UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, ILLINOIS 60532-4352

August 6, 2018

EA–18–030

Mr. Robert Craven
Site Director
NextEra Energy Point Beach, LLC
6610 Nuclear Road
Two Rivers, WI 54241-9516

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2—NRC INTEGRATED INSPECTION REPORT 05000266/2018002 AND 05000301/2018002 AND EXERCISE OF ENFORCEMENT DISCRETION

Dear Mr. Craven:

On June 30, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Point Beach Nuclear Plant, Units 1 and 2. On July 11, 2018, the NRC inspectors discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

A violation of the licensee's current site-specific licensing basis for tornado-generated missile protection was identified. Because this violation was identified during the discretion period covered by Enforcement Guidance Memorandum 15–002, "Enforcement Discretion for Tornado Missile Protection Noncompliance," and because the licensee was implementing compensatory measures, the NRC is exercising enforcement discretion by not issuing an enforcement action for the violation and allowing continued reactor operation.

Based on the results of this inspection, the NRC has identified one issue that was evaluated under the risk significance determination process as having very-low safety significance (Green). The NRC has also determined that a violation is associated with this issue. Because the licensee initiated condition reports to address this issue, this violation is being treated as a Non-Cited Violation (NCV), consistent with Section 2.3.2 of the Enforcement Policy. This NCV is described in the subject inspection report.

If you contest the violation(s) or significance of the(se) NCV(s), you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555–0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement; and the NRC Resident Inspector at the Point Beach Nuclear Plant.

If you disagree with a cross-cutting aspect assignment or a finding not associated with a regulatory requirement in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555–0001; with copies to the Regional Administrator, Region III; and the NRC resident inspector at the Point Beach Nuclear Plant.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at http://www.nrc.gov/reading-rm/adams.html and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Jamnes L. Cameron, Chief
Branch 4
Division of Reactor Projects/Safety

Docket Nos. 50–266; 50–301
License Nos. DPR–24 and DPR–27

Enclosure:
IR 05000266/2018002; 05000301/2018002

cc: Distribution via LISTSERV®

Letter to Robert Craven from James Cameron dated August 6, 2018

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2—NRC INTEGRATED INSPECTION REPORT 05000266/2018002 AND 05000301/2018002 AND EXERCISE OF ENFORCEMENT DISCRETION

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50–266; 50–301
License Nos:	DPR–24; DPR–27
Report No:	05000266/2018002; 05000301/2018002
Enterprise Identifier:	I–2018–002–016
Licensee:	NextEra Energy Point Beach, LLC
Facility:	Point Beach Nuclear Plant, Units 1 and 2
Location:	Two Rivers, WI
Dates:	April 1 through June 30, 2018
Inspectors:	T. Hartman, Senior Resident Inspector K. Barclay, Resident Inspector C. Hunt, Resident Inspector—Byron S. Bell, Health Physicist
Approved by:	J. Cameron, Chief Branch 4 Division of Reactor Projects/Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring licensee's performance by conducting an integrated quarterly inspection at Point Beach Nuclear Plant, Units 1 and 2, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to https://www.nrc.gov/reactors/operating/oversight.html for more information. Findings and violations being considered in the NRC's assessment are summarized in the table below.

List of Findings and Violations

Primary Auxiliary Building Floor Plug Removal Creates Unanalyzed Flood Path			
Cornerstone	Significance	Cross-cutting Aspect	Report Section
Mitigating Systems	Green NCV 050000266/2018002–01 Closed	[H.7] – Documentation	71111.15 – Operability Determinations and Functionality Assessments
A Green finding and associated Non-Cited Violation (NCV) of Title 10 of the *Code of Federal Regulations* Part 50, Appendix B, Criterion III, "Design Control," was identified by the inspectors for the licensee's failure to ensure that applicable regulatory requirements and design basis, for structures, systems, and components, were translated into procedures. Specifically, the licensee failed to include the floor plugs on the 26' level of the primary auxiliary building as credited flood barriers in procedure NP 8.4.7, PBNP Flooding Program.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
	EA–18–030	Unanalyzed Condition for Tornado Generated Missiles	71111.15	Discussed
LER	2018–001–00	Inadequate Protection from Tornado Missiles Identified Due to Nonconforming Conditions	71153	Closed

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PLANT STATUS

Unit 1 began the inspection period at rated thermal power. On April 19, 2018, the unit was down powered to 98 percent for auxiliary feedwater testing. The unit was returned to rated thermal power on April 19, 2018. On May 23, 2018, the unit was down powered to 58 percent for turbine valve testing. The unit was returned to rated thermal power on May 24, 2018, and remained at or near rated thermal power for the remainder of the inspection period.

Unit 2 began the inspection period at rated thermal power. On April 24, 2018, the unit was down powered to 98 percent for feedwater heater problems. The unit was returned to rated thermal power on April 25, 2018. On May 9, 2018, the unit was down powered to 58 percent for turbine valve testing. The unit was returned to rated thermal power on May 10, 2018, and remained at or near rated thermal power for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed plant status activities described in IMC 2515 Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01—Adverse Weather Protection

Summer Readiness (1 Sample)

The inspectors evaluated summer readiness of offsite and alternate alternating current (AC) power systems.

External Flooding (1 Sample)

The inspectors evaluated readiness to cope with external flooding on April 19, 2018.

71111.04—Equipment Alignment

Partial Walkdown (3 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

(1) G–05 gas turbine on May 18, 2018;
(2) Unit 1 component cooling water system train B on June 7, 2018; and
(3) Unit 2 component cooling water system train B on June 9, 2018.

