



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

March 3, 2008

Southern Nuclear Operating Company, Inc.
ATTN: Mr. J. Randy Johnson
Vice President - Farley
Joseph M. Farley Nuclear Plant
7388 N. State Highway 95
Columbia, AL 36319

SUBJECT: ANNUAL ASSESSMENT LETTER – JOSEPH M. FARLEY NUCLEAR PLANT
(NRC INSPECTION REPORT 05000364/2008001 AND 05000348/2008001)

Dear Mr. Johnson:

On February 5, 2008, the NRC staff completed its performance review of Joseph M. Farley Nuclear Plant. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2007. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at Farley. This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only – Security Related Information" will include the security cornerstone performance review and resultant inspection plan.

Overall, Farley Units 1 and 2 operated in a manner that preserved public health and safety and met all cornerstone objectives with moderate degradation in safety performance. Unit 1 plant performance for the first and second quarters of the assessment cycle was within the Licensee Response column of the NRC's Action Matrix. The Mitigating Systems Performance Index (MSPI), Cooling Water Systems PI crossed the threshold from Green to White in the third quarter due to the failure of Component Cooling Water system pump breakers on two separate occasions. These breaker failures were the subject of an NRC Augmented Inspection Team inspection. The inspection results are documented in NRC inspection report 05000348,364/2007010. Also, a White Parallel Performance Indicator finding was opened in the third quarter due to continuing problems with evaluating safety-related breaker failures. This was identified as a result of an NRC Supplemental Inspection for the MSPI, Cooling Water Systems PI which crossed the threshold from Green to White in the second quarter of 2006. The results of this inspection are documented in inspection report 05000348,364/2007008. As a result of the White PI and the White finding, Unit 1 moved into the Degraded Cornerstone column of the NRC's Action Matrix in the third quarter.

Unit 2 plant performance was within the Licensee Response column of the NRC's Action Matrix for the first quarter of the assessment cycle. In the third quarter, a Yellow finding in the Mitigating Systems Cornerstone was identified for the failure of a Residual Heat Removal (RHR) containment sump suction valve not fully opening during surveillance testing on two separate occasions. This was the subject of an NRC Special Inspection. The inspection results are documented in NRC inspection report 05000348,364/2007009. As a result of this Yellow finding, Unit 2 moved into the Degraded Cornerstone column of the NRC's Action Matrix in the

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third quarter. The MSPI, RHR PI crossed the threshold from Green to White in the second quarter due to the RHR valve failures. However, this White PI was not considered in Unit 2's performance assessment as it relates to the NRC Action Matrix to avoid double counting of this issue. Also, a White Parallel Performance Indicator finding was opened in the third quarter as described above for Unit 1. This White finding did not affect Unit 2's performance assessment; therefore, Unit 2 remained in the Degraded Cornerstone column of the NRC's Action Matrix for the third and fourth quarters.

When we have been notified of your readiness, the NRC will conduct a supplemental inspection for both Unit 1 and Unit 2 using Inspection Procedure 95002, "Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area," in addition to routine reactor oversight program (ROP) baseline inspections. The 95002 inspection will include the inspection activities for the Unit 2 White MSPI, RHR PI.

The enclosed inspection plan details the inspections, less those related to security, scheduled through June 30, 2009. In addition, we will be conducting NRC Temporary Instructions 171 and 172, initial reactor operator licensing examinations, and an in-office review of testing results for both Unit 1 and Unit 2 containment recirculation sump modifications. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the mid-cycle review.

Based on both Units being in the Degraded Cornerstone of the NRC Action Matrix, a review was conducted to determine if additional inspection was warranted in the area of Identification and Resolution of Problems. Weaknesses were identified in the Corrective Action Program as indicated by the lack of thorough evaluation of multiple safety-related breaker failures and failure to promptly correct a condition adverse to quality with the RHR suction valves that resulted in a Yellow finding. The NRC has concluded that it is appropriate to conduct an additional Identification and Resolution of Problems inspection during the current biennial period in accordance with the Reactor Oversight Process.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made 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).

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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 Scott M. Shaeffer at (404) 562-4521 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Victor M. McCree
Acting Regional Administrator

Docket Nos.: 50-348 and 50-364

License Nos.: NPF-2 and NPF-8

Enclosure: Farley Inspection/Activity Plan

cc w/encl: (See page 4)

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cc w/encl:
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Farley
Inspection / Activity Plan
03/01/2008 - 06/30/2009

