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

November 8, 2017

Mr. Robert Coffey
Site Vice President
NextEra Energy Point Beach, LLC
6610 Nuclear Road
Two Rivers, WI 54241

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2—NRC INTEGRATED INSPECTION REPORT 05000266/2017003 AND 05000301/2017003

Dear Mr. Coffey:

On September 30, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Point Beach Nuclear Plant, Units 1 and 2. On October 10 and October 25, 2017, 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.

Based on the results of this inspection, the NRC has identified two issues that were evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has also determined that two violations are associated with these issues. Because the licensee initiated condition reports to address these issues, these violations are being treated as Non-Cited Violations (NCVs), consistent with Section 2.3.2 of the Enforcement Policy. These NCVs are described in the subject inspection report.

If you contest the violations or significance of these NCVs, 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.

In addition, 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 Cameron, Chief
Branch 4
Division of Reactor Projects

Docket Nos: 50–266; 50–301
License Nos: DPR–24; DPR–27

Enclosure:
IR 05000266/2017003; 05000301/2017003

cc: Distribution via LISTSERV®

Letter to Robert Coffey from Jamnes Cameron dated November 8, 2017

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2—NRC INTEGRATED INSPECTION REPORT 05000266/2017003 AND 05000301/2017003

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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:	05000266/2017003; 05000301/2017003
Licensee:	NextEra Energy Point Beach, LLC
Facility:	Point Beach Nuclear Plant, Units 1 and 2
Location:	Two Rivers, WI
Dates:	July 1 through September 30, 2017
Inspectors:	T. Hartman, Senior Resident Inspector K. Barclay, Resident Inspector G. Edwards, Health Physicist D. Kimble, Senior Resident Inspector, Braidwood R. K. Walton, Senior Operations Engineer C. Zoia, Senior Operations Engineer
Approved by:	J. Cameron, Chief Branch 4 Division of Reactor Projects

Enclosure

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SUMMARY

Inspection Report 05000266/2017003, 05000301/2017003; 06/01/2017 – 09/30/2017; Point Beach Nuclear Plant, Units 1 & 2; Post Maintenance Test and Problem Identification and Resolution.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Two Green findings were identified by the inspectors. The findings involved non-cited violations (NCVs) of the U.S. Nuclear Regulatory Commission (NRC) requirements. The significance of inspection findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated April 29, 2015. Cross-cutting aspects are determined using IMC 0310, "Aspects Within the Cross-Cutting Areas," dated December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated November 1, 2016. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG–1649, "Reactor Oversight Process," Revision 6.

Cornerstone: Mitigating Systems

- Green. A finding of very low safety significance and associated NCV of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the failure to have instructions of a type appropriate to the circumstances. Specifically, the instructions for testing a refurbished safety-related power supply did not contain acceptance criteria to ensure that the power supply voltage output did not exceed the maximum voltage requirements established by the vendor of the downstream level transmitter. Immediate corrective actions included evaluating the voltage output of operating power supplies to ensure the voltage at their associated transmitters was within vendor specifications.

  The finding was determined to be more than minor because the finding, if left uncorrected, had the potential to lead to a more significant safety concern. Specifically, power supplies could have been placed back in service producing voltage levels at the downstream safety-related transmitters exceeding their vendor requirements. The inspectors concluded this finding was associated with the Mitigating Systems Cornerstone. The inspectors determined the finding could be evaluated using the Significance Determination Process (SDP) in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," issued on October 7, 2016. Specifically, the inspectors used IMC 0609 Appendix A "SDP for Findings At-Power," issued June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions" to screen the finding. The finding screened as of very low safety significance (Green) because the inspectors answered "No" to the screening questions. This finding has a cross-cutting aspect in the area of human performance, Design Margins, because the licensee did not ensure that design margins were carefully guarded. [H.6] (Section 1R19)

- Green. A finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified by the inspectors for the failure to promptly identify and correct degraded structural supports

for safety-related cables, a condition adverse to quality. Specifically, the licensee failed to repair or replace degraded service water pump cable supports after they identified the degraded supports in 2011. The licensee was in the process of scheduling the cable support repairs at the end of the inspection period. The inspectors determined that the continued non-compliance does not present an immediate safety concern because, given the weight pressing onto the cables, the insulation should remain intact.

The finding was determined to be more than minor because the finding was associated with the Mitigating Systems cornerstone attribute of Reliability and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the failure of the service water motor cable support allowed the structural beam to drop and metal cable clamps to impinge on the insulation of the 480 volt safety-related cables. The inspectors determined the finding could be evaluated in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," issued on October 7, 2016. Specifically, the inspectors used IMC 0609 Appendix A "SDP for Findings At-Power," issued June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions" to screen the finding. The finding screened as of very low safety significance (Green) because the inspectors answered "No" to the screening questions. This finding has a cross-cutting aspect in the area of human performance, Conservative Bias, because the licensee did not use decision making-practices that emphasize prudent choices overt those that are simply allowed. [H.14] (Section 4OA2)

REPORT DETAILS

Summary of Plant Status

Unit 1

The unit operated at or near full power until September 16, 2017, when the unit began coastdown in preparation for the planned refueling outage U1R37. Unit 1 remained in coastdown through the end of the inspection period, finishing the period with the unit at approximately 91 percent power.

