



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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October 24, 2017

Mr. George Lippard III, Vice President
Nuclear Operations
South Carolina Electric & Gas Company
Virgil C. Summer Nuclear Station
Post Office Box 88, Mail Code 800
Jenkinsville, SC 29065

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION, UNIT 1 – STAFF ASSESSMENT OF FLOODING FOCUSED EVALUATION (CAC NO. MF9921; EPID L-2017-JLD-0047)

Dear Mr. Lippard:

By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12053A340), the U.S. Nuclear Regulatory Commission (NRC) issued a request for information to all power reactor licensees and holders of construction permits in active or deferred status, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.54(f), "Conditions of Licenses" (hereafter referred to as the "50.54(f) letter"). The request was issued in connection with implementing lessons learned from the 2011 accident at the Fukushima Dai-ichi nuclear power plant, as documented in the NRC's Near-Term Task Force (NTTF) report (ADAMS Accession No. ML111861807). Enclosure 2 to the 50.54(f) letter requested that licensees reevaluate flood hazards for their sites using present-day methods and regulatory guidance used by the NRC staff when reviewing applications for early site permits and combined licenses (ADAMS Accession No. ML12056A046). By letter dated March 12, 2013 (ADAMS Accession No. ML13073A144), South Carolina Electric and Gas Company (SCE&G, the licensee) responded to this request for Virgil C. Summer Nuclear Station, Unit 1 (VCSNS).

After its review of the licensee's response, by letter dated December 23, 2014 (ADAMS Accession No. ML14356A002), supplemented by letter dated November 3, 2015 (ADAMS Accession No. ML15296A377), the NRC issued a staff assessment of the flooding reevaluation report for VCSNS. The staff assessment provided the reevaluated flood hazard mechanisms that exceeded the current design basis (CDB) for VCSNS and parameters that are a suitable input for the mitigating strategies assessment (MSA). As stated in the staff assessment, because the local intense precipitation (LIP), floods from streams and rivers, and storm surge flooding mechanisms are not fully bounded by the plant's CDB, additional assessments of the flood hazard mechanisms are necessary.

By letter dated June 30, 2017 (ADAMS Accession No. ML17181A513), the licensee submitted the focused evaluation (FE) for VCSNS. The FEs are intended to confirm that licensees have adequately demonstrated, for the unbounded mechanism identified in the November 3, 2015, NRC staff assessment that: 1) a flood mechanism is bounded based on further reevaluation of flood mechanism parameters; 2) effective flood protection is provided for the unbounded

mechanism; or 3) a feasible response is provided if the unbounded mechanism is the LIP. The purpose of this letter is to provide the NRC's assessment of the VCSNS FE.

As set forth in the attached staff assessment, the NRC staff has concluded that the VCSNS FE was performed consistent with the guidance described in Nuclear Energy Institute (NEI) 16-05, Revision 1, "External Flooding Assessment Guidelines" (ADAMS Accession No. ML16165A178). Guidance document NEI 16-05, Revision 1, has been endorsed by Japan Lessons-Learned Division (JLD) interim staff guidance (ISG) JLD-ISG-2016-01, "Guidance for Activities Related to Near-Term Task Force Recommendation 2.1, Flood Hazard Reevaluation" (ADAMS Accession No. ML16162A301). The NRC staff has further concluded that the licensee has demonstrated that effective flood protection, if appropriately implemented, exists for the unbounded flooding mechanisms during a beyond-design-basis external flooding event at VCSNS, assuming appropriate implementation of the regulatory commitments identified in the licensee's FE. This letter closes out the licensee's response for VCSNS for the reevaluated flooding hazard portion of the 50.54(f) letter and the NRC's efforts associated with CAC No. MF9921.

If you have any questions, please contact me at 301-415-2864 or at Milton.Valentin@nrc.gov.