Complete Walkdown (1 Sample)

The inspectors evaluated system configurations during a complete walkdown of the main feedwater isolation system on May 19, 2018.

71111.05AQ—Fire Protection Annual/Quarterly

Quarterly Inspection (5 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

(1) Fire Area 326, control room, on April 26, 2018;
(2) Fire Area 450, technical support center, on April 27, 2018;
(3) Fire Area 166, 2B32 motor control center room, on June 20, 2018;
(4) Fire Area 245, electrical equipment room — Unit 1, on June 20, 2018; and
(5) Fire Area 336, instrument rack room, on June 20, 2018.

71111.06—Flood Protection Measures

Cables (1 Sample)

The inspectors evaluated cable submergence protection in:

(1) cable vault Z–66A on May 7, 2018;
(2) cable vault Z–66B on May 7, 2018; and
(3) cable vault Z–66C on May 7, 2018.

71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

Operator Requalification (1 Sample)

The inspectors observed and evaluated crew F performing an as-found scenario on May 21, 2018.

Operator Performance (1 Sample)

The inspectors observed and evaluated operator response to a feedwater heating transient on April 24, 2018, and control room decorum with multiple surveillances in progress on June 6, 2018.

71111.12—Maintenance Effectiveness

Routine Maintenance Effectiveness (1 Sample)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

(1) repetitive failures of the cross-over steam dump valves to close after opening.

Quality Control (1 Sample)

The inspectors evaluated maintenance and quality control activities associated with the following equipment performance issues:

(1) multiple emergency diesel generator control relay failures.

71111.13—Maintenance Risk Assessments and Emergent Work Control (4 Samples)

The inspectors evaluated the risk assessments for the following planned and emergent work activities:

(1) Unit 1 and Unit 2 elevated risk due to emergent G–02 emergency diesel generator maintenance on April 10, 2018;
(2) Unit 2 emergent work due to 5B heater dump valve failed open on April 24, 2018;
(3) Unit 1 and Unit 2 elevated risk due to G–05 gas turbine OOS for maintenance on May 2–3, 2018; and
(4) Unit 1 and Unit 2 elevated risk due to W–86 primary auxiliary building battery and inverter room ventilation fan OOS for maintenance on June 6, 2018.

71111.15—Operability Determinations and Functionality Assessments (5 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

(1) unanalyzed condition for tornado generated missiles;
(2) black burn marks were found on the side of X–500 transformer;
(3) control room door gaps don't meet acceptance criteria;
(4) façade flooding protection modification evaluation; and
(5) G–04 emergency diesel generator fuel oil transfer pump failure.

71111.18—Plant Modifications (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

(1) EC 290770, 2P–10B suction pipe 10"–AC–601R–3 weight addition.

71111.19—Post Maintenance Testing (5 Samples)

The inspectors evaluated the following post maintenance tests:

(1) G–02 emergency diesel generator testing after control relay replacement on April 10, 2018;
(2) G–05 gas turbine testing after maintenance on May 3, 2018;
(3) G–01 emergency diesel generator starting air system testing after air valve replacement on May 4, 2018;
(4) PM–449A pressurizer pressure current-to-current converter testing after replacement on May 29, 2018; and
(5) P–32E service water pump breaker testing after replacement on June 4, 2018.

71111.22—Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (3 Samples)

(1) OI 135E, LHSI Core Deluge Venting Train A Inside Containment Unit 1, on May 25, 2018;
(2) IT 400, Test of 1P–53 Motor-Driven Auxiliary Feed Pump and Valves, on May 29, 2018; and
(3) TS 83, Emergency Diesel Generator G–03 Monthly, on May 30, 2018.

In-service (1 Sample)

(1) IT 05 Train B, Train B Containment Spray Pump and Valves Unit 1, on May 30, 2018.

71114.06—Drill Evaluation

Drill/Training Evolution (1 Sample)

The inspectors observed emergency response operations in the Simulated Control Room and the Technical Support Center on May 24, 2018.

RADIATION SAFETY

71124.08—Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation

Radioactive Material Storage (1 Sample)

The inspectors evaluated the licensee's radioactive material storage.

Radioactive Waste System Walk-down (1 Sample)

The inspectors evaluated the licensee's radioactive waste processing facility during plant walkdowns.

Waste Characterization and Classification (1 Sample)

The inspectors evaluated the licensee's radioactive waste characterization and classification.

Shipment Preparations (1 Sample)

The inspectors evaluated the licensee's radioactive material shipment preparation processes.

Shipment Records (1 Sample)

The inspectors evaluated the licensee's non-excepted package shipment records.

OTHER ACTIVITIES – BASELINE

71151—Performance Indicator Verification (4 Samples)

The inspectors verified licensee performance indicators submittals listed below:

(1) MS05: Safety System Functional Failures (SSFFs) Sample–2 Samples (April 1, 2017–March 30, 2018); and
(2) BI02: RCS Leak Rate Sample–2 Samples (April 1, 2017–March 30, 2018).

71152—Problem Identification and Resolution

Semiannual Trend Review (1 Sample)

The inspectors reviewed the licensee's corrective action program for trends that might be indicative of a more significant safety issue.

71153—Follow-Up of Events and Notices of Enforcement Discretion

Licensee Event Reports (1 Sample)

The inspectors evaluated the following licensee event reports, which can be accessed at https://lersearch.inl.gov/LERSearchCriteria.aspx:

(1) Licensee Event Report (LER) 05000266/2018–001–00, Inadequate Protection from Tornado Missiles Identified Due to Nonconforming Conditions. This technical issue was the subject of a previously documented finding of very low safety significance and enforcement discretion (05000266/2018001; 05000301/2018001, EA 18–030, Unanalyzed Condition for Tornado Generated Missiles (ADAMS Accession Number ML18128A229)).

