

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

June 25, 2014

David A. Heacock
President and Chief Nuclear Officer
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT:

SURRY POWER STATION UNITS 1 AND 2 – STAFF ASSESSMENT OF THE FLOODING WALKDOWN REPORT SUPPORTING IMPLEMENTATION OF NEAR-TERM TASK FORCE RECOMMENDATION 2.3 RELATED TO THE

FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT ACCIDENT

(TAC NOS. MF0286 AND MF0287)

Dear Mr. Heacock:

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued a request for information letter per Title 10 of the *Code of Federal Regulations*, Section 50.54(f) (50.54(f) letter). The 50.54(f) letter was issued to power reactor licensees and holders of construction permits requesting addressees to provide further information to support the NRC staff's evaluation of regulatory actions that may be taken in response to lessons learned from Japan's March 11, 2011, Great Tōhoku Earthquake and subsequent tsunami. The request addressed the methods and procedures for nuclear power plant licensees to conduct flooding hazard walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions through the corrective action program, and to verify the adequacy of the monitoring and maintenance procedures.

By letter dated November 27, 2012, Virginia Electric and Power Company (Dominion) submitted a Flooding Walkdown Report as requested in Enclosure 4 of the 50.54(f) letter for the Surry Power Station, Units 1 and 2 (SPS) site. By letter dated January 30, 2014, Dominion provided a response to the NRC request for additional information for the NRC staff to complete its assessments.

The NRC staff reviewed the information provided and, as documented in the enclosed staff assessment, determined sufficient information was provided to be responsive to Enclosure 4 of the 50.54(f) letter.

If you have any questions, please contact me at (301) 415-2597 or by e-mail at V.Sreenivas@nrc.gov.

Sincerely,

Ør. V. Sreenivas, Project Manager Plant Licensing Branch II-1

Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket No. 50-280 and 50-281

Enclosures:

Staff Assessment of Flooding Walkdown Report

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STAFF ASSESSMENT OF FLOODING WALKDOWN REPORT NEAR-TERM TASK FORCE RECOMMENDATION 2.3 RELATED TO THE FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT ACCIDENT VIRGINIA ELECTRIC AND POWER COMPANY SURRY POWER STATION, UNITS 1 AND 2 DOCKET NOS. 50-280 AND 50-281

1 INTRODUCTION

On March 12, 2012,¹ the U.S. Nuclear Regulatory Commission (NRC) issued a request for information per Title 10 of the *Code of Federal Regulations*, Subpart 50.54(f) (50.54(f) letter) to all power reactor licensees and holders of construction permits in active or deferred status. The request was part of the implementation of lessons learned from the accident at the Fukushima Dai-ichi nuclear power plant. Enclosure 4, "Recommendation 2.3: Flooding," to the 50.54(f) letter requested licensees to conduct flooding walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions using the corrective action program (CAP), verify the adequacy of monitoring and maintenance procedures, and report the results to the NRC.

The 50.54(f) letter requested licensees to include the following:

- Describe the design basis flood hazard level(s) for all flood-causing mechanisms, including groundwater ingress.
- Describe protection and migration features that are considered in the licensing basis evaluation to protect against external ingress of water into structures, systems, and components (SSCs) important to safety.
- Describe any warning systems to detect the presence of water in rooms important to safety.
- d. Discuss the effectiveness of flood protection systems and exterior, incorporated, and temporary flood barriers. Discuss how these systems and barriers were evaluated using the acceptance criteria developed as part of Requested Information item 1.h.
- e. Present information related to the implementation of the walkdown process (e.g., details of selection of the walkdown team and procedures) using the documentation template discussed in Requested Information item 1.j, including actions taken in response to the peer review.
- f. Results of the walkdown including key findings and identified degraded, nonconforming, or unanalyzed conditions. Include a detailed description of the actions taken or planned to address these conditions using guidance in Regulatory Issues Summary 2005-20, Revision 1, Revision to the NRC Inspection Manual Part 9900 Technical Guidance,

¹ ADAMS Accession No. ML12053A340.

² ADAMS Accession No. ML12056A050.