Unit 2

The unit operated at or near full power for the inspection period, except for brief power reductions to conduct planned maintenance and surveillance activities.

1. REACTOR SAFETY

Cornerstone: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 Readiness for Impending Adverse Weather Condition—High Wind Conditions

a. Inspection Scope

The inspectors evaluated the stations material condition and the licensee's procedures for coping with the expected high wind conditions. As part of this evaluation, the inspectors observed the licensee as they implemented their abnormal operating procedure (AOP) attachment for potential high wind conditions. The observation included walking down the turbine building, primary auxiliary building, and circulating water pump house and validating that the licensee prepared the site for the high wind conditions. Site preparation included validating or closing various overhead doors and, in some instances, installing braces behind overhead doors for additional support. The inspectors also verified that licensee's required surveillances were current. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one readiness for impending adverse weather condition sample as defined in inspection procedure (IP) 71111.01–05.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- P–35A, electric fire pump with P–35B out-of-service (OOS);
- Unit 1 P–15B, safety injection pump after testing; and
- Unit 1 P–14A, containment spray pump with P–14B OOS.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Final Safety Analysis Report (UFSAR), Technical Specification (TS) requirements, outstanding work orders (WOs), condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program (CAP) with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted three partial system walkdown sample as defined in IP 71111.04–05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection walkdowns, which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Fire Zones 300, 301, and 303, Unit 1 Turbine Building 8 Foot Elevation;
- Fire Zone 319, Unit 1 Turbine Building 26 Foot Elevation;
- Fire Zone 318, Cable Spreading Room;
- Fire Zone 166, 2B32 MCC Room; and
- Fire Zone 680; Station Auxiliary Transformers.

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and implemented adequate compensatory measures for OOS, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the

plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment, which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the Attachment to this report, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP. Documents reviewed are listed in the Attachment to this report.

These activities constituted five quarterly fire protection inspection samples as defined in IP 71111.05–05.

b. Findings

No findings were identified.

.2 Annual Fire Protection Drill Observation (71111.05A)

a. Inspection Scope

On August 14, 2017, the inspectors observed a fire brigade activation for a simulated fire in the 13.8KV switchgear building. Based on this observation, the inspectors evaluated the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies openly discussed them in a self-critical manner at the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were:

- proper wearing of turnout gear and self-contained breathing apparatus;
- proper use and layout of fire hoses;
- employment of appropriate firefighting techniques;
- sufficient firefighting equipment brought to the scene;
- effectiveness of fire brigade leader communications, command, and control;
- search for victims and propagation of the fire into other plant areas;
- utilization of pre-planned strategies;
- adherence to the pre-planned drill scenario; and
- drill objectives.

Documents reviewed are listed in the Attachment to this report.

These activities constituted one annual fire protection inspection sample as defined in IP 71111.05–05.

b. Findings

No findings were identified.

1R06 Flooding (71111.06)

.1 Underground Vaults

a. Inspection Scope

The inspectors selected underground bunkers/manholes subject to flooding that contained cables whose failure could disable risk-significant equipment. The inspectors determined that the cables were not submerged, that splices were intact, and that appropriate cable support structures were in place. In those areas where dewatering devices were used, such as a sump pump, the device was operable and level alarm circuits were set appropriately to ensure that the cables would not be submerged. In those areas without dewatering devices, the inspectors verified that drainage of the area was available, or that the cables were qualified for submergence conditions. The inspectors also reviewed the licensee's corrective action documents with respect to past submerged cable issues identified in the corrective action program to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the following underground bunkers/manholes subject to flooding:

- Z–65A, service water cable vault; and
- Z–65B, service water cable vault.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted one underground vault sample as defined in IP 71111.06–05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review of Licensed Operator Requalification (71111.11Q)

a. Inspection Scope

On August 21, 2017, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification training. The inspectors verified that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and that training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator requalification program simulator sample as defined in IP 71111.11–05 and satisfied the inspection program requirement for the resident inspectors to observe a portion of an in-progress annual requalification operating test during a training cycle in which it was not observed by the NRC during the biennial portion of this IP.

b. Findings

No findings were identified.

.2 Resident Inspector Quarterly Observation During Periods of Heightened Activity or Risk (71111.11Q)

a. Inspection Scope

On July 27, 2017, the inspectors observed licensed operators respond to an instrument failure induced transient. This was an activity that required heightened awareness or was related to increased risk. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of procedures;
- control board (or equipment) manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications (if applicable).

The performance in these areas was compared to pre-established operator action expectations, procedural compliance, and task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator heightened activity/risk sample as defined in IP 71111.11–05.

b. Findings

No findings were identified.