INSPECTION RESULTS

71111.15—Operability Determinations and Functionality Assessments

Enforcement Discretion	Enforcement Action: EA–18–030: Unanalyzed Condition for Tornado Generated Missiles	71111.15

Description:

On June 10, 2015, the NRC issued Regulatory Issue Summary (RIS) 2015–06, "Tornado Missile Protection" (ML15020A419), focusing on the requirements regarding tornado-generated missile protection and required compliance with the facility-specific licensing basis. The RIS also provided examples of noncompliance that had been identified through different mechanisms and referenced Enforcement Guidance Memorandum (EGM) 15–002, "Enforcement Discretion For Tornado Generated Missile Protection Non-Compliance," which was also issued on June 10, 2015, (ML15111A269) and revised on February 7, 2017, (ML16355A286). The EGM applies specifically to a SSC that is determined to be inoperable for tornado generated missile protection. The EGM stated that a bounding risk analysis performed for this issue concluded that tornado missile scenarios do not represent an immediate safety concern because their risk is within the LIC–504, "Integrated Risk-Informed Decision-Making Process for Emergent Issues," risk acceptance guidelines. In the case of

Point Beach, the EGM provided for enforcement discretion of up to three years from the original date of issuance of the EGM.

The EGM allowed NRC staff to exercise this enforcement discretion only when a licensee implements, prior to the expiration of the time mandated by the LCO, initial compensatory measures that provided additional protection such that the likelihood of tornado missile effects were lessened. In addition, licensees were expected to follow these initial compensatory measures with more comprehensive compensatory measures within approximately 60 days of issue discovery. The comprehensive measures should remain in place until permanent repairs are completed, or until the NRC dispositions the non-compliance in accordance with a method acceptable to the NRC such that discretion is no longer needed.

Table 1.3–1 of the Point Beach Final Safety Analysis Report (FSAR) states, in part, that SSCs, which are essential to the prevention and mitigation of nuclear accidents, shall be designed, fabricated, and erected to withstand the forces that might reasonably be imposed by the occurrence of an extraordinary natural phenomenon, such as a tornado. On March 1, 2018, the licensee initiated AR 02252240, identifying a nonconforming condition of Table 1.3–1. Specifically, on both units 1 and 2, the steam supply lines and exhaust stacks for the turbine-driven auxiliary feedwater pumps, the main steam isolation valves, the atmospheric steam dumps, the main steam safety valves, and the vents for T–175B bulk fuel oil storage tank were not adequately protected from tornado-generated missiles. The licensee declared the affected SSCs inoperable and promptly implemented compensatory measures designed to reduce the likelihood of tornado-generated missile effects. The condition was reported to the NRC as Event Notice 53239 as an unanalyzed condition and potential loss of safety function.

Enforcement discretion was previously authorized and documented in Inspection Report 05000266/2018001 (ADAMS Accession Number ML18128A229).

Corrective Actions: The licensee documented the inoperability of the SSCs and the affected TS LCO conditions in the CAP and in the control room operating log. The shift manager notified the NRC resident inspector of implementation of EGM 15–002, and documented the implementation of the compensatory measures to establish the SSCs “operable but nonconforming” prior to expiration of the LCO required action.

The licensee’s immediate compensatory measures included:

- review and revision of procedures for a tornado watch and a tornado warning to provide additional instructions for operators preparing for tornados and/or high winds, and a potential loss of SSCs vulnerable to the tornado missiles;
- confirmation of readiness of equipment and procedures dedicated to the Diverse and Flexible Coping Strategy (FLEX);
- verification that training was up to date for individuals responsible for implementing preparation and response procedures; and
- establishment of a heightened station awareness and preparedness relative to identified tornado missile vulnerabilities.

The licensee’s longer term compensatory measure was to modify AOP–13C, “Severe Weather Conditions” procedure, to include actions for removing potential airborne hazards and damage assessments for systems with a vulnerability to damage from tornado missiles.

Corrective Action Reference: AR 2252240

Enforcement:

Violation: The enforcement discretion was applied to the required shutdown actions of the following TS LCOs for both units:

- TS 3.0.3, General Shutdown LCO (cascading or by reference from other LCOs);
- TS 3.7.1, Main Steam Safety Valves (MSSVs);
- TS 3.7.2, Main Steam Isolation Valves (MSIVs) and Non-Return Check Valves;
- TS 3.7.4, Atmospheric Dump Valve (ADV) Flowpaths;
- TS 3.7.5, Auxiliary Feedwater (AFW);
- TS 3.8.1; AC Sources — Operating; and
- TS 3.8.3, Diesel Fuel Oil and Starting Air.

Severity/Significance: The subject of this enforcement discretion, associated with tornado missile protection deficiencies, was determined to be less than red (i.e., high safety significance) based on a generic and bounding risk evaluation performed by the NRC in support of the resolution of tornado-generated missile non-compliances. The bounding risk evaluation is discussed in Enforcement Guidance Memorandum 15–002, Revision 1, "Enforcement Discretion for Tornado-Generated Missile Protection Non-Compliance," and can be found in ADAMS Accession Number ML16355A286.