- "Operability Conditions Adverse to Quality or Safety," including entering the condition in the corrective action program.
- g. Document any cliff-edge effects identified and the associated basis. Indicate those that were entered into the corrective action program. Also include a detailed description of the actions taken or planned to address these effects.
- h. Describe any other planned or newly installed flood protection systems or flood mitigation measures including flood barriers that further enhance the flood protection. Identify results and any subsequent actions taken in response to the peer review.

In accordance with the 50.54(f) letter, Enclosure 4, Required Response Item 2, licensees were required to submit a response within 180 days of the NRC's endorsement of the flooding walkdown guidance. By letter dated May 21, 2012³, the Nuclear Energy Institute (NEI) staff submitted NEI 12-07, Revision 0 A, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features" to the NRC staff to consider for endorsement. By letter dated May 31, 2012⁴, the NRC staff endorsed the walkdown guidance.

By letter dated November 27, 2011⁵, Virginia Electric and Power Company (Dominion, the licensee), provided a response to Enclosure 4 of the 50.54(f) letter Required Response Item 2, for the Surry Power Station, Units 1 and 2 (SPS). The NRC staff issued a request for additional information (RAI) to the licensee regarding the available physical margin (APM) dated December 23, 2013⁶. The licensee responded by letter dated January 30, 2014⁷.

The NRC staff evaluated the licensee's submittals to determine if the information provided in the walkdown report met the intent of the walkdown guidance and if the licensee responded appropriately to Enclosure 4 of the 50.54(f) letter.

2 REGULATORY EVALUATION

The SSCs important to safety in operating nuclear power plants are designed either in accordance with, or meet the intent of Appendix A to 10 CFR Part 50, General Design Criteria (GDC) 2: "Design Bases for Protection Against Natural Phenomena;" and Appendix A "Seismic and Geological Criteria for Nuclear Plants" to 10 CFR Part 100. GDC 2 states that SSCs important to safety at nuclear power plants shall be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunami, and seiches without loss of capability to perform their safety functions.

For initial licensing, each licensee was required to develop and maintain design bases that, as defined by 10 CFR 50.2, identify the specific functions to be performed by an SSC, and the specific values or ranges of values chosen for controlling parameters as reference bounds for the design.

³ ADAMS Package Accession No. ML121440522.

⁴ ADAMS Accession No. ML12144A142.

⁵ ADAMS Accession No. ML12335A009.

⁶ ADAMS Accession No. ML13325A891.

⁷ ADAMS Accession No. ML14034A229.

The design bases for the SSCs reflect appropriate consideration of the most severe natural phenomena that have been historically reported for the site and surrounding area. The design bases also reflect sufficient margin to account for the limited accuracy, quantity, and period of time in which the historical data have been accumulated.

The current licensing basis (CLB) is the set of NRC requirements applicable to a specific plant, and a licensee's written commitments for ensuring compliance with, and operation within, applicable NRC requirements and the plant-specific design basis that are in effect.

3 TECHNICAL EVALUATION

3.1 Design Basis Flooding Hazard Surry Power Station

The design basis flood (DBF) hazard for the site reported by the licensee is the probable maximum flood (PMF) on the James River and the probable maximum hurricane (PMH). The licensee obtained data for the PMF from the SPS Updated Final Safety Analysis Report (UFSAR). The licensee reported that the PMF water-surface elevation is 1 ft. greater than the normal mean James River water-surface elevation with no absolute elevation or duration stated. The UFSAR indicates flooding in the James River at the SPS site is the result of discharges due to watershed runoff and surge from severe storm events.

The licensee identified the PMH as generating the most limiting flood water-surface elevations. The PMH stillwater surface elevation is 22.7 ft. mean sea level (MSL) at the east end of the SPS intake and at the main power block area. The PMH water-surface elevation including wave runup is 28.6 ft. MSL on the east side of the site and 24.0 ft. MSL at the main power block areas. The licensee stated that during a PMH, the surface water elevation would be higher than normal for no more than 24 hrs.