Sincerely,



Milton O. Valentin, Project Manager
Beyond-Design-Basis Management Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Enclosure:
Staff Assessment Related to the
Flooding Focused Evaluation for VCSNS

Docket No: 50-395

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STAFF ASSESSMENT BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO THE FOCUSED EVALUATION FOR

VIRGIL C. SUMMER NUCLEAR STATION, UNIT 1

AS A RESULT OF THE REEVALUATED FLOODING HAZARD NEAR-TERM TASK FORCE

RECOMMENDATION 2.1 - FLOODING

(CAC NO. MF9921)

1.0 INTRODUCTION

By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12053A340), the U.S. Nuclear Regulatory Commission (NRC) issued a request for information to all power reactor licensees and holders of construction permits in active or deferred status, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.54(f) (hereafter referred to as the "50.54(f) letter"). The request was issued in connection with implementing lessons learned from the 2011 accident at the Fukushima Dai-ichi nuclear power plant, as documented in the NRC's Near-Term Task Force (NTTF) report (ADAMS Accession No. ML111861807).

Enclosure 2 of the 50.54(f) letter requested that licensees reevaluate flood hazards for their respective sites using present-day methods and regulatory guidance used by the NRC staff when reviewing applications for early site permits and combined licenses (ADAMS Accession No. ML12056A046). If the reevaluated hazard for any flood-causing mechanism is not bounded by the plant's current design basis (CDB) flood hazard, an additional assessment of plant response would be necessary. Specifically, the 50.54(f) letter stated that an integrated assessment should be submitted, and described the information that the integrated assessment should contain. On November 30, 2012 (ADAMS Accession No. ML12311A214), the NRC staff issued Japan Lessons-Learned Division (JLD) interim staff guidance (ISG) JLD-ISG-2012-05, "Guidance for Performing the Integrated Assessment for External Flooding."

On June 30, 2015, the NRC staff issued COMSECY-15-0019, describing the closure plan for the reevaluation of flooding hazards for operating nuclear power plants (ADAMS Accession No. ML15153A104). The Commission approved the closure plan on July 28, 2015 (ADAMS Accession No. ML15209A682). COMSECY-15-0019 outlines a revised process for addressing cases in which the reevaluated flood hazard is not bounded by the plant's CDB. The revised process describes a graded approach in which licensees with hazards exceeding their CDB flood will not be required to complete an integrated assessment, but instead will perform a focused evaluation (FE). As part of the FE, licensees will assess the impact of the hazard(s) on their site and then evaluate and implement any necessary programmatic, procedural, or plant modifications to address the hazard exceedance.

Nuclear Energy Institute (NEI) 16-05, Revision 1, "External Flooding Assessment Guidelines" (ADAMS Accession No. ML16165A178), has been endorsed by the NRC as an appropriate methodology for licensees to perform the focused evaluation in response to the 50.54(f) letter. The NRC's endorsement of NEI 16-05, including exceptions, clarifications, and additions, is described in NRC JLD-ISG-2016-01, "Guidance for Activities Related to Near-Term Task Force

Recommendation 2.1, Flood Hazard Reevaluation” (ADAMS Accession No. ML16162A301). Therefore, NEI 16-05, Revision 1, describes acceptable methods for demonstrating that South Carolina Electric and Gas (SCE&G, the licensee) has effective flood protection for the Virgil C. Summer Nuclear Plant, Unit 1 (VCSNS).

2.0 BACKGROUND

This background section describes the reevaluated flood information provided by the licensee and the associated assessments performed by the NRC staff. The reevaluated flood information includes the flood hazard reevaluation report (FHRR), the mitigation strategies assessment (MSA), and the focused evaluation (FE).

Flood Hazard Reevaluation Report

By letter dated March 12, 2013 (ADAMS Accession No. ML130730114), the licensee submitted the FHRR for VCSNS. The FHRR was supplemented by letter dated August 22, 2013 (ADAMS Accession No. ML13240A005, Non-Public). The NRC staff requested additional information from the licensee on January 30, 2014 (ADAMS Accession No. ML14023A740). The licensee responded to the request for additional information by letter dated March 26, 2014 (ADAMS Accession No. ML14093A320). After reviewing the licensee’s response, by letter dated December 23, 2014 (ADAMS Accession No. ML14356A002), the NRC issued a staff assessment letter with open items for the VCSNS FHRR. The staff assessment letter discussed the reevaluated flood hazard mechanism that exceeded the CDB for VCSNS and the parameters that are a suitable input for the MSA. As stated in the staff assessment letter, because the local intense precipitation (LIP), floods from streams and rivers, and storm surges were not fully bounded by the plant’s CDB, additional assessments are necessary. In a supplement to the staff assessment letter dated November 3, 2015 (ADAMS Accession No. ML15296A377), the NRC staff provided an update to its conclusions in accordance with the flood hazard reevaluation approach described in NRC letter dated September 1, 2015 (ADAMS Accession No. ML15174A257). In its supplement letter, the NRC staff concluded that the reevaluated flood-causing mechanism information is appropriate input to additional assessments or evaluations of plant response, as described in the 50.54(f) letter and COMSECY-15-0019, including the assessment of mitigation strategies developed in response to Order EA-12-049. The NRC staff also identified two open items for the licensee to resolve in subsequent flooding evaluations.