.3 Annual Operating Test Results (71111.11A)

a. Inspection Scope

The inspectors reviewed the overall pass/fail results of the Annual Operating Test, administered by the licensee from August 14 through September 22, 2017, required by 10 CFR 55.59(a). The results were compared to the thresholds established in IMC 0609, Appendix I, "Licensed Operator Requalification SDP," to assess the overall

adequacy of the licensee's Licensed Operator Requalification Training (LORT) program to meet the requirements of 10 CFR 55.59. (02.02)

This inspection constituted one annual licensed operator requalification examination results sample as defined in IP 71111.11–05.

b. Findings

No findings were identified.

.4 Biennial Review (71111.11B)

a. Inspection Scope

The following inspection activities were conducted during the weeks of September 11 and September 18, 2017, to assess: (1) the effectiveness and adequacy of the facility licensee's implementation and maintenance of its systems approach to training (SAT) based LORT program, put into effect to satisfy the requirements of 10 CFR 55.59; (2) conformance with the requirements of 10 CFR 55.46 for use of a plant referenced simulator to conduct operator licensing examinations and for satisfying experience requirements; and (3) conformance with the operator license conditions specified in 10 CFR 55.53. The documents reviewed are listed in the Attachment to this report.

- Licensee Requalification Examinations (10 CFR 55.59(c); SAT element 4 as defined in 10 CFR 55.4): The inspectors reviewed the licensee's program for development and administration of the LORT biennial written examination and annual operating tests to assess the licensee's ability to develop and administer examinations that are acceptable for meeting the requirements of 10 CFR 55.59(a).

  - The inspectors conducted a detailed review of one biennial requalification written examination versions to assess content, level of difficulty, and quality of the written examination materials. (02.03)

  - The inspectors conducted a detailed review of ten job performance measures (JPMs) and four simulator scenarios to assess content, level of difficulty, and quality of the operating test materials. (02.04)

  - The inspectors observed the administration of the annual operating test to assess the licensee's effectiveness in conducting the examination(s), including the conduct of pre-examination briefings, evaluations of individual operator and crew performance, and post-examination analysis. The inspectors evaluated the performance of one crew in parallel with the facility evaluators during two dynamic simulator scenarios, and evaluated various licensed crew members concurrently with facility evaluators during the administration of several JPMs. (02.05)

  - The inspectors assessed the adequacy and effectiveness of the remedial training conducted since the last requalification examinations and the training planned for the current examination cycle to ensure that they addressed weaknesses in licensed operator or crew performance identified

during training and plant operations. The inspectors reviewed remedial training procedures and individual remedial training plans. (02.07)

- Conformance with Examination Security Requirements (10 CFR 55.49): The inspectors conducted an assessment of the licensee's processes related to examination physical security and integrity (e.g., predictability and bias) to verify compliance with 10 CFR 55.49, "Integrity of Examinations and Tests." The inspectors observed the implementation of physical security controls (e.g., access restrictions and simulator input/output controls) and integrity measures (e.g., security agreements, sampling criteria, bank use, and test item repetition) throughout the inspection period. (02.06)

- Conformance with Operator License Conditions (10 CFR 55.53): The inspectors reviewed the facility licensee's program for maintaining active operator licenses and to assess compliance with 10 CFR 55.53(e) and (f). The inspectors reviewed the procedural guidance and the process for tracking on-shift hours for licensed operators, and which control room positions were granted watch-standing credit for maintaining active operator licenses. Additionally, medical records for seven licensed operators were reviewed for compliance with 10 CFR 55.53(l). (02.08)

- Conformance with Simulator Requirements Specified in (10 CFR 55.46): The inspectors assessed the adequacy of the licensee's simulation facility (simulator) for use in operator licensing examinations and for satisfying experience requirements. The inspectors reviewed a sample of simulator performance test records (e.g., transient tests, malfunction tests, scenario based tests, post-event tests, steady state tests, and core performance tests), simulator discrepancies, and the process for ensuring continued assurance of simulator fidelity in accordance with 10 CFR 55.46. The inspectors reviewed and evaluated the discrepancy corrective action process to ensure that simulator fidelity was being maintained. Open simulator discrepancies were reviewed for importance relative to the impact on 10 CFR 55.45 and 55.59 operator actions as well as on nuclear and thermal hydraulic operating characteristics. (02.09)

- Problem-Identification and Resolution (10 CFR 55.59(c); SAT element 5 as defined in 10 CFR 55.4): The inspectors assessed the licensee's ability to identify, evaluate, and resolve problems associated with licensed operator performance (a measure of the effectiveness of its LORT program and their ability to implement appropriate corrective actions to maintain its LORT Program up to date). The inspectors reviewed documents related to licensed operator performance issues (e.g., licensee condition/problem identification reports including documentation of plant events and review of industry operating experience from previous 2 years). The inspectors also sampled the licensee's quality assurance oversight activities, including licensee training department self-assessment reports. (02.10)

This inspection constituted one biennial licensed operator requalification program inspection sample as defined in IP 71111.11–05.

b. Findings

No findings were identified.