The licensee stated that it evaluated the severe precipitation event as part of the flooding walkdown effort, although not specifically stated as a flooding source in the SPS UFSAR or current licensing basis (CLB). The licensee reports in the walkdown report that a precipitation event is only generally described in the SPS UFSAR. The described precipitation event was measured at 11.4 inches over a 24-hr period. No flood elevation is reported for this event and the licensee assumes there is no accumulation or significant ponding as a result of precipitation.

The licensee stated in the walkdown report that groundwater ingress is not a feasible mechanism for a flooding event at SPS based on soil permeability, the short duration of riverine flood exposure, and the distance from the river to the SPS site.

Based on the NRC staff's review, the licensee appears to have described the design basis flood hazard level(s) as requested in the 50.54(f) letter and consistent with the walkdown guidance.

3.2 Flood Protection and Mitigation

3.2.1 Flood Protection and Mitigation Description

The licensee reported that the current licensing basis calls for flood protection to variable elevations. The power block and intake grade elevations are 26.5 ft. and 8.0 ft. MSL, respectively. The licensee stated that the general plant grade is the only PMF and precipitation

event flood-protection feature and these events are bounded by the more limiting PMH event. The licensee assumed that waves on the west side of the site reflect off the opposite river bank and return to the site unattenuated. The licensee stated that the only structure that would be subject to potential flooding from the PMH would be the SPS intake structure located 1.7 miles east of the main power block. The licensee made no assumptions about the physical status of any flood-protection and mitigation features in the PMH analysis.

The licensee indicated that plant configuration is not specifically discussed in the CLB and therefore it was assumed the function of flood protection from PMH would be applicable to each mode of plant operation. The licensee assumed that the functionality of the flood-protection features is not affected by the changes in the mode of plant operation.

The licensee stated the hurricane surges are of short duration and that the PMH cycle is less than 24 hours. The licensee assumed a significant amount of concurrent precipitation and wind (maximum speed 135.4 mph) for the purposes of the PMH analysis.

3.2.2 Incorporated and Exterior Barriers

The licensee reported that the site has incorporated and/or exterior barriers that are permanently in place, requiring no operator manual actions. The licensee stated that the housing for the emergency service water pumping equipment is constructed of reinforced concrete at an elevation above the circulating water intake structure deck. The licensee stated that walls, roof, and floors of the emergency service water pump house (ESPH) are watertight. The licensee stated that motor operated dampers located on the roof of the ESPH would provide air intake for emergency service water pumps. The licensee stated that these dampers are under an exhaust hood of the roof at an elevation above the PMH to protect it for overtopping. The licensee stated that the intake canal is maintained with a minimum of 4 ft. of freeboard to protect it from river flooding and PMH event.

The licensee stated that the SPS site grading and the storm drains are flood protection features for a maximum precipitation event. Although the precipitation event is not specifically stated as a flooding source in the SPS UFSAR or current licensing basis (CLB), the licensee indicated that these flood protection features are part of the design bases of SPS. The licensee credited the storm drains for preventing water from accumulating and entering into buildings.

3.2.3 Temporary Barriers and Other Manual Actions

The licensee reported that the site has temporary barriers and other manual actions that require operator action. The actions/barriers include the Emergency Service Water Pump House (ESPH) temporary barriers that are manually installed according to established procedures prior to the arrival of a hurricane. These barriers include: manually installed covers on air intake louvers; manually installed seal plates and exterior covers on ESPH doors and intake louver openings; and manually installed flood gate on the ESPH doors.

3.2.4 Reasonable Simulation and Results

The licensee conducted reasonable simulations of credited procedures as part of the flooding walkdown. These simulations evaluated site procedures in preparation or in response to severe weather events. The licensee has procedures in place that are initiated when certain abnormal

environmental conditions are expected at the site. These procedures involve hurricane preparations such as closing doors, putting flood protection barriers in place, and preparing equipment required for shutdown. The licensee stated that shutdown procedures are to be undertaken as a hurricane approaches and determined that credited operator actions could be carried out as described in the procedure. The licensee indicated the applicable procedures could be performed as written and in the required timeframe.

3.2.5 Conclusion

Based on the review, the licensee appears to have described protection and mitigation features as requested in the 50.54(f) letter and consistent with the walkdown guidance.