Mitigation Strategies Assessment

By letter dated December 22, 2016 (ADAMS Accession No. ML16357A603), the licensee provided its MSA for NRC review. The MSAs are intended to confirm that licensees have adequately addressed the reevaluated flooding hazards within their mitigation strategies for beyond-design-basis external events. By letter dated March 22, 2017 (ADAMS Accession No. ML17072A259), the NRC staff presented its assessment of the licensee’s MSA. The NRC staff concluded that the MSA was performed consistent with the guidance described in Appendix G of Nuclear Energy Institute 12-06, Revision 2, “Diverse and Flexible Coping Strategies (FLEX) Implementation Guide” (ADAMS Accession No. ML16005A625). The NRC’s endorsement of NEI 12-06, Revision 2, is described in JLD-ISG-2012-01, Revision 1, “Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events” (ADAMS Accession No. ML15357A163). The NRC staff further concluded that the licensee has demonstrated that the mitigation strategies, if appropriately implemented, are reasonably protected from reevaluated flood hazards conditions.

Focused Evaluation

By letter dated June 30, 2017 (ADAMS Accession No. ML17181A513), the licensee submitted the FE for VCSNS. The FEs are intended to confirm that licensees have adequately demonstrated, for unbounded mechanisms identified in the ISR letter, that: 1) a flood mechanism is bounded based on further reevaluation of flood mechanism parameters; 2) effective flood protection is provided for the unbounded mechanism; or 3) a feasible response is provided if the unbounded mechanism is LIP. These 3 options associated with performing an FE are referred to as Path 1, 2, or 3, as described in NEI 16-05, Revision 1. The purpose of this staff assessment is to provide the results of the NRC's evaluation of the VCSNS FE.

3.0 TECHNICAL EVALUATION

The licensee stated that the FE for VCSNS followed Path 2 of NEI 16-05, Revision 1 and followed guidance in Appendices B, C, E, and G to evaluate the site's strategy. This technical evaluation characterizes the flood parameters and evaluates the following flood impact assessment topics for each unbounded flood-causing mechanisms: (1) description of impact of unbounded hazard; (2) evaluation of available physical margin and reliability of flood protection features; and (3) overall site response.

3.1 Characterization of Flood Parameters

The FE states that the flood-causing mechanisms that are not bounded by design are the LIP, streams and rivers, and storm surge. The FE also states that the storm surge flood-causing mechanism is included in streams and rivers as a combined effect. Table 5-2 of the FE provides the FHRR hazard elevations for LIP and streams and rivers with associated effects for the Monticello Reservoir.

The NRC staff compared the flood hazard information provided in Table 5-2 of the FE against the information presented in the FHRR and the supplement for consistency. The FHRR information was previously found acceptable for use in NRC letter dated September 1, 2015 (ADAMS Accession No. ML15174A257). Based on this comparison, the staff concludes that the licensee's characterization of the unbounded flood-causing mechanisms in the FE is appropriate.

The licensee concluded in its FE that key safety functions (KSFs) are protected from the non-bounded reevaluated flood-causing mechanisms by protective measures and permanent/passive features with adequate margin. The licensee also stated that human actions are required to protect structures, systems, and components (SSCs) needed to maintain the KSFs; therefore, an evaluation of the overall site response was necessary.