Basis for Discretion: The NRC exercised enforcement discretion in accordance with Section 2.3.9 of the Enforcement Policy and EGM 15–002 because the licensee initiated initial compensatory measures that provided additional protection such that the likelihood of tornado missile effects were lessened. The licensee implemented more comprehensive compensatory measures to address the nonconforming conditions within the required 60 days. These comprehensive actions are to remain in place until permanent repairs are completed, which, for Point Beach, were required to be completed by June 10, 2018, or until the NRC dispositioned the non-compliance in accordance with a method acceptable to the NRC, such that discretion was no longer needed. On April 26, 2018, the licensee submitted a request to extend the enforcement discretion in letter titled "Request to Extend Enforcement Discretion Provided in Enforcement Guidance Memorandum 15–002 for Tornado-Generated Missile Protection Non-conformances Identified in Response to Regulatory Issues Summary 2015–06, 'Tornado Missile Protection'." On May 21, 2018, the NRC approved this request and extended the enforcement discretion until June 10, 2020.

The disposition of this enforcement discretion closes LER 2018–001–00.

Primary Auxiliary Building Floor Plug Removal Creates Unanalyzed Flood Path			
Cornerstone	Significance	Cross-cutting Aspect	Report Section
Mitigating Systems	Green NCV 050000266/2018002–01 Closed	[H.7] – Documentation	71111.15 – Operability Determinations and Functionality Assessments

A Green finding and associated Non-Cited Violation (NCV) of Title 10 of the *Code of Federal Regulations* (CFR) Part 50, Appendix B, Criterion III, "Design Control," was identified by the inspectors for the licensee's failure to ensure that applicable regulatory requirements and design basis, for structures, systems, and components, were translated into procedures. Specifically, the licensee failed to include the floor plugs on the 26' level of the primary auxiliary building (PAB) as credited flood barriers in procedure NP 8.4.7, PBNP Flooding Program.

Description:

At approximately 10:00 a.m. on October 15, 2017, with Unit 1 shutdown and core defueling in-progress, the licensee, in preparation for a Unit 1 RHR heat exchanger inspection, removed a floor plug on the 26' level of the primary auxiliary building (PAB).

During a review of station logs, the inspectors noted that the licensee had removed the RHR floor plug before the core was fully offloaded and asked the licensee if they had evaluated the flooding implications of removing the floor plug. The licensee reviewed the issue and concluded that they had created an unanalyzed flood path to the Unit 1 RHR pumps in the lower level of the PAB.

At the time of the floor plug removal, the Unit 1 reactor cavity was flooded up to refueling height and the core was in the process of being defueled with 69 of 121 fuel assemblies removed from the core. LCO 3.9.4, Residual Heat Removal (RHR) and Coolant Circulation-High Water Level, was applicable, and required that one RHR loop be operable and in operation. The B RHR pump was running and operable and A RHR pump was considered available. The mode of applicability for the Unit 1 RHR system ended at 12:40 a.m. on October 16, 2017, when the core was completely defueled.

The inspectors reviewed the completed penetration permit for the floor plug removal and identified a line item pertaining to flooding, which stated, "Per NP 8.4.17, is this barrier considered a flood barrier? If No, signature not required." The applicable line item on the penetration permit was marked "No." The inspectors reviewed NP 8.4.7, PBNP Flooding Program, Revision 28, and found that the floor plug was not listed as a credited barrier in Table 1, Flood Protection Features.

The licensee evaluated the new flooding pathway in a past operability determination and found that, in multiple flooding events, flood waters reached both Unit 1 RHR pump rooms. Overall, the licensee concluded that either the additional flood waters would have been spread-out between the two Unit 1 RHR pump flood zones, with the worst-case scenario having water levels just 1.3" under the 22" RHR operability limit for both pumps or the flood waters would have accumulated in the B RHR pump room above the 22" operability limit and

resulted in the loss of the B RHR pump. The internal flooding analysis results with the floor plug installed has both RHR pump rooms remaining dry with no flood waters reaching the rooms.

Corrective Actions: The licensee's corrective actions included painting a flood barrier designator on each of the four floor plugs above the RHR heat exchangers and updating procedure NP 8.4.17 to include the RHR floor plugs in Table 1, Flood Protection Features, as having a flood barrier function.

Corrective Action Reference: Action Request 02230963, "Flood Path to Unit 1 RHR Pump Cubicles Created"

Performance Assessment:

Performance Deficiency: The licensee failed to protect the Unit 1 RHR pumps from internal flooding as required by the Final Safety Analysis Report section A.7, Plant Flooding, which is a performance deficiency. Specifically, the licensee removed a floor plug, which created an unanalyzed internal flood path from the 26' level of the primary auxiliary building (PAB) to the Unit 1 RHR pump rooms.

Screening: The inspectors determined the performance deficiency was more than minor because it adversely affected the design control attribute of the Mitigating Systems Cornerstone and its objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee created an unanalyzed flood path to the Unit 1 RHR pumps that allowed potential flood waters to reach the Unit 1 RHR cubicles.

Significance: The finding affected the Mitigating Systems Cornerstone and was screened in accordance with IMC 0609, Appendix G, Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Initial Screening and Characterization of findings." The inspectors determined that the finding screened as potentially risk significant using the criteria in Exhibit 5, "External Events Screening Questions." Specifically, if the 'B' RHR pump, which was the operating pump, was assumed to be completely failed, a loss of decay heat removal, which was a Table G1 event, would have occurred. Therefore, the inspectors answered Yes to question 6 of Exhibit 3, "Mitigating Systems Screening Questions," and screened the issue to a detailed risk evaluation. The inspectors consulted the Region III SRA, who concluded that the finding was of very low safety significance. Specifically, the short exposure time coincident with Unit 1 being in plant operational state (POS) 3, resulted in the issue being of very low safety significance. Plant operational state 3 represents the condition where refueling cavity water level is at or above the minimum water level for movement of irradiated fuel assemblies within the containment.