3.3 Warning Systems

The licensee stated that there are no credited room water-surface elevation warning system features used to detect external flooding events. The licensee indicated sump alarms and water level alarms used for internal flooding are available but are not credited for external flooding events.

Based on the NRC staff's review, the licensee appears to have provided information to describe any warning systems as requested in the 50.54(f) letter, and consistent with the walkdown guidance.

3.4 Effectiveness of Flood Protection Features

The licensee's evaluation included visual inspections and review of preventative and surveillance procedures for the purpose of validating the plant's physical features and operational conformance with the CLB. The licensee's evaluation considerations for assessing effectiveness were consistent with NEI-12-07 guidance related to performing verification walkdowns of plant flood-protection features.

The licensee prepared 78 flooding walkdown packages for flood-protection and mitigation features; the licensee did not itemize these packages in the flooding walkdown report. The licensee developed entries into the corrective action program (CAP) for observations that were not immediately identified as acceptable.

The licensee determined that all seven procedures credited for flood hazard protection were adequate using reasonable simulation activities. The licensee did not itemize these seven procedures in the flooding walkdown report.

The licensee identified two flood features—the conduit ends in Manhole 0-SE-MH-22 and the buried storm drain piping—as being inaccessible and entered these features into the CAP. The licensee identified degraded conduit seals, but they were determined to not pose a significant leakage potential.

The licensee identified manholes with missing seals, which were determined to pose potentially significant leakage paths to protected areas. The licensee entered these conditions into the CAP.

The licensee identified the lack of a periodic monitoring program for penetrations and conduit seals. The NRC staff acknowledges that the licensee has completed programmatic controls for periodic inspections of conduit and penetrations seals by December 31, 2013.

The licensee identified that there was not a rigorous tracking control of yard and storm drain changes. The NRC staff acknowledges that the licensee has completed programmatic controls for periodic inspections of conduit and penetrations seals by December 31, 2013.

Based on the NRC staff's review, the licensee appears to have discussed the effectiveness of flood protection features as requested in the 50.54(f) letter and consistent with the walkdown guidance.

3.5 Walkdown Methodology

By letter dated June 11, 2012,⁸ the licensee responded to the 50.54(f) letter that they intended to utilize the NRC endorsed walkdown guidelines contained in NEI 12-07. The licensee's walkdown submittal dated November 27, 2012, indicated that the licensee implemented the walkdowns consistent with the intent of the guidance provided in NEI 12-07. The licensee did not identify any exceptions from NEI 12-07.

Based on the NRC staff's review, the licensee appears to have presented information related to the implementation of the walkdown process as requested in the 50.54(f) letter, consistent with the walkdown guidance.

3.6 Walkdown Results

3.6.1 Walkdown Scope

The licensee performed walkdowns of 78 flood-protection features including site topography, site drains, the intake canal, flood plates, walls, floors, roofs, doors, seals, penetrations, manholes, and dikes. In addition, the licensee performed reasonable simulation of manual actions but did not explicitly identify which of the seven procedures were evaluated. Licensee evaluations were based on operating experience and tabletop discussions.

The licensee stated that all modes of plant operation were considered for the precipitation event and the PMH.

The licensee used acceptance criteria in accordance with NEI 12-07 including (1) feature configuration consistency with documentation, (2) lack of significant material degradation, (3) adequate time to implement procedures in consideration of available flood warning time, (4) adequacy of periodic inspections, (5) no adverse preventative maintenance implementation results, and (5) no topographic changes that prevent the intended function of the site drainage plan.

⁸ ADAMS Accession No. ML12171A013.

⁹ ADAMS Accession No. ML12173A215.

3.6.2 <u>Licensee evaluation of flood protection effectiveness, key findings, and identified</u> deficiencies

The licensee performed an evaluation of the overall effectiveness of the plant's flood-protection features. The licensee stated that, other than the identified deficiencies, the flood-protection and mitigation features were available and assessed to be able to provide their intended functions. The licensee stated that no other existing plant features were identified as being able to mitigate external flooding that were not already credited in the CLB. The licensee stated that reasonable simulations were conducted and determined that credited procedures were adequate. The licensee provided reasonable assurance that inaccessible features would not fail to provide their flood-protection functionality during adverse conditions.