3.2 Evaluation of Flood Impact Assessment for LIP

3.2.1 Description of Impact of Unbounded Hazard

As provided in FE Table 5-2, the LIP FHRR hazard elevation varies from 436.6 feet (ft.) on the east side of the power block to 437.6 ft. on the west side of the power block. The site's ground elevation is 435 ft. and the safety-related buildings and equipment are protected up to 436.5 ft., as described in the VCSNS Updated Final Safety Analysis Report (UFSAR) Section 2.4.3.1.3. Therefore, water from the LIP event could potentially enter a number of safety-related structures and accumulate at lower elevations causing internal flooding at the basement levels of these

structures and potentially affecting safety-related equipment. In its assessment, the licensee identified the SSCs important to maintain the KSFs that could potentially be affected by the LIP event. These are listed below:

- Auxiliary Building (AB)
 - Residual Heat Removal Pumps and Reactor Building Spray Pumps
- Intermediate Building (IB) and East Penetration Access Area (EPAA)
 - 1E Batteries, Emergency Feedwater (EFW) Pumps, Safety Related Chillers, and Service Water Booster Pumps
- Control Building (CB)
 - None Identified. Flooding of the CB migrates to the AB due to drain piping interconnections
- Diesel Generator Building (DGB)
 - EFW Pump Suction Pressure Transmitters and Emergency Diesel Generator Auxiliaries
- Service Water Pump House (SWPH)
 - Service Water Pump Discharge Valves and Instrumentation

As explained in the following section, the licensee has proposed interim actions and permanent solutions to prevent flood waters from compromising SSCs important to the KSF's.

3.2.2 Evaluation of Available Physical Margin and Reliability of Flood Protection Features

The VCSNS FE states that the licensee has proposed a permanent solution that will involve plant modifications for site flooding remediation. These engineering changes are being tracked by VCSNS Plant Modification Engineering Change Record (ECR) 50890, "External Flooding Protection." The licensee has made a regulatory commitment to complete these plant modifications by December 2018, as documented in Enclosure 2 of the FE. In the meantime, the licensee has been implementing interim actions to protect the KSFs against water intrusion and accumulation. These interim actions, declared as regulatory commitments in SCE&G letter dated August 22, 2013 (ADAMS Accession No. ML13240A005, Non-Public) include the deployment of sandbags in accordance with OAP-109.1 [VCSNS Operations Administrative Procedure, Guidelines for Severe Weather, OAP-109.1, Revision 4G, dated April 2017] and periodic inspections of the site's storm drainage system until a permanent solution is implemented. The licensee explained, in Section 6.2 of its FE, that the interim actions will stop after the permanent site modifications are completed.

The NRC staff took a closer look into the proposed interim actions to assess the reliability of the proposed protection features. For the use of sandbags, the NRC staff reviewed VCSNS Operations Administrative Guidance 109.1 (OAP-109.1), which is the licensee's procedure and guidance on deploying and placing sandbags to protect and maintain the KSFs during the LIP flood. This guidance made available for NRC review as part of the audit process. The NRC staff confirmed that the licensee did attached the sandbag guidance to OAP-109.1. By doing so, the licensee has provided the plant personnel with means to prevent water intrusion at the identified potential water pathways.

The licensee should also ensure that enough sandbags are placed to prevent water to flow over the sandbag barrier. Based on its review of OAP-109.1 the staff concludes that, if the sandbags are positioned in a staggered manner and if the licensee uses plastic sheets as described in OAP-109.1, flood waters should remain outside the structures. The licensee has also explained that sandbags should be ready and accessible for deployment if needed.

An important aspect to consider is the site's processes to monitor the weather conditions. The licensee has two ways to do so. One option is the use of contracted weather/forecast service to alert the licensee when severe weather approaches the site. Also, as the licensee stated in its FE, operations personnel are procedurally required to monitor the weather forecast once every 12 hours. Given the advantage of having multiple ways to monitor the weather, and the warnings that the contracted weather/forecast service should send when needed, the NRC staff concludes that the licensee should have enough time to implement the interim protective actions.

Regarding the periodic inspections of the site's storm drainage system, the licensee stated in the August 22, 2013, supplement letter that maintenance personnel performs periodic inspections to ensure that there are no blockages to the storm drains and that debris is removed from drainage entrances. As stated in the supplement letter, if debris is too big for the maintenance crew to remove, a condition report would be written to have the debris removed. Based on these statements, the NRC staff concludes that, if the periodic inspections are implemented as described by the licensee, the storm drainage system should be available to drain flood waters away from the site's protected area.

The licensee also mentioned the implementation of permanent flood protection for the VCSNS site. This permanent flood protection was described in VCSNS Technical Report TR02060-003 as a combination of engineering measures such as installation of flood barriers in specific doors, the modification of specific walls, and the protection of safety-related equipment in specific locations. If performed as described by the licensee, the permanent flood protection should provide a margin between 9.5 inches and 12 inches above the highest water elevation from the LIP at the specified locations. The licensee made a regulatory commitment to complete these modifications by December 2018. The licensee has also made a regulatory commitment to perform a validation per NEI 12-06 Appendix E, to confirm that the proposed protection measures can be implemented in the time contained in Table 5-3 of the FE. Table 5-3 of the FE provides the time for site preparation against the LIP flood. If the modifications are completed and proved effective by the licensee, the NRC staff concludes that the KSFs should have appropriate protection against flood waters.

Based on the appropriate physical margin provided by the flood protection features described above, the NRC staff concludes that these margins are adequate and features should be reliable in maintaining KSF's as defined in Appendix B of NEI 16-05, Revision 1.

3.2.3 Overall Site Response

As previously explained, the licensee relies on personnel actions to provide flood protection against the beyond-design-basis LIP event. In its FE, the licensee has explained the current flood protection strategy, which depends on severe weather warnings and sandbag placement to prevent water intrusion in locations where KSF's are performed. The NRC staff confirmed that instructions for the sandbag placement are currently contained in site procedures and that this guidance had been validated. The licensee has also explained that periodic inspections are performed to ensure that the site's storm drainage system is available. These interim actions are

self-imposed regulatory commitments that the license should continue to comply with until the permanent flood protection is installed in December 2018. If the described interim actions are performed as stated by the licensee, the NRC staff concludes that the VCSNS should have appropriate protection against LIP flooding.

The licensee also described that permanent flood protection will consist of flood gates attached to rails permanently installed to walls and doorways in locations where flood waters could enter buildings and compromise KSF's. The licensee explained that the flood gates should either be pre-staged near the point of deployment or stored at the FLEX Storage Building. The licensee has also explained that the proposed protection deployment will be validated following NEI 12-06 Appendix E and will be documented as part of the Engineering Correction Report (ECR) 50890. Completion and validation of the permanent protection features are self-imposed regulatory commitments, as stated by the licensee in its FE and in previous letters.

Thus, subject to completion of the plant modifications, as well as confirmation by validation, the NRC staff concludes that the proposed permanent solution for the reevaluated LIP hazard should protect the KSFs if performed as described in the FE.

3.2.4 Resolution of FHRR Open Items

Table 5.0-1 of the NRC letter dated December 23, 2014 (ADAMS Accession No. ML14356A002), identified two open items for the licensee to address in subsequent flooding assessments. The licensee provided closure information to resolve these items in Section 8 of the FE. The NRC staff's evaluation of FE Section 8 is provided in the following paragraphs.

- Open Item No. 1: In this item, the licensee was requested to resolve the staff-identified numerical modeling issue associated with the LIP (and related Service Water Pond flooding). The issue relates to runoff from rooftops being removed from the numerical model domain rather than discharging to the ground surface near the structure or an adjacent area. The licensee stated, in its FE, that VCSNS Calculation DC2060-005 was updated after a re-simulation using an upgraded version of the FLO-2D Software (Version Pro-Model – Build No. 14.03.07) which resolved the issue of rain water on roofs becoming missing. The NRC staff reviewed this information and found that the new version of the FLO-2D software does consider the runoff water from the roofs. The NRC staff also noted that the new values did not alter the conclusions already made or the flood elevations previously provided. Based on that, the NRC staff accepts the proposed closure of the open item.
- Open Item No. 2: In this item, the licensee was requested to evaluate the range of rainfall durations associated with the LIP, and subsequently identify potential limiting scenarios with respect to warning time, flood height, relevant associated effects, and flood duration parameters. The licensee stated that VCSNS Calculation DC02060-005 was updated to include rainfall durations (5 minutes, 15 minutes, 30 minutes, 1 hour, and 6 hours) intensities, and distributions per NUREG/CR-7046. NUREG/CR-7046 incorporates by reference the National Oceanic and Atmospheric Association's Hydrometeorological Report No. 52, which is an acceptable reference for these evaluations. As part of the audit process, the NRC staff confirmed that updated results from considering the different rainfall durations, intensities, and distributions were incorporated in the DC02060-005 calculation as described by the licensee. By doing so, the NRC staff also confirmed that the new information was used to update the overall LIP site flood assessment and the

results used for the FE. Given the staff's confirmation, the NRC staff concludes that the information provided to close item 2 is acceptable.

3.3 Evaluation of Flood Impact Assessment for Streams and Rivers

3.3.1 Description of Impact of Unbounded Hazard

As provided in FE Table 5-2, the FHRR maximum credible flood elevation for streams and rivers with associated effects (storm surge) is 437 ft. The streams and rivers flood waters would come from the Monticello Reservoir, located adjacent to and north of the VCSNS site. The Monticello Reservoir is formed by the Frees Creek Dams located north and west from the VCSNS site. If this flood event were to impact the site's protected area, the 437 ft. flood elevation would exceed the site's ground elevation (435 ft.) and the safety-related buildings and equipment grade protection (436 ft. and 436.5 ft., respectively).

3.3.2 Evaluation of Available Physical Margin and Reliability of Flood Protection Features

The FE states that the site relies on the North Berm for protection against streams and river flood elevation of 437 ft. The North Berm is a passive, permanent, earthen embankment with a design elevation of 438.0 ft. This earthen embankment provides a physical margin of 1 foot over the maximum credible flood (considering wind set-up and wave run-up) coming from streams and rivers. The NRC staff confirmed that the information provide in the FE about the North Berm is consistent with the description provided in the VCSNS UFSAR. Any necessary design-basis flood protection measures were verified in accordance with the NTF Recommendation 2.3 flooding walkdowns that were performed at VCSNS, as documented in the staff's walkdown report dated June 6, 2014 (ADAMS Accession No. ML14141A461). During the flooding walkdown, the North Berm was the subject of inspections to ensure that its integrity and configuration is still reliable as described in the UFSAR. The NRC staff's walkdown report explained that, after licensee's evaluation, it was determined that the North Berm still provides physical margin against the maximum wave run-up elevation of 437 ft. Based on the confirmation, the NRC staff concludes that the North Berm should protect the site's KSFs from streams and rivers flooding.

3.3.3 Overall Site Response

The licensee does not rely on any personnel actions or new modifications to the plant in order to respond to the beyond-design-basis streams and rivers flood event. As described above, the licensee's evaluation relied on passive existing features to demonstrate adequate flood protection against flooding from streams and rivers. Therefore, there is no need to review overall site response for this hazard.

4.0 AUDIT REPORT

The July 18, 2017, generic audit plan describes the NRC staff's intention to issue an audit report that summarizes and documents the NRC's regulatory audit of the licensee's FE. The NRC staff's VCSNS audit was limited to the review of the calculations and procedures described above. Because this staff assessment appropriately summarizes the results of the audit, the NRC staff concludes a separate audit report is not necessary, and that this document serves as the audit report described in the NRC staff's letter dated July 18, 2017.

5.0 CONCLUSION

The NRC staff concludes that SCG&E performed the VCSNS FE in accordance with the guidance described in NEI 16-05, Revision 1, as endorsed by JLD-ISG-2016-01, and that the licensee has demonstrated that effective flood protection exists, assuming appropriate implementation of the licensee's regulatory commitments, from the reevaluated flood hazards. Furthermore, the NRC staff concludes that VCSNS screens out of performing an integrated assessment based on the guidance found in JLD-ISG-2016-01. As such, in accordance with Phase 2 of the process outlined in the 50.54(f) letter, additional regulatory actions associated with the reevaluated flood hazard, beyond those associated with mitigation strategies assessment, are not warranted. The licensee has satisfactorily completed its responses to the 50.54(f) information requests associated with the reevaluated flood hazards.

VIRGIL C. SUMMER NUCLEAR STATION, UNIT 1 – STAFF ASSESSMENT OF FLOODING
FOCUSED EVALUATION (CAC NO. MF9921; EPID L-2017-JLD-0047) DATED OCTOBER 24,
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