Cross-cutting Aspect: The inspectors determined this finding affected the Cross-Cutting area of Human Performance in the aspect of Documentation, where the organization creates and maintains complete, accurate and up-to-date documentation. Specifically, the licensee failed to ensure that NP 8.4.17 was a complete and accurate procedure. NP 8.4.17, was not complete and accurate because it contained an incomplete list of flood barriers used to protect the safety-related RHR pumps. [H.7]

Enforcement:

Violation: Title 10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that measures be established to assure that the design basis for safety-related functions of SSCs are correctly translated into specifications, drawings, procedures, and instructions.

Contrary to the above, prior to June 19, 2018, the licensee failed to establish measures to assure that the design basis for safety-related functions of SSCs are correctly translated into specifications, drawings, procedures, and instructions. Specifically, the licensee failed to include the RHR heat exchanger floor plugs as credited flood barriers in procedure NP 8.4.17, "PBNP Flooding Program," Revision 28.

Disposition: This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy.

71152—Problem Identification and Resolution

Observation	71152 – Semi Annual Trend Review

During the course of the review period for this inspection sample, the inspectors noted several examples where the licensee's implementation of NFPA 805 was less than adequate. Although these errors did not result in any immediate significant safety consequences, a potential trend in this area is apparent and suggests that additional licensee attention may be appropriate. Specific examples associated with this trend included, but were not limited to:

- April 12, 2017: the licensee determined that the breaker associated with a system isolation valve was assumed open for their NFPA 805 assumptions (hot short concern), but was found shut. A Green NCV was issued in Inspection Report 05000266/2017004 (ADAMS Accession Number ML18031B008).
- March 13, 2018: while performing door inspections, the licensee determined 10 doors did not meet the gap requirements for NFPA 805.
- April 11, 2018: the licensee discovered that plant modifications installed to support the fire protection transition to NFPA 805 did not address all necessary vulnerabilities. The licensee had already secured the compensatory measures (fire watches.)
- June 6, 2018: while investigating a deficient condition on a 480V MCC cabinet, the licensee determined the cabinet did not meet the requirements of NFPA 805 for a greater than 440V panel. An extent of condition identified a total of 27 cabinets with this issue.

Each of the observations above represented failures of the licensee's transition of their fire protection program to NFPA 805 and were entered into their CAP. The licensee is aware of the trend and is addressing it at a fleet level.

EXIT MEETINGS AND DEBRIEFS

The inspectors confirmed that proprietary information was controlled to protect from public disclosure. No proprietary information was documented in this report.

- On June 22, 2018, the inspector presented the radiation protection program inspection results to Mr. R. Craven, Site Director, and other members of the licensee staff.

- On July 11, 2018, the inspector presented the quarterly integrated inspection results to Mr. R. Craven, and other members of the licensee staff.

DOCUMENTS REVIEWED

71111.01—Adverse Weather Protection

- AOP-13C; Severe Weather Conditions; Revision 44
- Calculation 2014-06279; Time Available to Respond to Rising Lake Level; Revision 0
- EC 281811; External Wave Run-Up Flood Mitigation Strategy; Revision 2
- NP 2.1.5; Electrical Communications, Switchyard Access and Work Planning; Revision 28
- NP 5.2.19; NERC Standard NUC–001 Nuclear Plant Interface Coordination Agreement Control; Revision 2
- NP 8.4.17; PBNP Flooding Program; Revision 28
- OP-AA-102-1002; Seasonal Readiness; Revision 25
- PBNP–MISO–NUC–001; Nuclear Plant Operating Agreement for Point Beach Nuclear Plant; October 24, 2013
- RMP 9422; Circulating Water Pumphouse and Turbine Hall Barrier Placement; Revision 2
- WO 40540683 01; PC 6 Part 9 Operations Flood Equipment Inventory

71111.04—Equipment Alignment

- 1-CL-CC-001; Component Cooling Unit 1; Revision 18
- 1-CL-MFIV-001; Main Feedwater Isolation Valves Unit 1; Revision 1
- 2-CL-CC-001; Component Cooling Unit 1; Revision 17
- 2-CL-MFIV-001; Main Feedwater Isolation Valves Unit 2; Revision 1
- CL 16A; Gas Turbine G05; Revision 28
- Drawing 110E018, Sheet 1; P&ID Auxiliary Coolant System Unit 1; Revision 71
- Drawing 110E018, Sheet 2; P&ID Auxiliary Coolant System Unit 1; Revision 22
- Drawing 110E018, Sheet 3; P&ID Auxiliary Coolant System Unit 1; Revision 44
- Drawing 110E029, Sheet 1; P&ID Auxiliary Coolant System Unit 2; Revision 57
- Drawing 110E029, Sheet 2; P&ID Auxiliary Coolant System Unit 2; Revision 17
- Drawing 110E029, Sheet 3; P&ID Auxiliary Coolant System Unit 2; Revision 45
- Drawing 499B466, Sheet 779B; Elementary Wiring Diagram Feedwater System Remote Operated Valve 2CS-466; Revision 4
- Drawing ICGWH003M05000, Sheets 10–11; G-05 Upgrade Lube, Control Oil, Air, & Fuel Schematic – Fuel System 12431; Revision 3
- Drawing ICGWH003M05000; Sheet 8; G-05 Upgrade Lube, Control Oil, Air, & Fuel Schematic – Fuel System 12431; Revision 5
- Drawing M-202, Sheet 2; Feedwater System; Revision 56
- Drawing M-209, Sheet 5; P&ID Instrument Air; Revision 40
- Drawing M-209, Sheet 7; P&ID Instrument Air; Revision 47
- Drawing M-2202, Sheet 2; P&ID Feedwater System; Revision 58
- Drawing P-111; System Isometric Feedwater System Loop A & B Unit 1; Revision 6
- Drawing PBE-7043; Feedwater Isolation Valve Control Schematic; Revision 1
- Drawing PBM-2332; P&ID Instrument Air Containment Purge Valve Pneumatic Control Valve Point Beach N.P. Unit 1; Revision 11
- Drawing PBM-332; P&ID Instrument Air Containment Purge Valve Pneumatic Control Valve Point Beach N.P. Unit 2; Revision 10
- EC 11954; Unit 1 Main Feedwater Isolation Valve Addition; Revision 0
- PC 29; Gas Turbine and Auxiliary Diesel Load Test; Revision 64