NEI 12-07 defines a deficiency as follows: "a deficiency exists when a flood-protection feature is unable to perform its intended function when subject to a design basis flooding hazard." The licensee identified deficiencies because of the flooding walkdowns. The licensee identified three deficiencies during the flooding walkdown: (1) unsealed inaccessible manhole conduits that have an accessible conduit end in the Turbine Building, (2) unsealed conduits in two accessible manholes, and (3) the partially blocked storm drain inlets.

NEI 12-07 specifies that licensees identify observations in the CAP that were not yet dispositioned at the time the walkdown report was submitted. The licensee did not identify any observations awaiting disposition.

3.6.3 Flood Protection and Mitigation Enhancements

The licensee has implemented or planned the following enhancements that improve or increase flood protection or mitigation:

A new conduit seal would be installed in the Turbine Building by January 31, 2013. The licensee stated that adequate controls for ensuring that storm drain and yard changes would be in place by December 31, 2013. The licensee has also stated that adequate period programmatic controls for conduit and penetration seal inspection would be in place by December 31, 2013.

The licensee did determine that changes were necessary by the flooding walkdowns.

- New conduit seal would be installed in the Turbine Building by January 31, 2013.
- Development of adequate controls for ensuring that storm drain and yard changes would be in place by December 31, 2013.
- Development of adequate period programmatic controls for conduit and penetration seal inspection would be in place by December 31, 2013.

The NRC staff verified that the licensee has implemented these enhancements.

3.6.4 Deficiencies Noted and Actions Taken or Planned to Address

Licensee noted the following deficiencies and actions taken or planned to address the deficiencies: The licensee identified three deficiencies: (1) unsealed inaccessible manhole conduits which have an accessible conduit end in the Turbine Building, (2) unsealed conduits in two accessible manholes, and (3) the partially blocked storm drain inlets.

First, the conduit ends in Manhole 0-SE-MH-22 were not accessible and therefore not inspected and assumed to not be sealed. Because these conduits were not sealed at the Turbine Building end their condition was noted as a deficiency and was entered into the CAP. The licensee stated that the Turbine Building end of these conduits would be sealed by January 31, 2013.

Second, the ends of conduits were not sealed in Manholes 0-MH-SE-23 and 0-MH-SE-26 or at the Turbine Building ends of the same conduits and their condition was noted as a deficiency and entered into the CAP. Unlike Manhole 0-SE-MH-22, these manholes are accessible. The licensee stated that the manhole conduit ends will be sealed by July 31, 2013.

Third, the material conditions of the site storm drains were found to be unacceptable due to blocked or partially block storm drain inlets. The ability of some storm drains to perform their designed function was not fully analyzed after yard changes occurred. Routine storm drain maintenance was found to be insufficient to ensure an unobstructed flow path to the storm drains. The licensee noted this as a deficiency and entered it into the CAP. The licensee stated that periodic preventative maintenance of storm drains should be implemented and programmatic controls are needed to ensure the prevention of yard changes leading to flow paths being blocked. The licensee stated that the programmatic controls were to be in place by December 31, 2013. The NRC staff verified that the licensee has implemented these enhancements.

3.6.5 Staff Analysis of Walkdowns

The NRC staff reviewed the licensee walkdown report dated November 27, 2012. The NRC staff found that the walkdown report provided a description of the flood hazards and the flood mitigation strategy used at SPS. The licensee provided a description of the manual actions needed to implement the SPS flood protection procedures. It performed reasonable simulations and identified deficiencies and observations that were entered into the CAP. The licensee stated that three deficiencies were identified: (1) unsealed inaccessible manhole conduits that have an accessible conduit end in the Turbine Building, (2) unsealed conduits in two accessible manholes, and (3) the partially blocked storm drain inlets. The licensee stated that the deficiencies would be addressed by December 31, 2013. It also provided a description of the planned enhancements to the SPS flood protection features. The NRC staff verified that the licensee has implemented these enhancements.

Based on the NRC staff's review, the licensee appears to have provided results of the walkdown and described any other planned or newly installed flood protection systems or flood mitigation measures as requested in the 50.54(f) letter and consistent with the walkdown guidance. Based on the information provided in the licensee's submittals, the NRC staff concludes that the licensee's implementation of the walkdown process meets the intent of the walkdown guidance.

3.6.6 Available Physical Margin

The NRC staff issued a request for additional information (RAI) to the licensee regarding the available physical margin (APM) dated December 23, 2013¹⁰. The licensee responded by letter

¹⁰ ADAMS Accession No. ML13325A891.

dated January 30, 2014¹¹. The licensee has reviewed their APM determination process, and entered any unknown APMs into their CAP. The NRC staff reviewed the response, and concluded that the licensee met the intent of the APM determination per NEI 12-07.

Based on the NRC staff's review, the licensee appears to have documented the information requested for any cliff-edge effects, as requested in the 50.54(f) letter and consistent with the walkdown guidance. Further, the NRC staff reviewed the response, and concludes that the licensee met the intent of the APM determination per NEI 12-07.

3.7 NRC Oversight

3.7.1 Independent Verification by Resident Inspectors

On June 27, 2012, the NRC issued Temporary Instruction (TI) 2515/187 "Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns." In accordance with the TI, NRC inspectors independently verified that the SPS licensee implemented the flooding walkdowns consistent with the intent of the walkdown guidance. Additionally, the inspectors independently performed walkdowns of a sample of flood protection features. The inspection report dated April 30, 2013¹², documents the results of this inspection. No findings of significance were identified.

SSCS NOT WALKED DOWN

The licensee identified inaccessible features but no restricted access features.

4.1 Restricted Access

The licensee identified no restricted access features.

4.2 Inaccessible Features

The licensee identified the following inaccessible features: (1) conduit ends in Manhole 0-SE-MH-22, (2) buried portions of the storm drains, and (3) two locked high-radiation areas with inaccessible penetrations. The licensee provided reasonable assurance that inaccessible features are available and will perform its credited functions.

The licensee stated that the inaccessible manhole conduit end condition was entered into the CAP due to safety considerations. The licensee stated the Turbine Building ends of these conduits would be sealed to ensure that the flood-protection function of this feature will perform its intended function.

The licensee stated that the buried storm drain piping is too small for entry and the storm drain inlets were inspected for blockage and damage. The licensee stated that the inaccessible end of the conduit is being sealed on the other end. The licensee noted that deficiencies related to

¹¹ ADAMS Accession No. ML14035A229.

¹² ADAMS Accession No. ML13120A194

storm drains are being addressed in the CAP. However, the licensee noted that the inaccessible portion is able to remove some water.

The licensee stated that two locked high-radiation areas and one penetration were inaccessible at the time the walkdown. A condition report was generated which resulted in corrective actions to be taken to gain access to the penetration. The penetration was then accessible and the penetration was found to be sealed properly. The high-radiation areas were subsequently inspected and found to show no signs of water ingress. The licensee also reviewed plant drawings for these areas and found no penetrations for these high-radiation areas. The licensee stated these features which were initially identified as inaccessible were subsequently determined to be in acceptable conditions.

The NRC staff verified that the licensee has completed these actions.

5 CONCLUSION

The NRC staff concludes that the licensee's implementation of flooding walkdown methodology meets the intent of the walkdown guidance. The NRC staff concludes that the licensee, through the implementation of the walkdown guidance activities and, in accordance with plant processes and procedures, verified the plant configuration with the current flooding licensing basis; addressed degraded, nonconforming, or unanalyzed flooding conditions; and verified the adequacy of monitoring and maintenance programs for protective features. Furthermore, the licensee's walkdown results, which were verified by the NRC staff's inspection, identified no immediate safety concerns. The NRC staff reviewed the information provided and determined that sufficient information was provided to be responsive to Enclosure 4 of the 50.54(f) letter.

If you have any questions, please contact me at (301) 415-2597 or by e-mail at V.Sreenivas@nrc.gov.

Sincerely,

/RA/

Dr. V. Sreenivas, Project Manager Plant Licensing Branch II-1 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket No. 50-280 and 50-281

Enclosures:

Staff Assessment of Flooding Walkdown Report

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