Charles R. Pierce Regulatory Affairs Director Southern Nuclear Operating Company, Inc. 40 Inverness Center Parkway Post Office Box 1295 Birmingham, AL 35201

Tel 205.992.7872 Fax 205.992.7601



February 26, 2014

Docket Nos.: 50-348

50-364

NL-14-0179

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D. C. 20555-0001

Joseph M. Farley Nuclear Plant - Units 1 and 2
Second Six-Month Status Report of the Implementation of the
Requirements of the Commission Order with Regard to
Mitigation Strategies for Beyond-Design-Basis External Events (EA-12-049)

References:

- NRC Order Number EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 12, 2012.
- NRC Interim Staff Guidance JLD-ISG-2012-01, Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, Revision 0, dated August 29, 2012.
- 3. NEI 12-06, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, Revision 0, dated August 2012.
- 4. Joseph M. Farley Nuclear Plant Units 1 and 2 Initial Status Report in Response to Commission Order with Regard to Mitigation Strategies for Beyond-Design-Basis External Events (EA-12-049), dated October 23, 2012.
- Joseph M. Farley Nuclear Plant Units 1 and 2 Overall Integrated Plan in Response to Commission Order with Regard to Mitigation Strategies for Beyond-Design-Basis External Events (EA-12-049), dated February 27, 2013.

Ladies and Gentlemen:

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued an order (Reference 1) to Southern Nuclear Operating Company. Reference 1 was immediately effective and directs the Joseph M. Farley Nuclear Plant - Units 1 and 2 (FNP) to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event. Specific requirements are outlined in Attachment 2 of Reference 1.

Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 2) and an overall integrated plan pursuant to Section IV, Condition C.1.a of Reference 1. Reference 2 endorses industry guidance document NEI 12-06, Revision 0 (Reference 3) with clarifications and exceptions identified in Reference 2.

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Reference 4 provided the FNP initial status report regarding mitigation strategies. Reference 5 provided the FNP overall integrated plan.

Reference 1 requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference 3 provides direction regarding the content of the status reports. The purpose of this letter is to provide the second six-month status report pursuant to Section IV, Condition C.2, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. The enclosed report provides an update of milestone accomplishments since the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

This letter contains no new NRC commitments. If you have any questions, please contact John Giddens at 205.992.7924.

Mr. C. R. Pierce states he is the Regulatory Affairs Director for Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and, to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

C. R. Pierce

Regulatory Affairs Director

C. R. Pierce

CRP/JMG/RCW

Sworn to and subscribed before me this day of levery, 2014.

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My commission expires: 20/8/2017

Enclosure: Joseph M. Farley Nuclear Plant - Units 1 and 2

Second Six-Month Status Report of the Implementation of the

Requirements of the Commission Order with Regard to

Mitigation Strategies for Beyond-Design-Basis External Events (EA-12-049)

cc: Southern Nuclear Operating Company

Mr. S. E. Kuczynski, Chairman, President & CEO

Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer

Ms. C. A. Gayheart, Vice President – Farley

Mr. B. L. Ivey, Vice President - Regulatory Affairs

Mr. D. R. Madison, Vice President - Fleet Operations

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U. S. Nuclear Regulatory Commission

Mr. E. Leeds, Director of the Office of Nuclear Reactor Regulations

Mr. V. M. McCree, Regional Administrator

Mr. G. E. Miller, NRR Senior Project Manager - Farley

Mr. P. K. Niebaum, Senior Resident Inspector - Farley

Ms. J. A. Kratchman, NRR/JLD/PMB

Mr. E. E. Bowman, NRR/DPR/PGCB

Alabama Department of Public Health

Dr. D. E. Williamson, State Health Officer

Joseph M. Farley Nuclear Plant - Units 1 and 2
Second Six-Month Status Report of the Implementation of the
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Enclosure

Joseph M. Farley Nuclear Plant - Units 1 and 2
Second Six-Month Status Report of the Implementation of the
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Joseph M. Farley Nuclear Plant - Units 1 and 2 Second Six-Month Status Report of the Implementation of the Requirements of the Commission Order with Regard to Mitigation Strategies for Beyond-Design-Basis External Events (EA-12-049)

1 Introduction

Joseph M. Farley Nuclear Plant - Units 1 and 2 developed an Overall Integrated Plan (Reference 1 of this enclosure), documenting the diverse and flexible strategies (FLEX), in response to Reference 2. This attachment provides an update of milestone accomplishments since submittal of the last status report including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

2 Milestone Accomplishments

In addition to the submittal of status reports, the following milestone(s) directly related to FLEX implementation have been completed since the development of the Overall Integrated Plan (Reference 1), and are current as of December 31, 2013:

None

3 Milestone Schedule Status

The following provides an update to Attachment 2 of the Overall Integrated Plan. It provides the activity status of each item, and whether the expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed. The revised milestone target completion date does not impact the Order implementation date.

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Submit 60 Day Status Report	Oct 2012	Complete	N/A
Submit Overall Integrated Plan	Feb 2013	Complete	N/A
Unit 2 1st RFO	May 2013	Complete	N/A
Submit 6 Month Status Report	Aug 2013	Complete	N/A
Initiate Phase 2 Equipment Procurement	Sep 2013	Complete	N/A
Develop Operational Procedure Changes	Dec 2013	Started	Nov 2014
Develop Modifications	Jan 2014	Started	Nov 2014
Submit 6 Month Status Report	Feb 2014	Complete	N/A
Develop Training Material	Mar 2014	Started	
Develop Strategies (Playbook) with RRC	June 2014	Started	
Submit 6 Month Status Report	Aug 2014	Not Started	
Phase 2 Equipment Procurement Complete	(new)	Started	Aug 2014
Issue FSGs	Sep 2014	Not Started	
Implement Training	Nov 2014	Started	
Unit 2 Walk-throughs or Demonstrations	Nov 2014	Not Started	
Unit 2 Implementation Outage *	Nov 2014	Not Started	
Submit 6 Month Status Report	Feb 2015	Not Started	
Unit 1 Walk-throughs or Demonstrations	Apr 2015	Not Started	
Unit 1 Implementation Outage *	Apr 2015	Not Started	
Submit Completion Report	Spring 2015	Not Started	

^{*}Full compliance after second listed refueling outage

4 Changes to Compliance Method

There are no changes to the compliance method as documented in the Overall Integrated Plan (Reference 1 of this enclosure).

5 Need for Relief/Relaxation and Basis for the Relief/Relaxation

Southern Nuclear Operating Company will be providing a request for relief for the Joseph M. Farley Nuclear Plant - Units 1 and 2 by separate letter.

6 Open Items from Overall Integrated Plan and Interim Staff Evaluation

The following tables provide a summary and status of any open items documented in the Overall Integrated Plan and any open items documented in the Interim Staff Evaluation (ISE).

Overall Integrated Plan Open Item	Status
Structure, content and details of the Regional SAFER Team developing Playbook.	Pilot Response Center playbook will be determined

	Interim Staff Evaluation Open Item	Status
None		N/A

7 Potential Interim Staff Evaluation Impacts

There are no potential impacts to the Interim Staff Evaluation identified at this time except for those identified in Section 6.

8 References

The following references support the updates to the Overall Integrated Plan described in this enclosure.

- Joseph M. Farley Nuclear Plant Units 1 and 2 "Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)," dated February 27, 2013.
- 2. NRC Order Number EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012.
- 3. NRC Letter, Joseph M. Farley Nuclear Plant Units 1 and 2 Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC NOS. MF0716 and MF0717), dated January 17, 2014

9 Other Additional Information

The following information provides clarity or corrections to the Overall Integrated Plan but do not constitute a change in strategy:

- A structure to provide protection of the FLEX equipment will be constructed to meet the
 requirements identified in NEI 12-06 Section 11. Construction of the FLEX Storage Facility
 will be completed for 2 sets of FLEX equipment by the date the first unit will reach the Order
 EA-12-049 implementation completion due date.
- A 200% onsite 600V AC FLEX diesel generator will energize the same train of electrical power ("A" or "B") on both units. Both trains of station Class 1E DC power (A and B) on both Farley Unit 1 and Unit 2 will be energized via installed battery chargers powered by this 600V AC FLEX diesel generator.
- 3. A 200% onsite 480V AC FLEX diesel generator will be used to power the Mode 1-4 RCS FLEX pump or Mode 5-6 RCS FLEX pump on both Farley Unit 1 and Unit 2.
- 4. No Phase 1 or Phase 2 coping strategies are required for maintaining containment integrity if the BDBEE occurs while the plant is operating in Modes 1 through 4.
- 5. A Phase 1 coping strategies will be required for maintaining containment integrity if the BDBEE occurs during operating Modes 5 and 6 with steam generator heat removal not available. Containment venting utilizing the ILRT penetration or acceptable alternative provides this containment coping strategy.
- 6. A coping strategy is required to address room heat and hydrogen accumulation for the Battery and DC Equipment Room. The coping strategy to address both issues during Phase 1 requires seven doors be opened at one hour after the BDBEE. For Phase 2, deploying three portable fans - one with a trunk from the floor above - at eight hours is adequate to both maintain the Battery and DC Equipment Room temperatures and mitigate hydrogen accumulation.
- 7. SNC is in the process of evaluating Phase 3 strategies and timing; any changes in Phase 3 strategies will be reflected in a future six month status report.