71111.05AQ—Fire Protection Annual/Quarterly

- PFP-0-CB; Pre-Fire Plan, Control Building Elev 8 ft, 26 ft, 44 ft, and 66 ft; Revision 1
- PFP-0-PAB-8; Pre-Fire Plan, Primary Auxiliary Building Elevations 8’ and Below; Revision 0
- PFP-0-PAS; Pre-Fire Plan, Protected Area South (Inside the Fence); Revision 1
- PFP-1-TB 44; Pre-Fire Plan, Turbine Hall Building Elev 44 ft; Revision 0

71111.06—Flood Protection Measures

- E-100, Sheet 1; Electrical Plot Plan Details; Revision 40
- E-252501; Yard Area Underground Piping Arrangement Plan & Sections; Revision 5
- E-353401; Yard Area Diesel Generator Ductbank Plan; Revision 10
- E-353406; Yardwork Concrete Manhole Details Sheet 2; Revision 5
- NP 7.7.28 Cable Condition Monitoring Program; Revision 7

71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

- AOP-2B U2; Feedwater System Malfunction; Revision 18
- AOP-17A U2; Rapid Power Reduction; Revision 24
- OP-AA-100; Operations Expectations; Revision 3
- OP-AA-100-1000; Conduct of Operations; Revision 24
- OP-AA-100-1003; Scheduling Control Room Activities; Revision 2
- PBN LOC 18C 001E; As Found; Revision 0

71111.12—Maintenance Effectiveness

- AR 2042881; U1 #4 Crossover Steam Dump Failed to Auto Reseat
- AR 2089098; 1-OS-DV-2 and 1-OS-DV-4 Failed to Reseat
- AR 2093604; Auto Reseat Steam Failures of 1OS-00004-DV
- AR 2104310; 1-OS-00004 DV/XOVER Dump Valve Failed to Reseat in Auto
- AR 2151782; G-01 LWD (Low Water Delay) Relay Unsat Reading As Found
- AR 2153865; Replace 13 Square D Time Delay Relays on G-01
- AR 2153868; Replace 13 Square D Time Delay Relays on G-02
- AR 2229804; Machine Replacement Floating Washer
- AR 2230065; 1OS-4-DV AS Found Condition
- AR 2235423; 2OS-DV-1 Failed to Shut During Performance of 2-PT-MS-003
- AR 2249713; New G-02 EDG Relays Not Qualified Same As Existing
- AR 2250023; G-02 EDG Right Air Start Motor Did Not Function
- AR 2250025; G-02-AM-01: South Air Start Motor Did Not Function
- AR 2250041; Start Fail Relay For G-02 Aux Contact Anomaly PWE
- AR 2250045; C-035; Agastat Relay Extent of Condition
- AR 2250057; C-034; Extent of Condition Relay Inspection
- AR 2263522; 2OS-1-DV Failed to Shut, Service Air Applied
- Documentation of Maintenance Rule Performance Criteria; System: DG; October 3, 2013
- Drawing PBM-241; P&ID Turbine Crossover Steam Dump; Revision 22
- EC 289938; Material Change and Reduction of Orifice Size of Crossover Steam Dump Valve Floating Washer; Revision 0
- Maintenance Rule (a)(1) Action Plan; System: Cross-Over Steam Dump; November 15, 2017
- Material Test Report; Part Number 7012PBLL; Cat ID 1746671-2; February 19,2018
- Procurement Engineering Evaluation Record 476559

- Procurement Engineering Evaluation Record 477847
- Procurement Engineering Evaluation Record 480425
- WO 40488213 04; G-02 / Perform Contact Verification of CID # 1746671
- WO 40587597 03; Testing of Removed SFD2 Relay

71111.13—Maintenance Risk Assessments and Emergent Work Control

- AOP-17A U2; Rapid Power Reduction; Revision 24
- AOP-2B U2; Feedwater System Malfunction; Revision 18
- AR 2261265; U2 Feedwater Transient
- NP 10.3.7; On-Line Safety Assessment; Revision 40
- PBN Unit 1 Current Risk Summary Reports; April 10, 2018; May 2–4, 2018; June 6, 2018
- PBN Unit 1 Historical Risk Data Reports; April 9–11, 2018; April 30–May 5, 2018; June 6, 2018
- PBN Unit 1 Plant Configuration Report; June 6, 2018
- PBN Unit 2 Current Risk Summary Reports; April 10, 2018; May 2–4, 2018; June 6, 2018
- PBN Unit 2 Historical Risk Data Reports; April 10, 2018; April 30–May 5, 2018; June 6, 2018
- PBN Unit 2 Plant Configuration Reports; April 10, 2018; June 6, 2018; May 1, 2, and 4, 2018
- Station Logs; April 9–10, 2018; April 30, 2018–May 4, 2018
- WR 94176589; 2LIC-2513/Verify Controller is Operating Correctly