.5 1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- maintenance rule periodic evaluation review;
- G–05, gas turbine generator; and
- metering, relaying, and regulating system.

The inspectors reviewed events such as where ineffective equipment maintenance had or could have resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components/functions classified as (a)(2), or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These inspections constituted three quarterly maintenance effectiveness samples as defined in IP 71111.12–05.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

.1 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- July 27, 2017, feedwater flow transmitter FT–466;
- July 31, 2017, 1PT–429, pressurizer pressure red channel OOS with switchyard maintenance in progress;
- August 7, 2017, G–04 emergency diesel generator OOS;
- August 15, 2017, diesel-driven fire pump and 2P–2B charging pump OOS with switchyard maintenance in progress; and
- September 18, 2017, 1P–29 turbine-driven auxiliary feedwater pump OOS with switchyard maintenance in progress.

These activities were selected based on their potential risk significance relative to the Reactor Safety Cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid, and applicable requirements were met. Documents reviewed during this inspection are listed in the Attachment to this report.

These maintenance risk assessments and emergent work control activities constituted five samples as defined in IP 71111.13–05.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functional Assessments (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- foreign material found in Unit 1 containment;
- control room alarm buzzer not always working;
- 2N–31 nuclear instrument counts affected by cable movement;
- auxiliary feedwater discharge check valve leakage; and
- degraded supports in Z–65A/Z–65B vaults.

The inspectors selected these potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and UFSAR to the licensee's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment to this report.

These operability inspections constituted five samples as defined in IP 71111.15–05.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

.1 Plant Modifications

a. Inspection Scope

The inspectors reviewed the following modification:

- EC 289600; 1P–28A–M Temp IB Bearing Housing Lube Oil Bypass Supply Line

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design basis, the UFSAR, and the TS, as applicable, to verify that the modification did not affect the operability or availability of the affected system. The inspectors, as applicable, observed ongoing and completed work activities to ensure that the modifications were installed as directed and consistent with the design control documents; the modifications operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one temporary modification sample as defined in IP 71111.18–05.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

.1 Post-Maintenance Testing

a. Inspection Scope

The inspectors reviewed the following post-maintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- 1LQ–428, Unit 1 pressurizer level power supply after refurbishment;
- 2P–2C, charging pump after maintenance;
- G–04, emergency diesel generator after maintenance;
- G–03, emergency diesel generator after governor replacement; and
- 1SI–856B; residual heat removal suction valve from refueling water storage tank.

These activities were selected based upon the structure, system, or component's ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion); and test documentation was properly evaluated. The inspectors evaluated the activities against TSs, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment to this report.

These inspections constituted five post-maintenance testing samples as defined in IP 71111.19–05.

b. Findings

(1) Inappropriate Instructions For Testing Safety-Related Power Supplies

Introduction: A finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified by the inspectors for the failure to have instructions of a type appropriate to the circumstances. Specifically, the instructions for testing a refurbished safety-related power supply did not contain acceptance criteria to ensure that the power supply voltage output did not exceed the maximum voltage requirements established by the vendor of the downstream level transmitter.

Description: While inspecting the refurbishment and testing of LQ–428, a power supply for a pressurizer level transmitter, the inspectors observed that the work order contained testing requirements to ensure that the power supply produced a minimum voltage, but did not have any acceptance criteria to ensure the power supply output was below a

maximum voltage. A review of the vendor documentation for the pressurizer level transmitter found that it had a maximum voltage requirement of 48 volts. The inspectors reviewed a previously accepted value of power supply output, which was measured in milliamps and converted to voltage, and found that it was approximately 46 volts. The power supply is designed to produce 43 volts plus or minus 2.15 volts, producing an upper limit of 45.15 volts. The inspectors were concerned that without a maximum voltage acceptance criteria, the power supply could be returned to service with a voltage output that exceeded the vendor recommendations for the pressurizer level transmitter. The inspectors discussed their concern with the licensee. The licensee agreed with the inspectors concerns and entered the issue into their CAP.

Additionally, the inspectors found that the acceptance criteria for the power supply post-maintenance testing was taken from the licensee's calibration procedures, which tested the power supply voltage periodically. The inspectors reviewed previous performances of the calibration procedures and found that some of the power supplies were returned to service with voltage levels above the power supply specifications and the transmitter requirements. The inspectors reviewed the vendor documentation for the transmitters associated with those power supplies and found that they had a maximum voltage requirement of 45 volts. The inspectors communicated their concerns to the licensee. The licensee entered the issue into their CAP and completed an immediate operability determination. The licensee concluded that the resistance across additional components within the transmitter and power supply loop circuit would cause enough of a voltage drop to ensure that the transmitters' voltage requirements would not be exceeded. The licensee also assigned a prompt operability determination to formally assess and document the issue and its extent of condition.

