

February 22, 2023

ND-23-0021

Docket Nos.: 52-025
52-026

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

Vogtle Electric Generating Plant - Units 3 and 4
Nineteenth 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. SNC Letter ND-13-1702, *Vogtle Electric Generating Plant Units 3 and 4 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 August 22, 2013.
5. SNC Letter ND-20-0164, *Vogtle Electric Generating Plant Units 3 and 4 Updated 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 EA-12-049)*, dated May 15, 2020.

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 directed the Vogtle Electric Generating Plant - Units 3 and 4 (VEGP 3&4) 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 3 of Reference 1.

Reference 1 required submission of an Overall Integrated Plan within one year after issuance of the final NRC Interim Staff Guidance (Reference 2). Reference 2 endorses industry guidance document NEI 12-06, Revision 0 (Reference 3) with clarifications and exceptions identified in

Reference 2. VEGP 3&4 has provided the original VEGP 3&4 Overall Integrated Plan (Reference 4) and the VEGP 3&4 Updated Overall Integrated Plan (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 and was followed in developing the enclosed report. The purpose of this letter is to provide the nineteenth 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 status report provides an update of milestone accomplishments since the last six-month update, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

This letter contains no new regulatory commitments. This letter has been reviewed and determined not to contain security-related information.

If there are any questions regarding this letter, please contact Will Garrett at (706) 848-7154.

Respectfully submitted,

A handwritten signature in black ink that reads "Jamie Coleman". The signature is fluid and cursive, with the first name "Jamie" and last name "Coleman" clearly distinguishable.

Jamie M. Coleman
Regulatory Affairs Director Vogtle 3&4

JMC/KMS/sfr

Enclosure: Nineteenth 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: Regional Administrator, Region II
 VPO Project Manager
 Senior Resident Inspector - Vogtle 3 & 4
 Director, Environmental Protection Division – State of Georgia

Southern Nuclear Operating Company

ND-23-0021

Enclosure

Vogtle Electric Generating Plant Units 3 & 4

**Nineteenth 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)**

(This enclosure consists of 6 pages including this cover page)

Nineteenth 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

Vogle Electric Generating Plant (VEGP) Units 3&4 developed an Overall Integrated Plan (OIP) (Reference 1 in Section 8), followed by an Updated OIP (Reference 2), documenting the diverse and flexible strategies (FLEX) in response to Nuclear Regulatory Commission Order EA-12-049 (Reference 3). This status report provides an update of milestone accomplishments since the last six-month update, 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 last six-month update (Reference 4), and are current as of February 7, 2023:

- Submit Order EA-12-049 Compliance Report for Unit 3 (Reference 7)

3 Milestone Schedule Status

The following table provides an update to the milestone schedule with 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 dates do not impact the Order implementation date.

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date (Feb 7, 2023 data date)
Submit 60 Day Status Report	Oct 2012	Complete	N/A
Submit Overall Integrated Plan (OIP)	Aug 2013	Complete	N/A
Submit 6 Month Status Report	Feb 2014	Complete	N/A
Submit 6 Month Status Report	Aug 2014	Complete	N/A
Submit 6 Month Status Report	Feb 2015	Complete	N/A
Submit 6 Month Status Report	Aug 2015	Complete	N/A
Submit 6 Month Status Report	Feb 2016	Complete	N/A
Submit 6 Month Status Report	Aug 2016	Complete	N/A
Submit 6 Month Status Report	Feb 2017	Complete	N/A
Submit 6 Month Status Report	Aug 2017	Complete	N/A
Submit 6 Month Status Report	Feb 2018	Complete	N/A
Submit 6 Month Status Report	Aug 2018	Complete	N/A
Submit 11 th 6-Month Status Report	Feb 2019	Complete	N/A
Submit 12 th 6-Month Status Report	Aug 2019	Complete	N/A
Staffing Analysis Complete Unit 3	Oct 2019	Complete	N/A
Submit 13 th 6-Month Status Report	Feb 2020	Complete	N/A
Submit 14 th 6-Month Status Report	Aug 2020	Complete	N/A
Submit 15 th 6-Month Status Report	Feb 2021	Complete	N/A
Submit 16 th 6-Month Status Report	Aug 2021	Complete	N/A

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Milestone	Target Completion Date	Activity Status	Revised Target Completion Date (Feb 7, 2023 data date)
Submit 17 th 6-Month Status Report	Feb 2022	Complete	N/A
Submit 18 th 6-Month Status Report	Aug 2022	Complete	N/A
Submit 19 th 6-Month Status Report	Feb 2023	Complete	N/A
Develop FLEX training	May 2020	Complete	N/A
Initiate Phase 3 Equipment Procurement – Units 3 and 4	Feb 2020	Complete	N/A
Ensure remaining BDB Nuclear Management Procedure (NMP) revisions and program documents (e.g., EOF, TSC, and SEC responses, EP procedures) include necessary information	Apr 2022	Complete	N/A
Ensure Operations' BDB procedures (e.g., FSGs/SIGs) include necessary information	Mar 2022	Complete	N/A
Develop Response Plan with NSRC (storage plan and procedural guidance for strategy/maintenance) – Units 3 and 4	Sept 2020	Complete	N/A
Training complete and documented for Phase 3 to include connection and use of redundant offsite equipment for Ancillary Equipment.	Nov 2020	Complete	N/A
National SAFER Response Center (NSRC) Operational for Units 3 and 4	Oct 2020	Complete	N/A
Submit Order EA-12-049 Compliance Report for Unit 3	Nov 2022 ⁽¹⁾	Complete	N/A
Staffing Analysis Complete Unit 4 (adding Unit 4 to completed Unit 3 analysis)	July 2022 ⁽²⁾	Complete	N/A
Submit Order EA-12-049 Compliance Report for Unit 4 and Final Integrated Plan (FIP)	Feb 2023	In Progress	May 2023

⁽¹⁾ Target Completion Date was "Oct 2022" on August 24, 2022 submittal; actual Completion Date was November 7, 2022

⁽²⁾ Unit 3 & 4 staffing analysis provided in August 2021 was updated and submitted in July 2022

4 Changes to Compliance Method

There are no changes to the compliance method as documented in the Updated OIP (Reference 2) since the August 2022 six-month update (Reference 4).

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

VEGP Unit 3 has completed the implementation of this Order and the compliance letter dated November 7, 2022 (Reference 7), has been submitted to the NRC. As noted in Section 2, the Milestone accomplished by February 7, 2023 is included in this report.

Nineteenth 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)

VEGP Unit 4 expects to comply with the Order implementation date and no relief/relaxation is required at this time.

6 Open Items from Overall Integrated Plan and NRC Staff Evaluation

The following tables provide a summary and status of the open items documented in the Overall Integrated Plan (OIP) and the confirmatory items documented in the NRC's Interim Staff Evaluation (ISE), dated October 27, 2020 (Reference 5).

Common information for VEGP 3&4 has been added to the FLEX program document NMP-GM-038-004 issued for Unit 3. Specific Unit 4 information will be added to NMP-GM-038-004 when updated for Unit 4.

Overall Integrated Plan Open Item	Status
N/A	N/A

NRC Staff Evaluation Confirmatory Items (CI)	Unit 3 Status	Unit 4 Status
(Section 3.2.3) Confirmatory Item 1: The design efforts related to the modifications noted in the OIP related to FLEX are complete. However, SNC should confirm that the construction and testing of the described modifications will be completed prior to implementation of OIP.	<u>Unit 3 Complete.</u> Construction and testing of the described modifications for VEGP Unit 3 are confirmed in the VEGP Unit 3 FLEX Compliance Letter.	<u>Unit 4 In Progress.</u> Confirmation that construction and testing of the modifications for VEGP Unit 4 will be included in the VEGP Unit 4 FLEX Compliance Letter.
	CI 1 will be included in the VEGP Units 3&4 Final Integrated Plan (FIP), issued at VEGP Unit 4 compliance.	
(Section 3.2.3) Confirmatory Item 2: In the original OIP, SNC provided simplified sketches depicting flow paths and FLEX connections. These sketches should be updated and provided in appropriate program documents, including the FIP.	<u>Units 3&4 Complete.</u> The VEGP Units 3&4 updated sketches have been included as Attachment 3 in FLEX program document NMP-GM-038-004, issued for VEGP Unit 3 FLEX compliance. CI 2 will be included in the VEGP Units 3&4 FIP, issued at VEGP Unit 4 compliance.	
(Section 3.2.3) Confirmatory Item 3: SNC should provide an approved equipment list to delineate required FLEX equipment (pumps, generators, fans, etc.), capacities, need for spares, and associated support (hoses, cables, connections, ducting, etc.), similar to the information provided in original OIP and NEI 12-06. The list should include the required critical performance criterion.	<u>Units 3&4 Complete.</u> The VEGP Units 3&4 FLEX equipment has been included as Table 7 in the FLEX program document NMP-GM-038-004, issued for VEGP Unit 3 FLEX compliance. CI 3 will be included in the VEGP Units 3&4 FIP, issued at VEGP Unit 4 compliance.	