71111.15—Operability Determinations and Functionality Assessments

- AOP-13C; Severe Weather Conditions; Revisions 43–45
- AR 2004858; Question Screening of AR 2002825 For Functionality
- AR 2227118; Revise FA 2004858 (Flooding Program) – PWE
- AR 2230963; Flood Path To Unit 1 RHR Pump Cubicles Created
- AR 2230963; Flood Path To Unit RHR Pump Cubicles Created
- AR 2243011; Failure To Implement Comp Actions On Completion of FA
- AR 2252240; Tornado Missile Protection
- AR 2255708; Door #61 Gap Criteria
- AR 2255709; Door #62 Gap Criteria
- AR 2262104; Black Burn Marks Were Found On The Side Of The X-500 XFMR
- AR 2262960; P-207B G-04 Transfer Pump Tripped
- AR 2269213; Non-Conservative Rounding During Performance of G-05 Work
- AR 2269521; Insignificant Error In NP 8.4.17 Update
- Calculation 2014-0007; Allowable Flood Levels; Revision 2
- Calculation 2014-02058; Internal Flooding Effects; Revision 0
- Drawing 684J741, Sheet 1; P&ID Chemical & Volume Control; Revision 66
- Drawing 684J741, Sheet 1A; P&ID Chemical & Volume Control; Revision 76
- Drawing 684J741; Sheet 1; P&ID Chemical and Volume Control; 66
- Drawing C-140; PAB Central Part Plan EL 8FT. & 26FT.
- Drawing M-150; Auxiliary Building Radwaste Drainage Area 8; Revision 6
- Drawing M-152; Auxiliary Building Drainage Area 5; Revision 4
- Drawing M-154; Auxiliary Building Drainage Area 8; Revision 4
- Drawing M-158; Auxiliary Building Drainage Area 8; Revision 8
- Drawing M-301; Floor & Wall Penetrations Key Plan Intermediate Floors; Revision 6
- Drawing M-335; Wall Penetrations Area 8; Revision 3
- Drawing M-336; Wall Penetrations Area 8; Revision 4
- Drawing M-337; Wall Penetrations Area 8; Revision 4
- NP 8.4.17; PBNP Flooding Program; Revision 28

- PBF-0034; Penetration Permit; Revision 14; Completed for 26' PAB WO 40357530 01
- PBF-0034; Penetration Permit; Revision 14; Completed for 46' PAB WO 40357530 01
- Station Log for Mid Shift on March 8, 2018
- Station Log for Swing Shift on March 1, 2018
- Station Logs; October 10-16, 2018
- WO 40556437 01; H-509 Switchgear and Buswork Inspection
- WO 40599530 01; Black Burn Marks Were Found On The Side Of The X-500 XFMR

71111.18—Plant Modifications

- AR 2252938; 2P-10B Vibrations Post-Coupling Replacement
- AR 2253405; Potential Incorrect Use of Temp Mod in Support of Maintenance
- EC 290751; 2P-10B Suction Pipe 10"-AC-601R-3 Weight Addition; Revision 0
- EC 290770; 2P-10B Suction Pipe 10"-AC-601R-3 Weight Addition; Revision 0
- EN-AA-203-1201-F02; 10 CFR 50.59 Screening Form; Revision 3; Completed for EC 290770
- WO 40577277; 2P-10B RHR Pump Increasing Vibration Trend

71111.19—Post Maintenance Testing

- AR 2253944; PMT Not Specified For Spent Fuel Pool Service Water MOVs
- Drawing 10665 BD-13; Block Diagram – Instrument Reactor Control System Pressurizer Pressure Control; Revision 16
- Drawing 10668 BD-10; Block Diagram – Instrument Reactor Protection System Pressurizer Pressure Control; Revision 4
- Drawing 10668 CD-08; Sheet 2; Wiring Diagram Interconnect Reactor Protection System Rack 1-Y1 (1C118) Bottom; Revision 08
- Drawing 499B466; Sheet 394B; Elementary Wiring Diagram Service Water Pump P-032E; Revision 3
- Drawing 8413730, Sheet 23; Schematic Diagram Diesel Generator G02 Start No. 2 Circuitry; Revision 11
- Drawing M-209, Sheet 12; P&ID Em. Diesel Air Starting System; Revision 22
- IT 100 G-01; Seat Leakage Test of Diesel Air Compressor Discharge Check Valves G-01; Revision 2; Completed on May 4, 2018
- RMP 9043-50; Electro-Motive Division Ball Valve Rebuild; Revision 5
- Station Logs Search; April 4, 2018–May 4, 2018
- WO 40497727 02; 2B52-27C; Setup and Stage Spare Breaker Using RMP 9369-1
- WO 40497727 04; 2B52-27C; Perform Breaker Swap Using Prepared Spare
- WO 40497727 05; 2B52-27C; OPS PMT/RTS
- WO 40551577 01; PC-29; G-05 Gas Turbine Generator Load Testing
- WO 40555257 01; 2018 G-05 Maintenance Outage Tasks
- WO 40559503 01; B52-DB50-060; Breaker Maint Per RMP 9303 AND RMP 9369-1
- WO 40587062 02; DA-101 Leaks By Shut Seat
- WO 40591561 01; Replace DA-101
- WO 40593541; G-02-LO-01 / South Air Motor Had No Oil Residue
- WO 40593752; DA-3058B, Potential Reduced Air Flow Capacity
- WO 40595729; G-02, South Air Bank Motors Failed to Engage During TS 82
- WO 40595861; 1PT-449A Pressure is Lower Than Other Channels
- WO 40598530 01; DA-104 Leaks By
- WO 40598530 03; DA-104 Leaks By/PMT/RTS

71111.22—Surveillance Testing

- Calculation 2010-0010; Acceptance Criteria for GAMP Sentinel Points; Revision 2
- IT 05 Train B; Train B Containment Spray Pump and Valves Unit 1; Revision 4
- SCR 2011-0104; Establishing Acceptance Criteria for 1/2AF-4073 A/B and 1/2AF-4074A/B AOVs; June 6, 2011
- SCR 2011-0107; Revision to IT 400 to Incorporate 1P-53 MDAFW IST Acceptance Criteria; June 10, 2011
- SCR 2011-0108; Revision to IST Acceptance Criteria for 1/2AF-196 CV Full Open Inservice Test; June 16, 2011
- WO 40552732 01; Perform UT of Unit 1 Train A Sentinel Points (IN CTMT)
- WO 40553643 01; Test of 1P-53 Motor-Driven Aux Feed Pump and Valves
- WO 40553659 01; TS 83, G-03 EDG Operability Test

71114.06—Drill Evaluation

- Emergency Preparedness 2nd Quarter 2018 EP Drill; Revision 0
- EPIP 2.1 Attachment B; Nuclear Accident Reporting Form (NARS) for NUE; Revision 58
- EPIP 2.1 Attachment B; Nuclear Accident Reporting Form (NARS) for Alert; Revision 58
- EPIP 2.1 Attachment B; Nuclear Accident Reporting Form (NARS) for SAE; Revision 58

71124.08—Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation

- 10 CFR 61 Analysis; ALPs System Media; April 20, 2018
- 10 CFR 61 Analysis; ALPs System Media; February 1, 2017
- 10 CFR 61 Analysis; Dry Active Waste; December 14, 2017
- 10 CFR 61 Analysis; Dry Active Waste; February 3, 2015
- 10 CFR 61 Analysis; Primary Resin; April 18, 2017
- 17-038; Radioactive Waste Shipment – Resin; July 20, 2017
- 17-068; Radioactive Waste Shipment – Dry Active Waste; October 23, 2017
- 17-070; Radioactive Material Shipment – Welding Equipment; October 30, 2017
- 18-022; Radioactive Waste Shipment – ALPS System Media; May 9, 2018
- AR 2207736; Evaluate Outdoor Containers Per RP-AA-107-1002; May 30, 2017
- AR 2255557; Rusty 55 Gallon Barrels in Warehouse 5; March 22, 2018
- AR 2255765; Caps in Radwaste Shipment Documentation; March 23, 2018
- AR 2266658; Loose Contamination Found on DFS Trailer in PAB Yard; June 1, 2018
- AR 2269220; 10 CFR 61 Procedure is not aligned with Industry Standards; June 21, 2018
- Letter; From Point Beach to NRC Regarding IE Bulletin 79-19; September 24, 1979
- List; Abandoned and Unused Radioactive Waste Equipment; May 23, 2018
- Outdoor Container Logs; May 28, 2018
- Process Control Program; Revision 6
- RDW 18.1.1; 10 CFR61 Sampling Program; Revision 4

- RDW 19.10; Movement of Radioactive Material form One Radiologically Controlled Area to Another; Revision 4
- RP-AA-108-1002; Shipment of Radioactive Material; Revision 11
- RP-AA-108-1003; Radioactive Material Surveys for Shipment; Revision 6
- RP-AA-108-1004; Packaging Radioactive Material for Shipment; Revision 2
- Self Assessment; Radiation Protection and Radwaste; March 5, 2018
- Self Assessment; RDW Procedures; May 24–27, 2018
- Self Assessment; RP Baseline Inspection Procedure 71124.08; April 30–May11, 2018
- Training Records; Radioactive Material and Waste; Various Records

71151—Performance Indicator Verification

- LI-AA-100-10003; NRC Performance Indicators; Revision 1
- NP 5.2.16; NRC Performance Indicators; Revision 20
- PB Unit 1; Reactor Coolant System Leakage; 2Q2017 through 1Q2018
- PB Unit 2; Reactor Coolant System Leakage; 2Q2017 through 1Q2018
- Performance Indicators; Reactor Coolant System Leakage, Units 1 and 2; 2Q2017 through 1Q2018
- Performance Indicators; Safety System Functional Failures, Units 1 and 2; 3Q2017 through 1Q2018
- SOMS Operator Rounds Module Data for Units 1 and 2; April 2017 through March 2018

71152—Problem Identification and Resolution

- AR 2217131; Level 1 Assessment – Gaps in FP Program Identified FP Summit
- AR 2253892; NFPA 805 Fire Door(s)
- AR 2259195; Mods Do Not Completely Resolve MOD-26-3 for NFPA 805
- AR 2267330; NFPA 805 Potentially Incorrect Assessed Ignition Source
- AR 2268488; Well Sealed Cabinet Review – Extent of Condition
- AR 2269535; Point Beach Electrical Panel Ignition Source Issues

71153—Follow-Up of Events and Notices of Enforcement Discretion

- AOP-13C; Severe Weather Conditions; Revisions 43–45
- AR 2252240; Tornado Missile Protection
- Station Log for Swing Shift on March 1, 2018
- Station Log for Mid Shift on March 8, 2018