Analysis: The inspectors determined that failing to have instructions of a type appropriate to the circumstances was contrary to 10 CFR Part 50, Appendix B, Criterion V and was a performance deficiency.

The finding was determined to be more than minor because the finding, if left uncorrected, had the potential to lead to a more significant safety concern. Specifically, power supplies could have been placed back in service producing voltage levels at the downstream safety-related transmitters that exceeding their vendor requirements. The inspectors concluded this finding was associated with the Mitigating Systems Cornerstone.

The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," issued on October 7, 2016. Specifically, the inspectors used IMC 0609 Appendix A "SDP for Findings At-Power," issued June 19, 2012, Exhibit 2, "Mitigating Systems Screening Questions" to screen the finding. The finding screened as of very low safety significance (Green) because the inspectors answered "No" to the screening questions. Specifically, the finding did not result in a loss of operability for the safety-related transmitters.

This finding has a cross-cutting aspect in the area of human performance, Design Margins (H.6), because the licensee did not ensure that design margins were carefully guarded. Specifically, after refurbishing safety-related power supplies, the licensee's post-maintenance test instructions did not have upper acceptance criteria to ensure that

the voltage output was less than the vendor prescribed maximum voltage for downstream transmitter.

Enforcement: Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that "activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings." Instructions, procedures, or drawings shall include appropriate, quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily completed.

Contrary to this requirement, on August 2, 2017, the licensee failed to ensure that activities affecting quality were prescribed by documented instructions of a type appropriate to the circumstances. Specifically, WO 40472738, did not contain acceptance criteria to ensure that the power supply voltage output did not exceed the power supply design range or the maximum allowed voltage for the downstream transmitter. Because the violation was of very low safety significance and was entered into the licensee's corrective action program as action request (AR) 2224407 and 2228184, this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy. Immediate corrective actions included evaluating the voltage output of operating power supplies to ensure the voltage at their associated transmitters was within vendor specifications. **(NCV 05000266/2017003-01; 05000301/2017003-01; Inappropriate Instructions for Testing Safety-Related Power Supplies)**

1R22 Surveillance Testing (71111.22)

.1 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- TS 4A; turbine trip testing Unit 2 (routine);
- OI–135E; low head safety injection core deluge venting train A inside containment Unit 1 (routine);
- 1TS–ECCS–002 Train B; safeguards system venting Unit 1 (routine); and
- IT 03; low head safety injection pump and valve testing Unit 2 train B (inservice testing).

The inspectors observed in-plant activities and reviewed procedures and associated records to determine the following:

- did preconditioning occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- were acceptance criteria clearly stated, sufficient to demonstrate operational readiness, and consistent with the system design basis;
- was plant equipment calibration correct, accurate, and properly documented;

- were as-left setpoints within required ranges; and was the calibration frequency in accordance with TSs, the UFSAR, plant procedures, and applicable commitments;
- was measuring and test equipment calibration current;
- was the test equipment used within the required range and accuracy and were applicable prerequisites described in the test procedures satisfied;
- did test frequencies meet TS requirements to demonstrate operability and reliability;
- were tests performed in accordance with the test procedures and other applicable procedures;
- were jumpers and lifted leads controlled and restored where used;
- were test data and results accurate, complete, within limits, and valid;
- was test equipment removed following testing;
- where applicable for IST activities, was testing performed in accordance with the applicable version of Section XI of the American Society of Mechanical Engineers Code, and were reference values consistent with the system design basis;
- was the unavailability of the tested equipment appropriately considered in the performance indicator (PI) data;
- where applicable, were test results not meeting acceptance criteria addressed with an adequate operability evaluation, or was the system or component declared inoperable;
- where applicable for safety-related instrument control surveillance tests, was the reference setting data accurately incorporated into the test procedure;
- was equipment returned to a position or status required to support the performance of its safety function following testing;
- were problems identified during the testing appropriately documented and dispositioned in the licensee's CAP;
- were annunciators and other alarms demonstrated to be functional and were setpoints consistent with design requirements; and
- where applicable, were alarm response procedure entry points and actions consistent with the plant design and licensing documents.

Documents reviewed are listed in the Attachment to this report.

These inspections constituted three routine surveillance testing samples, and one in-service test sample, as defined in IP 71111.22, Sections–02 and–05.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of the following planned licensee emergency drill:

- a full scale integrated emergency preparedness (EP) drill conducted on August 8, 2017.

The inspectors observed emergency response operations in the plant's simulator and Technical Support Center to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures, and to identify any weaknesses or deficiencies in classification, notification, or protective action recommendation development activities. The inspectors also attended the licensee drill critique to compare any inspector-observed weaknesses with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the CAP. As part of their inspection activities, the inspectors reviewed the drill package for the scenario and other EP documents.