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NRC Staff Evaluation Confirmatory Items (CI)	Unit 3 Status	Unit 4 Status
(Section 3.2.3) Confirmatory Item 4: SNC should provide a strategy to provide makeup water to containment as discussed in DCD/FSAR Section 5.4.7.5.	<u>Units 3&4 Complete.</u> Section 2.19.2 in the Updated OIP currently references 3-RNS-P72-001, <i>Post 72-Hour Operations of Containment Makeup</i> , which provides instructions for emergency makeup to containment during an extended loss of offsite power and normal makeup methods are unavailable. This information for VEGP Units 3&4 has been included in Section 4.1.4 of the FLEX program document NMP-GM-038-004, issued for VEGP Unit 3 FLEX compliance. CI 4 will be included in the VEGP Units 3&4 FIP, issued at VEGP Unit 4 compliance.	
(Section 3.2.3) Confirmatory Item 5: SNC updated the "Cold Weather Checklist" procedure for VEGP Units 1 and 2 to incorporate a check of roads and access routes in the OCA and protected area for icing conditions. The checklist designated a sand procurement location and to deploy ice melt from a storage warehouse. SNC needs to confirm that this checklist has been extended to cover the FLEX deployment routes for VEGP Units 3 and 4.	<u>Unit 3 Complete.</u> 11877-2, <i>Cold Weather Checklist</i> , Version 24, effective 08/05/21, includes VEGP Unit 3 FLEX deployment routes as depicted in NMP-OS-019-405, <i>Vogtle Unit 3 FSG-5, Initial Assessment and FLEX Equipment Staging</i> .	<u>Unit 4 In Progress.</u> 11877-2, <i>Cold Weather Checklist</i> , will be updated to include VEGP Unit 4 FLEX routes.
(Section 3.2.3) Confirmatory Item 6: OIP References 63 and 64 are noted in Section 2.20.1 as an evaluation of the haul paths for Units 3 and 4. These references are not included in the OIP list of references.	<u>Units 3&4 Complete.</u> 23162-000-30R-M10R-00003, <i>VEGP Units 3 and 4 FLEX Debris Removal Assessment</i> , and 23162-000-K0C-00V-00001, <i>FLEX Haul Road Liquefaction Analysis</i> , have been added to the FLEX program document NMP-GM-038-004.	

7 Potential Staff Evaluation Impacts

There are no potential impacts to the NRC Staff Evaluation since submittal of the August 2022 six-month update (Reference 4).

8 References

The following references support the Updated OIP described in this enclosure.

1. SNC Letter ND-13-1702, *Vogtle Electric Generating Plant Units 3 and 4 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 August 22, 2013
2. SNC Letter ND-20-0164, *Vogtle Electric Generating Plant Units 3 and 4 Updated 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 EA-12-049)*, dated May 15, 2020

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3. 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
4. SNC Letter ND-22-0628, *Vogtle Electric Generating Plant – Units 3 and 4 Eighteenth 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 24, 2022
5. NRC Letter, *Vogtle Electric Generating Plant, Units 3 and 4 – Staff Evaluation Regarding Implementation of Mitigating Strategies Related to Order EA-12-049 (EPID L-2020-LRQ-0002)*, dated October 27, 2020
6. NEI 12-06, *Diverse and Flexible Coping Strategies (FLEX) Implementation Guide*, Revision 0, dated August 2012
7. SNC Letter ND-22-0502, *Vogtle Electric Generating Plant Unit 3 Completion of Required Action for NRC Order EA-12-049 Mitigation Strategies for Beyond-Design-Basis External Events*, dated November 7, 2022