



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

March 4, 2009

Mr. J. Randy Johnson  
Vice President - Farley  
Southern Nuclear Operating Company, Inc.  
7388 North State Highway 95  
Columbia, AL 36319

SUBJECT: ANNUAL ASSESSMENT LETTER – JOSEPH M. FARLEY NUCLEAR PLANT  
(NRC INSPECTION REPORT 05000348/2009001 AND 05000364/2009001)

Dear Mr. Johnson:

On February 10, 2009, 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, 2008, through December 31, 2008. 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 your facility.

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 fully met all cornerstone objectives. Plant performance for the most recent quarter for Unit 1 was within the Regulatory Response column of the NRC's Action Matrix. The Mitigating Systems Performance Index (MSPI), Emergency AC Systems PI crossed the threshold from Green to White in the first quarter 2008 due to the failure of the 1B Emergency Diesel Generator (EDG) on two separate occasions. Also, a White finding in the Mitigating Systems Cornerstone was issued in the third quarter of 2008 for the 1B EDG exhaust header failure. This White finding is not being considered in the NRC 2008 assessment to avoid double counting with the White PI. A supplemental inspection was conducted for both the White PI and the White finding during the third quarter 2008 using Inspection Procedure 95001 "Inspection For One Or Two White Inputs In A Strategic Performance Area." Based on completion of this supplemental inspection and all other inspection findings and PIs being classified as having very low safety significance (Green), we plan to conduct reactor oversight process (ROP) baseline inspections at Unit 1. While Unit 1 plant performance for the most recent quarter is within the Regulatory Response column of the Action Matrix, there were safety significant inspection findings and performance indicators from the first three quarters of the assessment cycle. These issues had placed Unit 1 in the Degraded Cornerstone column of the NRC's Action Matrix since the third quarter of 2007. Specifically, the MSPI, Cooling Water Systems PI crossed the threshold from Green to White in the third quarter of 2007 due to the failure of Component Cooling Water

system pump breakers. Also, a White Parallel PI finding was opened in the third quarter of 2007 due to continuing problems with evaluating safety-related breaker failures. The White MSPI, Cooling Water Systems PI, the White Parallel PI finding, and the White MSPI, Emergency AC Systems PI were counted on the NRC's Action Matrix for the first and second quarter of 2008. As a result, Unit 1 remained in the Degraded Cornerstone column of the NRC's Action Matrix. A Supplemental Inspection was conducted for both the White MSPI, Cooling Water Systems PI and White Parallel PI finding during the second quarter 2008 using Inspection Procedure 95002 "Inspection For One Degraded Cornerstone Or Any Three White Inputs In a Strategic Performance Area." Based on completion of this supplemental inspection, the White Parallel PI finding was closed.

Unit 2 plant performance was within the Licensee Response column of the NRC's Action Matrix for the most recent quarter based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct ROP baseline inspections at Unit 2. While Unit 2 plant performance for the most recent quarter is within the Licensee Response column of the NRC's Action Matrix, there were safety significant inspection findings and performance indicators from the first three quarters of the assessment cycle. These issues had placed Unit 2 in the Degraded Cornerstone column of the NRC's Action Matrix since third quarter 2007. Specifically, 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. These RHR valve failures also cause the MSPI, RHR PI to cross the threshold from Green to White in the second quarter 2007. However, this White PI was not considered in Unit 2's performance assessment to avoid double counting of this issue. Also, a White Parallel PI finding was opened in the third quarter of 2007 as described above for Unit 1. As a result, Unit 2 remained in the Degraded Cornerstone column of the NRC's Action Matrix for the first and second quarters of 2008. A supplemental inspection was conducted for the Yellow finding, the White MSPI, RHR PI, and the White Parallel PI finding during the second quarter 2008 using Inspection Procedure 95002 "Inspection For One Degraded Cornerstone Or Any Three White Inputs In a Strategic Performance Area." Based on the completion of this supplemental inspection, the Yellow finding and the White Parallel PI finding were closed.

Additionally, the significance of failing to issue tone alert radios to multiple addresses in the 10 mile emergency planning zone is still under NRC review as part of the Significance Determination Process which, when finalized, may change the current assessment of your plant's performance. This issue is applicable to both Units 1 and 2.

In addition to ROP baseline inspections, we also plan on performing NRC Temporary Instructions 2515/172, Reactor Coolant System Dissimilar Metal Butt Welds, 2515/173, Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative, and 2515/175, Emergency Response Organization, Drill/Exercise Performance Indicator, Program Review, inspection of your independent spent fuel storage installation, and conducting reactor operator licensing examinations.

The enclosed inspection plan details the inspection, less those related to physical protection scheduled through June 30, 2010. The enclosed 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.

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).

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

Sincerely,

*/RA/*

Luis A. Reyes  
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)

SNC

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cc w/encl:

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**Farley**  
**Inspection / Activity Plan**  
**03/01/2009 - 06/30/2010**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>EB3-ISI - UNIT 1 INSERVICE INSPECTION</b>		<b>1</b>
1	04/06/2009	04/10/2009	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>EB3TI172 - REACTOR COOLANT SYSTEM DISSIMILIAR METAL</b>		<b>1</b>
1	04/06/2009	04/10/2009	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds	
			<b>PSB1-RP - RADIATION PROTECTION ACCESS (OUTAGE)</b>		<b>1</b>
1,2	04/06/2009	04/10/2009	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
1,2	04/06/2009	04/10/2009	IP 7112101	Access Control to Radiologically Significant Areas	
1,2	04/06/2009	04/10/2009	IP 71151	Performance Indicator Verification	
			<b>PSB1EP - EP REVIEW PI AND PLAN CHANGES</b>		<b>1</b>
1,2	04/27/2009	05/01/2009	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1,2	04/27/2009	05/01/2009	IP 71151	Performance Indicator Verification	
			<b>ISFSI - ISFSI OPERATIONAL INSPECTION</b>		<b>2</b>
1,2	07/01/2009	12/31/2009	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			<b>PSB1-RP - RADIATION PROTECTION PUBLIC CORNERSTONE</b>		<b>3</b>
1,2	08/10/2009	08/14/2009	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	
1,2	08/10/2009	08/14/2009	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems	
1,2	08/10/2009	08/14/2009	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program	
1,2	08/10/2009	08/14/2009	IP 71151	Performance Indicator Verification	
			<b>PSB1EP - EMERGENCY PREPAREDNESS INSPECTION</b>		<b>1</b>
1,2	09/14/2009	09/18/2009	IP 2515/175	Emergency Response Organization, Drill/Exercise Performance Indicator, Program Review	
1,2	09/14/2009	09/18/2009	IP 7111402	Alert and Notification System Testing	
1,2	09/14/2009	09/18/2009	IP 7111403	Emergency Response Organization Augmentation Testing	
1,2	09/14/2009	09/18/2009	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1,2	09/14/2009	09/18/2009	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1,2	09/14/2009	09/18/2009	IP 71151	Performance Indicator Verification	
			<b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b>		<b>5</b>
1	11/02/2009	11/06/2009	IP 71152B	Identification and Resolution of Problems	
1	11/16/2009	11/20/2009	IP 71152B	Identification and Resolution of Problems	
			<b>INSP - MODS/50/59 INSPECTION</b>		<b>3</b>
1	01/25/2010	01/29/2010	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
1	02/01/2010	02/05/2010	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
			<b>OL RQ - REQUAL INSPECTION</b>		<b>2</b>
1,2	02/01/2010	02/06/2010	IP 7111111B	Licensed Operator Requalification Program	
			<b>INIT - INITIAL EXAM PREP</b>		<b>5</b>
1	02/08/2010	02/12/2010	V23323	FARLEY/MARCH 2010 EXAM AT POWER FACILITIES	

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

Enclosure

**Farley**  
**Inspection / Activity Plan**  
**03/01/2009 - 06/30/2010**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>OL EXAM - INITIAL EXAM - WEEK 1</b>		<b>6</b>
1	03/01/2010	03/05/2010	V23323	FARLEY/MARCH 2010 EXAM AT POWER FACILITIES	
			<b>OL EXAM - INITIAL EXAM - WEEK 2</b>		<b>6</b>
1	03/15/2010	03/19/2010	V23323	FARLEY/MARCH 2010 EXAM AT POWER FACILITIES	
			<b>PSB1EP - EMERGENCY PREPAREDNESS EXERCISE</b>		<b>3</b>
1,2	04/05/2010	04/09/2010	IP 7111401	Exercise Evaluation	
1,2	04/05/2010	04/09/2010	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1,2	04/05/2010	04/09/2010	IP 71151	Performance Indicator Verification	
			<b>PSB1-RP - RP OCCUPATIONAL BASELINE WEEK1</b>		<b>2</b>
1,2	04/12/2010	04/16/2010	IP 7112101	Access Control to Radiologically Significant Areas	
1,2	04/12/2010	04/16/2010	IP 7112102-7112102R	ALARA - Required	
1,2	04/12/2010	04/16/2010	IP 7112202	Radioactive Material Processing and Transportation	
1,2	04/12/2010	04/16/2010	IP 71151	Performance Indicator Verification	
			<b>PSB1-RP - RP OCCUPATIONAL BASELINE WEEK 2</b>		<b>2</b>
1,2	04/26/2010	04/30/2010	IP 7112101	Access Control to Radiologically Significant Areas	
1,2	04/26/2010	04/30/2010	IP 7112102-7112102R	ALARA - Required	
1,2	04/26/2010	04/30/2010	IP 7112202	Radioactive Material Processing and Transportation	
1,2	04/26/2010	04/30/2010	IP 71151	Performance Indicator Verification	

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