The inspectors' review of this EP drill scenario and other related activities constituted a single inspection sample as defined in IP 71114.06–06.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstones: Public Radiation Safety and Occupational Radiation Safety

2RS7 Radiological Environmental Monitoring Program (71124.07)

.1 Site Inspection (02.02)

a. Inspection Scope

The inspectors walked down select air sampling stations and dosimeter monitoring stations to determine whether they were located as described in the Offsite Dose Calculation Manual (ODCM) and to determine the equipment material condition.

The inspectors reviewed calibration and maintenance records for select air samplers, dosimeters, and composite water samplers to evaluate whether they demonstrated adequate operability of these components.

The inspectors assessed whether the licensee had initiated sampling of other appropriate media upon loss of a required sampling station.

The inspectors observed the collection and preparation of environmental samples from select environmental media to determine if environmental sampling was representative of the release pathways specified in the ODCM and if sampling techniques were in accordance with procedures.

The inspectors assessed whether the meteorological instruments were operable, calibrated, and maintained in accordance with guidance contained in the Final Safety Analysis Report, U.S. Nuclear Regulatory Commission Regulatory Guide 1.23, "Meteorological Monitoring Programs for Nuclear Power Plants," and licensee

procedures. The inspectors assessed whether the meteorological data readout and recording instruments were operable.

The inspectors evaluated whether missed and/or anomalous environmental samples were identified and reported in the annual environmental monitoring report. The inspectors selected events that involved a missed sample, inoperable sampler, lost dosimeter, or anomalous measurement to determine if the licensee had identified the cause and had implemented corrective actions. The inspectors reviewed the licensee's assessment of any positive sample results and reviewed any associated radioactive effluent release data that was the source of the released material.

The inspectors selected structures, systems, or components that involve or could reasonably involve a credible mechanism for licensed material to reach ground water, and assessed whether the licensee had implemented a sampling and monitoring program sufficient to detect leakage to ground water.

The inspectors evaluated whether records important to decommissioning, as required by 10 CFR 50.75(g), were retained in a retrievable manner.

The inspectors reviewed any significant changes made by the licensee to the ODCM as the result of changes to the land census, long-term meteorological conditions, or modifications to the sampler stations since the last inspection. The inspectors reviewed technical justifications for any changed sampling locations to evaluate whether the licensee performed the reviews required to ensure that the changes did not affect its ability to monitor the impacts of radioactive effluent releases on the environment.

The inspectors assessed whether the appropriate detection sensitivities with respect to the ODCM where used for counting samples. The inspectors reviewed the Quality Control Program for analytical analysis.

The inspectors reviewed the results of the licensee's Interlaboratory Comparison Program to evaluate the adequacy of environmental sample analyses performed by the licensee. The inspectors assessed whether the interlaboratory comparison test included the media/nuclide mix appropriate for the facility. The inspectors reviewed the licensee's determination of any bias to the data and the overall effect on the Radiological Environmental Monitoring Program.

These inspection activities constituted one complete sample as defined in IP 71124.07–05.

b. Findings

No findings were identified.

.2 Groundwater Protection Initiative Implementation (02.03)

a. Inspection Scope

The inspectors reviewed monitoring results of the groundwater protection initiative to evaluate whether the licensee had implemented the program as intended and to assess whether the licensee had identified and addressed anomalous results and missed samples.

The inspectors evaluated the licensee's implementation of the minimization of contamination and survey aspects of the groundwater protection initiative and the Decommissioning Planning Rule requirements in 10 CFR 20.1406 and 10 CFR 20.1501.

The inspectors reviewed leak and spill events and 10 CFR 50.75 (g) records and assessed whether the source of the leak or spill was identified and appropriately mitigated.

The inspectors assessed whether unmonitored leaks and spills where evaluated to determine the type and amount of radioactive material that was discharged. The inspectors assessed whether the licensee completed offsite notifications in accordance with procedure.

The inspectors reviewed evaluations of discharges from onsite contaminated surface water bodies and the potential for ground water leakage from them. The inspectors assessed whether the licensee properly accounted for these discharges as part of the effluent release reports.

The inspectors assessed whether onsite ground water sample results and descriptions of any significant on-site leaks or spills into ground water were documented in the Annual Radiological Environmental Operating Report or the Annual Radiological Effluent Release Report.

The inspectors determined whether significant new effluent discharge points where updated in the ODCM and the assumptions for dose calculations were updated as needed.

These inspection activities constituted one complete sample as defined in IP 71124.07–05.

b. Findings

No findings were identified.

.3 Problem Identification and Resolution (02.04)

a. Inspection Scope

The inspectors assessed whether problems associated with the Radiological Environmental Monitoring Program were being identified by the licensee at an appropriate threshold and were properly addressed for resolution. The inspectors assessed the appropriateness of the corrective actions for a selected sample of problems documented by the licensee that involved the Radiological Environmental Monitoring Program.

These inspection activities constituted one complete sample as defined in IP 71124.07–05.

b. Findings

No findings were identified.

4. OTHER ACTIVITES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Security

4OA1 Performance Indicator Verification (71151)

.1 Mitigating Systems Performance Index—Emergency AC Power System

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI–Emergency AC Power System performance indicator Point Beach Nuclear Plant, Units 1 and 2, for the period from the third quarter 2016 through the second quarter 2017. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, MSPI derivation reports, issue reports, event reports, and NRC Integrated Inspection Reports for the period of July 2016 through June 2017 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI emergency AC power system samples as defined in IP 71151–05.

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index—High Pressure Injection Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI–High Pressure Injection Systems performance indicator Point Beach Nuclear Plant, Units 1 and 2, for the period from the third quarter 2016 through the second quarter 2017. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, MSPI derivation reports, event reports, and NRC Integrated Inspection Reports for the period of July 2016 through June 2017 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted

for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI high pressure injection system samples as defined in IP 71151–05.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index—Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI–Heat Removal System performance indicator Point Beach Nuclear Plant, Units 1 and 2, for the period from the third quarter 2016 through the second quarter 2017. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, MSPI derivation reports, and NRC Integrated Inspection Reports for the period of July 2016 through June 2017 to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two MSPI heat removal system samples as defined in IP 71151–05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Items Entered into the Corrective Action Program

a. Inspection Scope

As discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify they were being entered into the licensee's CAP at an appropriate threshold, adequate attention was being given to timely corrective actions, and adverse trends were identified and addressed. Some minor issues were entered into the licensee's corrective action program as a result of the inspectors' observations; however, they are not discussed in this report.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure, they were considered an integral part of the inspections performed during the quarter.

b. Findings

No findings were identified.

.2 Annual Follow-up of Selected Issues: Worker Not Protected From Hazard

a. Inspection Scope

The inspectors selected the following condition report for in-depth review:

- AR 2213062; Tagging Event: Work Performed Unprotected.

As appropriate, the inspectors verified the following attributes during their review of the licensee's corrective actions for the above condition reports and other related condition reports:

- complete and accurate identification of the problem in a timely manner commensurate with its safety significance and ease of discovery;
- consideration of the extent of condition, generic implications, common cause, and previous occurrences;
- evaluation and disposition of operability/functionality/reportability issues;
- classification and prioritization of the resolution of the problem commensurate with safety significance;
- identification of the root and contributing causes of the problem;
- identification of corrective actions, which were appropriately focused to correct the problem;
- completion of corrective actions in a timely manner commensurate with the safety significance of the issue;
- effectiveness of corrective actions taken to preclude repetition; and
- evaluate applicability for operating experience and communicate applicable lessons learned to appropriate organizations.

The inspectors discussed the corrective actions and associated evaluations with licensee personnel.

This review constituted one in-depth problem identification and resolution inspection sample as defined in IP 71152.

b. Findings

No findings were identified.

.3 Annual Follow-up of Selected Issues: Failed Service Water Cable Supports

a. Inspection Scope

The inspectors selected the following condition reports for in-depth review:

- AR 1641275; Manhole #1 Degraded Cable Supports; and
- AR 1641291; Manhole #2 Degraded Cable Supports.

As appropriate, the inspectors verified the following attributes during their review of the licensee's corrective actions for the above condition reports and other related condition reports:

- complete and accurate identification of the problem in a timely manner commensurate with its safety significance and ease of discovery;
- consideration of the extent of condition, generic implications, common cause, and previous occurrences;
- evaluation and disposition of operability/functionality/reportability issues;
- classification and prioritization of the resolution of the problem commensurate with safety significance;
- identification of the root and contributing causes of the problem; and
- identification of corrective actions, which were appropriately focused to correct the problem;
- completion of corrective actions in a timely manner commensurate with the safety significance of the issue;
- effectiveness of corrective actions taken to preclude repetition;
- evaluate applicability for operating experience and communicate applicable lessons learned to appropriate organizations.

The inspectors discussed the corrective actions and associated evaluations with licensee personnel.

This review constituted one in-depth problem identification and resolution inspection sample as defined in IP 71152.

b. Findings

(1) Service Water Cable Support Failure

Introduction: A finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” was identified by the inspectors for the failure to promptly identify and correct degraded structural supports for safety-related cables, a condition adverse to quality. Specifically, the licensee failed to repair or replace degraded service water pump cable supports after they identified the degraded supports in 2011.

Description: During an inspection of the licensee’s underground cable vaults on August 23, 2017, the inspectors observed that a structural support within the cable vault had failed. The metal edges of cable clamps, which were mounted on the bottom side of the failed support, were found to be pressing into the insulation of safety-related service water pump motor cables located below. The licensee entered the condition into their CAP and performed an operability determination on the service water cables. The operability determination concluded that the service water cables were operable but nonconforming.

The inspectors’ review of the licensee’s CAP found that, in April of 2011, the licensee documented that the cable supports were rusting and had almost degraded to the point

of failure. The inspectors found that the licensee performed condition evaluations in 2011, which also assigned corrective actions and work orders to replace the rusting structural supports. The inspectors reviewed the cable support work orders and found that they had been delayed in their original planning process and were subsequently rescheduled multiple times through the time period of concern.

Analysis: The inspectors determined that failing to repair the degraded service water cable supports, a condition adverse to quality, was contrary to 10 CFR Part 50, Appendix B, Criterion XVI and was a performance deficiency.

The finding was determined to be more than minor because the finding was associated with the Mitigating Systems cornerstone attribute of Reliability and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. (i.e., core damage). Specifically, the failure of the service water motor cable support, allowed the structural beam to drop and metal cable clamps to impinge on the insulation of the 480 volt safety-related cables.

The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, “Significance Determination Process,” Attachment 0609.04, “Initial Characterization of Findings,” issued on October 7, 2016. Specifically, the inspectors used IMC 0609 Appendix A “SDP for Findings At-Power,” issued June 19, 2012, Exhibit 2, “Mitigating Systems Screening Questions” to screen the finding. The finding screened as of very low safety significance (Green) because the inspectors answered "No" to the screening questions. Specifically, the finding did not result in a loss of operability for the service water pumps.

This finding has a cross-cutting aspect in the area of human performance, Conservative Bias (H.14), because the licensee did not use decision making-practices that emphasize prudent choices over those that are simply allowed. Specifically, once identified, the licensee eventually planned the repairs on the cable supports, but then rescheduled the repairs multiple times over the six-year period, and did not complete the repairs before the cable supports failed.

Enforcement: Title 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” states, in part, that measures shall be established to assure that conditions adverse to quality (CAQs), such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances, are promptly identified and corrected.

Contrary to the above, since April 14, 2011, the licensee failed to assure that CAQs, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances, were promptly identified and corrected. Specifically, on April 14, 2011, the licensee identified that the cable supports for the safety-related service water pump motor cables were rusting, degraded, and near failure, which is a CAQ. They documented the issue in their CAP as AR 01641275. The licensee closed AR 01641275 on September 13, 2011, after creating work orders 40080735 and 40080737 to correct the condition; however, the work orders are not completed and the supports are not repaired.

The licensee was in the process of scheduling the cable support repairs at the end of the inspection period. The inspectors determined that the continued non-compliance does

not present an immediate safety concern because, given the weight pressing onto the cables, the insulation should remain intact.

Because this violation was of very-low safety significance and was entered into the licensee's CAP as AR 2229666, this violation is being treated as a NCV, consistent with Section 2.3.2.a of the NRC Enforcement Policy. **(NCV 05000266/2017003–02; 05000301/2017003–02; Service Water Cable Support Failure)**

4OA5 Other Activities

.1 Closure of Unresolved Item 05000266/2011005–03; 05000301/2011005–03, Condition Reports and URIs Potentially Affecting Safety System Functional Failure Performance Indicator

a. Inspection Scope

The NRC documented a unresolved item (URI) during the fourth quarter of 2011 (ADAMS Accession Number ML12030A225) related to whether or not the licensee should have reported some equipment issues as safety system functional failures in the performance indicators reported to the NRC. Specifically, when it was identified that the emergency diesel generator exhaust stacks were not adequately missile protected, the licensee reported the condition in accordance with 10 CFR 50.73, but did not annotate the condition as a safety system functional failure. The inspectors were concerned that the condition could adversely impact the licensee's ability to perform its mitigation strategies. In addition, there were open questions related to the seismic qualifications of the condensate storage tanks and the operability of the residual heat removal pumps from internal flooding which also had the ability to affect the reported performance indicator. The inspectors identified this issue as a URI pending a review of the completed assessments and submittals of the required information (10 CFR 50.73 reports and/or performance indicator data.).

The Office of Nuclear Reactor Regulation reviewed the seismic concern and the internal flooding concern and inspectors in the Region III Division of Reactor Safety reviewed the concerns surrounding the emergency diesel generators. Neither review identified any deficiencies with the information submitted to the NRC. Based on the above assessment, the inspectors determined that no performance deficiencies or violations of regulatory requirements of safety significance existed. The inspectors had no further concerns in this area. Documents reviewed are listed in the Attachment to this report. This URI is closed.

b. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On October 10 and October 25, 2017, the inspectors presented the inspection results to Mr. R. Coffey, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

.2 Interim Exit Meetings

Interim exits were conducted for:

- results of the Radiation Safety Program review with Mr. R. Coffey, Site Vice President, and members of his staff, on July 20, 2017; and
- results of the Operator Licensing Program review with Mr. R. Craven, Plant General Manager, and members of his staff, on September 22, 2017.

The inspectors confirmed that none of the potential report input discussed was considered proprietary. Proprietary material received during the inspection was returned to the licensee.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

R. Coffey, Site Vice President
R. Craven, Plant General Manager
M. Holzmann, Operations Assistant Manager
D. Peterson, Training Manager
J. Baugniet, Training Supervisor
R. Amundsen, Regulatory Exam Coordinator
E. Schultz, Licensing Manager
K. