

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



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50-425

NL-15-0245

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

Vogtle Electric Generating Plant – Units 1 and 2  
Fourth 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:

1. 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.
2. 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. Vogtle Electric Generating 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.
5. Vogtle Electric Generating Plant - Units 1 and 2 Third 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) dated August 26, 2014, including Enclosure 2 – Vogtle Units 1&2 Mitigation Strategies (FLEX) Overall Integrated Implementation Plan (OIP), Revision 4.

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 Vogtle Electric Generating Plant - Units 1 and 2 (VEGP) 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.

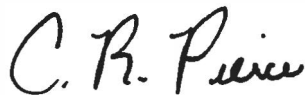
Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 2) and an overall integrated plan pursuant to Section IV, Condition C.1.a of Reference 1. Reference 2 endorses industry guidance document NEI 12-06, Revision 0, (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided the initial VEGP overall integrated plan (OIP). A revised OIP was submitted with the fall 2014 six-month update (Reference 5).

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 fourth six-month status report pursuant to Section IV, Condition C.2, of Reference 1, delineating progress made in implementing the requirements of Reference 1. The enclosed report provides an update of milestone accomplishments and schedule adjustments since the last status report.

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,

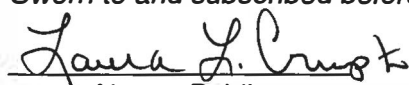


C. R. Pierce  
Regulatory Affairs Director

CRP/JMG/GLS



Sworn to and subscribed before me this 26 day of February, 2015.

  
Notary Public

My commission expires: 10-8-2017

Enclosures: Vogtle Electric Generating Plant - Units 1 and 2 Fourth Six-Month Status Report Regarding Mitigation Strategies for Beyond-Design-Basis External Events (EA-12-049)

U. S. Nuclear Regulatory Commission

NL-15-0245

Page 3

cc: Southern Nuclear Operating Company

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

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

Mr. D. R. Madison, Vice President – Vogtle

Mr. M. D. Meier, Vice President – Regulatory Affairs

Mr. B. J. Adams, Vice President - Engineering

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

Mr. G. W. Gunn, Regulatory Affairs Manager – Vogtle

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U. S. Nuclear Regulatory Commission

Mr. W. M. Dean, Director of the Office of Nuclear Reactor Regulations

Mr. V. M. McCree, Regional Administrator

Mr. R. E. Martin, NRR Senior Project Manager – Vogtle 1 & 2

Mr. L. M. Cain, Senior Resident Inspector – Vogtle 1 & 2

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

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

State of Georgia

Mr. J. H. Turner, Director – Environmental Protection Division

**Vogtle Electric Generating Plant – Units 1 and 2  
Fourth 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)**

**Enclosure**

**Vogtle Electric Generating Plant – Units 1 and 2  
Fourth Six-Month Status Report Regarding Mitigation Strategies for  
Beyond-Design-Basis External Events (EA-12-049)**

**Vogtle Electric Generating Plant – Units 1 and 2  
 Fourth Six-Month Status Report Regarding Mitigation Strategies for  
Beyond-Design-Basis External Events (EA-12-049)**

**1 Introduction**

Vogtle Electric Generating 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 enclosure 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 previous 6-month update, and are current as of December 31, 2014:

- Develop Modifications

**3 Milestone Schedule Status**

The following provides an update to Attachment 2 of the Overall Integrated Plan (Reference 1). 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 Target Completion Dates are also based on the approval of one additional refueling cycle for full implementation of the order for Vogtle Electric Generating Plant – Unit 2 (References 4 & 5).

