attributes in the process were inconsistent.
Dockets Discussed:						
05000348 FARLEY 1						
05000364 FARLEY 2						
05/15/1999	1999003	Pri: MAINT Sec:	Licensee	POS	Pri: 2B Sec: 3C Ter:	Equipment Outage Scheduling The implementation of 12 week rolling schedules for on-line maintenance has resulted in timely completion of most work items. As a result, the maintenance backlog has been trending downward.
Dockets Discussed:						
05000348 FARLEY 1						
05000364 FARLEY 2						
02/20/1999	1999001	Pri: MAINT Sec:	NRC	POS	Pri: 2B Sec: 2A Ter:	New maintenance schedule to reduce backlog. The licensee implemented a new 13-week rolling maintenance schedule to better utilize maintenance resources to perform the required corrective and preventative maintenance and to reduce the current maintenance backlog. This was viewed as a positive initiative and the first few weeks of program presented positive results.
Dockets Discussed:						
05000348 FARLEY 1						
05000364 FARLEY 2						
02/20/1999	1999001-01	Pri: MAINT Sec:	NRC	NCV	Pri: 2B Sec: 3A Ter: 5C	Inadequate Corrective Actions Results in Additional Scaffolding Errors The corrective actions for previously identified scaffolding construction deficiencies did not address the adequacy of the procedural guidance or the training of licensee personnel responsible for erection and inspection of scaffolding.
Dockets Discussed:						
05000364 FARLEY 2						
02/20/1999	1999001	Pri: MAINT Sec: OPS	NRC	STR	Pri: 2B Sec: 3C Ter: 1A	Implementation of 13-week Rolling Maintenance Schedule The licensee implemented a new 13-week rolling maintenance schedule designed to better utilize maintenance resources. There were positive initial results from the first few weeks of implementation.
Dockets Discussed:						
05000348 FARLEY 1						
05000364 FARLEY 2						

United States Nuclear Regulatory Commission PLANT ISSUE MATRIX

By Primary Functional Area

Page: 4 of 7
10/05/1999 11:12:04
IR Report 3

Region II
FARLEY

Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
01/09/1999	1998008	Pri: MAINT Sec:	NRC	STR	Pri: 2B Sec: 2A Ter:	Flow Accelerated Corrosion Program The licensee continued to implement an effective Flow Accelerated Corrosion program to maintain high energy carbon piping wall thickness within acceptable limits.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
01/09/1999	1998008	Pri: MAINT Sec:	NRC	STR	Pri: 2B Sec: 2A Ter: 3A	Preventive Maintenance Program The Preventive Maintenance program effectively identified potential failures of a Unit 2 control rod power supply and the Unit 1 isophase bus duct cooling fan. Corrective maintenance was performed prior to any affect on plant operations.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
11/28/1998	1998007	Pri: MAINT Sec:	NRC	POS	Pri: 2A Sec: 2B Ter: 3A	Steam Generator Inspections The licensee's steam generator inspections this outage were conducted in a conservative manner. Weaknesses in the area of previous data evaluation were identified by review of data for leaking tubes and were corrected and emphasized during site-specific training for eddy current analysts.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
11/28/1998	1998007	Pri: MAINT Sec: ENG	NRC	STR	Pri: 4B Sec: 3A Ter: 3B	Baffle Former Bolt Inspection and Replacement The licensee had conservatively and comprehensively planned the Unit 1 Baffle Former Bolt replacement. Personnel involved were knowledgeable of the process, system, and requirements associated with the activity. The inspectors noted that the licensee effectively captured and used "lessons learned" during the evolution.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
06/26/1999	1999004	Pri: ENG Sec:	NRC	NEG	Pri: 4A Sec: 1C Ter: 2A	Piping Support Mod causes loss of condenser vacuum and reactor trip A steam dump piping failure, due to a piping support modification, caused a loss of main condenser vacuum and subsequent manual reactor trip.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
10/27/1998	1998003	Pri: ENG Sec:	NRC	STR	Pri: 4B Sec: Ter:	Use of 50.59 Screenings Changes, tests and experiments were properly screened for 10 CFR 50.59 applicability, and adequately evaluated to ensure an unreviewed safety question (USQ) did not exist.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						

United States Nuclear Regulatory Commission PLANT ISSUE MATRIX

By Primary Functional Area

Region II
FARLEY

Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
10/22/1998	136	Pri: ENG Sec:	NRC	LIC	Pri: 4B Sec: 4C Ter:	Inadequate Technical Content of License Amendment Technical content of the initial license amendment (U1 - #136, and U2 - #128) request to revise and relocate TS Pressure-Temperature curves was not complete. Important information needed to approve this amendment was lacking. Also, the licensee did not clearly justify deviating from methodologies referenced in their submittals.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
08/07/1999	1999005	Pri: PLTSUP Sec:	NRC	POS	Pri: 3A Sec: 2B Ter:	Contamination Drill Response Proper radiological control practices were demonstrated during a Contamination Drill and the drill effectively evaluated the ability of personnel to respond.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
06/26/1999	1999004-01	Pri: PLTSUP Sec:	NRC	NCV	Pri: Sec: Ter:	Inadequate Procedures to Verify Manual Hose Station Pressure Restricting Valve Flow and Pressure Require
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
03/10/1999	1999009	Pri: PLTSUP Sec:	NRC	POS	Pri: 2A Sec: 2B Ter:	Security Equipment The licensee's access control equipment, perimeter intrusion detection system, and closed circuit television camera assessment met the requirements outlined in the Physical Security Plan.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
03/10/1999	1999009-02	Pri: PLTSUP Sec:	NRC	VIO IV	Pri: 1C Sec: 3A Ter: 3C	Failure to Intercept and Engage Mock Adversary Force Apparent Violation, EEI 50-348, 364/99-09-01, was identified in March 1999, due to the existing design basis threat response strategy. Response objectives of the Security Plan were not met in that security force members failed to intercept and engage a mock adversary force to protect against radiological sabotage. The Apparent Violation was later identified as a violation of 10 CFR 73.55 and the Physical Security Plan, based upon the licensee's initial corrective action to restore compliance (i.e., to implement compensatory measures, on March 11, 1999, was not implemented in a reasonable amount of time. It was 24 hours after the violation was identified before compensatory measures were in place.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						
12/11/1998	1998014	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	Actions to improve security. The licensee took appropriate actions to minimize potential tampering and the capability to use hand tools to defeat locks.
Dockets Discussed: 05000348 FARLEY 1 05000364 FARLEY 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX
By Primary Functional Area

Page: 6 of 7
10/05/1999 11:12:04
IR Report 3

Region II
FARLEY

Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
10/17/1998	1598006	Pri: PLTSUP Sec:	NRC	NEG	Pri: 3A Sec: 3C Ter:	Inattentive Security Guards Two instances of inattentive Security Guards were observed. These appeared to be isolated cases.
Dockets Discussed:						
05000348 FARLEY 1						
05000364 FARLEY 2						

United States Nuclear Regulatory Commission PLANT ISSUE MATRIX

By Primary Functional Area

Legend

Type Codes:

BU	Bulletin
CDR	Construction
DEV	Deviation
EE:	Escalated Enforcement Item
IF:	Inspector follow-up item
LER	Licensee Event Report
LIC	Licensing Issue
MISC	Miscellaneous
MV	Minor Violation
NCV	Non-Cited Violation
NEG	Negative
NOED	Notice of Enforcement Discretion
NON	Notice of Non-Conformance
OTHR	Other
P21	Part 21
POS	Positive
SGI	Safeguard Event Report
STR	Strength
URI	Unresolved Item
VIO	Violation
WK	Weakness

Template Codes:

1A	Normal Operations
1B	Operations During Transients
1C	Programs and Processes
2A	Equipment Condition
2B	Programs and Processes
3A	Work Performance
3B	KSA
3C	Work Environment
4A	Design
4B	Engineering Support
4C	Programs and Processes
5A	Identification
5B	Analysis
5C	Resolution

ID Codes:

NRC	NRC
Self	Self-Revealed
Licensee	Licensee

Functional Areas:

OPS	Operations
MAINT	Maintenance
ENG	Engineering
PLTSUP	Plant Support
OTHER	Other

EEIs are apparent violations of NRC Requirements that are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action" (Enforcement Policy). NUREG-1600. However, the NRC has not reached its final enforcement decision on the issues identified by the EEIs and the PIM entries may be modified when the final decisions are made.

URIs are unresolved items about which more information is required to determine whether the issue in question is an acceptable item, a deviation, a nonconformance, or a violation. A URI may also be a potential violation that is not likely to be considered for escalated enforcement action. However, the NRC has not reached its final conclusions on the issues, and the PIM entries may be modified when the final conclusions are made.

FARLEY INSPECTION PLAN

INSPECTION PROCEDURE/ TEMPORARY INSTRUCTION	TITLE/PROGRAM AREA	NUMBER OF INSPECTORS	PLANNED INSPECTION DATES	TYPE OF INSPECTION - COMMENTS
49001	Erosion/Corrosion Programs	1	October, 1999	Regional Initiative
83750	Occupational Radiation Exposure	1	October, 1999	Core
73753	Inservice Inspection	1	November, 1999	Core
84750 86750	Effluent & Environmental Monitoring Wastewater Management and Transportation	1	November, 1999	Core
50001	Steam Generator Replacement - IM5	1	November, 1999	Regional Initiative
50001	Steam Generator Replacement	1	December, 1999	Regional Initiative
50001 81700	Steam Generator Replacement Physical Security Program	1	January, 2000	Regional Initiative Core
50001	Steam Generator Replacement - RP (IM6)	1	January, 2000	Regional Initiative
50001	Steam Generator Replacement	1	February, 2000	Regional Initiative
50001	Steam Generator Replacement - IM2	1	February, 2000	Regional Initiative
50001	Steam Generator Replacement - IM8	1	February, 2000	Regional Initiative
71001	Requalification Program Evaluation	1	February, 2000	Core
82701	Status of EP Program	1	March, 2000	Core
50001	Steam Generator Replacement - IM	1	March, 2000	Regional Initiative
50001	Steam Generator Replacement - IM4	1	March, 2000	Regional Initiative

INSPECTION PROCEDURE/ TEMPORARY INSTRUCTION	TITLE/PROGRAM AREA	NUMBER OF INSPECTORS	PLANNED INSPECTION DATES	TYPE OF INSPECTION - COMMENTS
50001	Steam Generator Replacement - RP (IM6)	1	March, 2000	Regional initiative
50001	Steam Generator Replacement - Security (IM10)	3	March, 2000	Regional Initiative
50001	Steam Generator Replacement - IM9	1	March, 2000	Regional Initiative
50001	Steam Generator Replacement - IM11	1	April, 2000	Regional Initiative