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	EB2-TFP - TRIENNIAL FIRE PROTECTION		5			
1,2	IP 7111105T	Fire Protection [Triennial]		03/10/2008	03/14/2008	Baseline Inspections
1,2	IP 7111105T	Fire Protection [Triennial]		03/31/2008	04/04/2008	Baseline Inspections
	OL RQ - REQUAL INSPECTION		2			
1,2	IP 7111111B	Licensed Operator Requalification Program		03/03/2008	03/07/2008	Baseline Inspections
	PSB1-EP - EP EXERCISE		3			
1,2	IP 7111401	Exercise Evaluation		03/10/2008	03/14/2008	EP Baseline Inspection
1,2	IP 71151-EP01	Drill/Exercise Performance		03/10/2008	03/14/2008	Baseline Inspections
1,2	IP 71151-EP02	ERO Drill Participation		03/10/2008	03/14/2008	Baseline Inspections
1,2	IP 71151-EP03	Alert & Notification System		03/10/2008	03/14/2008	Baseline Inspections
	PB2-SUPP - 95002 SUPPLEMENTAL INSPECTION		5			
1,2	IP 95002	Inspection For One Degraded Cornerstone Or Any Three White Inputs In A Strategic Performance		05/05/2008	05/16/2008	Supplemental Program
	TSB-PI&R - PREP TRIP-PROBLEM ID AND RESOL		1			
1,2	IP 71152B	Identification and Resolution of Problems		07/28/2008	08/01/2008	Baseline Inspections
	PSB1-RP - RADIATION PROTECTION PREINSPECTION VISIT		1			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		08/25/2008	08/29/2008	Baseline Inspections
	TSB-PI&R - PROBLEM IDENTIFICATION AND RESOLUTION		6			
1,2	IP 71152B	Identification and Resolution of Problems		09/08/2008	09/12/2008	Baseline Inspections
1,2	IP 71152B	Identification and Resolution of Problems		09/22/2008	09/26/2008	Baseline Inspections
	OL EXAM - INITIAL EXAM PREP		3			
1	V23288	FARLEY/NOVEMBER 2008 EXAM AT POWER FACILITIES		09/29/2008	10/03/2008	Not Applicable
	EB3-ISI - UNIT 2 - ISI		1			
2	IP 7111108P	Inservice Inspection Activities - PWR		10/20/2008	10/24/2008	Baseline Inspections
	PSB1-RP - RADIATION PROTECTION OCCUPATIONAL WK1		2			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		10/20/2008	10/24/2008	Baseline Inspections
1,2	IP 7112102	ALARA Planning and Controls		10/20/2008	10/24/2008	Baseline Inspections
1,2	IP 7112202	Radioactive Material Processing and Transportation		10/20/2008	10/24/2008	Baseline Inspections
1,2	IP 71151-OR01	Occupational Exposure Control Effectiveness		10/20/2008	10/24/2008	Baseline Inspections
1,2	IP 71151-PR01	RETS/ODCM Radiological Effluent		10/20/2008	10/24/2008	Baseline Inspections
	OL EXAM - INITIAL EXAM - WEEK 1		3			
1	V23288	FARLEY/NOVEMBER 2008 EXAM AT POWER FACILITIES		10/27/2008	10/31/2008	Not Applicable
	OL EXAM - INITIAL EXAM - WEEK 2		3			
1	V23288	FARLEY/NOVEMBER 2008 EXAM AT POWER FACILITIES		11/03/2008	11/07/2008	Not Applicable
	PSB1-RP - RADIATION PROTECTION OCCUPATIONAL WK2		3			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		11/03/2008	11/07/2008	Baseline Inspections

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Farley
Inspection / Activity Plan
03/01/2008 - 06/30/2009

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	PSB1-RP	- RADIATION PROTECTION OCCUPATIONAL WK2	3			
1,2	IP 7112102	ALARA Planning and Controls		11/03/2008	11/07/2008	Baseline Inspections
1,2	IP 7112202	Radioactive Material Processing and Transportation		11/03/2008	11/07/2008	Baseline Inspections
1,2	IP 71151-OR01	Occupational Exposure Control Effectiveness		11/03/2008	11/07/2008	Baseline Inspections
1,2	IP 71151-PR01	RETS/ODCM Radiological Effluent		11/03/2008	11/07/2008	Baseline Inspections
	EB3TI172	- TI-172	1			
1,2	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds		11/17/2008	11/21/2008	Generic Safety Inspectio
	EB3-HS	- HEAT SINK	2			
1,2	IP 7111107B	Heat Sink Performance		12/01/2008	12/05/2008	Baseline Inspections
	PB2TI171	- TI-171 - B.5.B PHASE 2&3	3			
1,2	IP 2515/171	Verification of Site Specific Implementation Of B.5.b Phase 2 & 3 Mitigating Strategies		12/08/2008	12/12/2008	Generic Safety Inspectio
	PSB1-RP	- RADIATION PROTECTION PREINSPECTION VISIT	1			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		01/05/2009	01/07/2009	Baseline Inspections
	EB1-CDBI	- COMPONENT DESIGN BASIS INSPECTION	8			
1,2	IP 7111121	Component Design Bases Inspection		01/12/2009	01/16/2009	Baseline Inspections
1,2	IP 7111121	Component Design Bases Inspection		01/26/2009	01/30/2009	Baseline Inspections
1,2	IP 7111121	Component Design Bases Inspection		02/09/2009	02/13/2009	Baseline Inspections
1,2	IP 7111121	Component Design Bases Inspection		02/23/2009	02/27/2009	Baseline Inspections
	PSB1-RP	- RADIATION PROTECTION PUBLIC CORNERSTONE	4			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		02/02/2009	02/06/2009	Baseline Inspections
1,2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		02/02/2009	02/06/2009	Baseline Inspections
1,2	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		02/02/2009	02/06/2009	Baseline Inspections
1,2	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program		02/02/2009	02/06/2009	Baseline Inspections
	EB3-ISI	- UNIT 1 ISI	1			
1	IP 7111108P	Inservice Inspection Activities - PWR		04/06/2009	04/10/2009	Baseline Inspections