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
Submit 6 Month Status Report	Aug 2013	Complete	N/A
Initiate Phase 2 Equipment Procurement	Sep 2013	Complete	N/A
Submit 6 Month Status Report	Feb 2014	Complete	N/A
Submit 6 Month Status Report	Aug 2014	Complete	N/A
Develop Training Material	Jan 2015	In Progress	June 2015
Submit 6 Month Status Report	Feb 2015	Complete	N/A
Develop Modifications	Mar 2015	Complete	N/A
Develop Strategies (Vogtle Response Plan) with National SAFER Response Center	Jun 2015	In Progress	
Submit 6 Month Status Report	Aug 2015	Not Started	
Develop Operational Procedure Changes	Oct 2015	In Progress	
Develop FSGs	Oct 2015	In Progress	
Issue FSGs	Oct 2015	Not Started	
Implement Training	Oct 2015	In Progress	
Unit 1 Walk-throughs or Demonstrations	Oct 2015	Not Started	
Unit 1 Implementation Outage *	Oct 2015	Not Started	
Phase 2 Equipment Procurement Complete	Dec 2015	In Progress	
Unit 2 Walk-throughs or Demonstrations	Apr 2016	Not Started	
Unit 2 Implementation Outage *	Apr 2016	Not Started	
Submit 6 Month Status Report	Feb 2016	Not Started	
Submit Completion Report	Jun 2016	Not Started	

\*Full compliance after the implementation/second refueling outage or as approved by NRC extension (Reference 5)

**4 Changes to Compliance Method**

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

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

Vogtle Electric Generating Plant – Unit 1 expects to comply with the order implementation date and no relief/relaxation is required at this time. Vogtle Electric Generating Plant – Unit 2 requested and received a schedule relaxation of one additional refueling cycle for full implementation of the Order requirements and expects to comply with the relaxed date (References 4 & 5). No additional relief/relaxation is required or anticipated at this time.

**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) dated January 16, 2014 (ML13339A781).

Overall Integrated Plan Open Item	Status
1. Structure, content and details of the Vogtle Response Plan will be determined.	SAFER Team developing Pilot Response Plan

Interim Staff Evaluation Open Item	Status
3.2.4.10.A Load Reduction to Conserve DC Power - The licensee stated that the Class 1E batteries are capable maintaining critical loads for 10 hours prior to reaching the minimum voltage during an ELAP event, with margin. However, on page 10 of the Integrated Plan the licensee stated that the 480V Flex DGs will be available at any point past 12 hours to restore power to one battery charger on each Class 1E 125Vdc distribution bus. The licensee's response does not address the additional 2 hours that the critical loads would be powered from the Class 1E batteries and whether the minimum voltage would be exceeded during this time.	Closed (pending NRC concurrence)  Page 9 of Vogtle FLEX OIP – Revision 4 states, “the Class 1E batteries are capable of maintaining critical loads for more than 13 hours following the initiation of an ELAP event without going below minimum battery voltage limits established in the current licensing basis calculation.”

## **7 Potential Interim Staff Evaluation Impacts**

The NRC issued an Interim Staff Evaluation (ISE) for VEGP (Reference 3) with the Open Item listed in Section 6 above. The ISE states that, “the NRC concludes that the licensee has provided sufficient information to determine that there is reasonable assurance that the plan, when properly implemented, will meet the requirements of Order EA-12-049 at the Vogtle Electric Generating Plant, Units 1 and 2.”

## **8 References**

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

1. Vogtle Electric Generating 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, Vogtle Electric Generating Plant, Units 1 and 2 - Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC NOS. MF0714 and MFO715), dated January 16, 2014.
4. Vogtle Electric Generating Plant - Unit 2 Request for Relaxation of Commission Order Modifying Licenses With Regards to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 26, 2014.
5. NRC Letter, Vogtle Electric Generating Plant, Unit 2 - Relaxation of Certain Schedule Requirements for Order EA-12-049, Issuance of Order to Modify Licenses With Regard to Requirements for Mitigation Strategies Beyond Design Basis External Events, dated August 14, 2014.
6. Vogtle Electric Generating Plant - Units 1 and 2 Third 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) dated August 26, 2014, including Enclosure 2 – Vogtle Units 1&2 Mitigation Strategies (FLEX) Overall Integrated Implementation Plan (OIP), Revision 4.

## **9 Other Additional Information**

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

1. The inventory of each NSCW basin accessible to the FLEX Submersible Pump is capable of providing spray for both SFPs (500 gpm total flow) for approximately 100 hours instead of 120 hours as stated in the OIP Revision 4.
2. Analysis indicates that execution of specified load shed actions (Main Control Room lighting in the “Horseshoe” aligned to the associated unit’s D Battery) outlined in plant procedures provides a reliable source of illumination in the Main Control Room for more than 14 hours instead of 15 hours as stated in the OIP Revision 4.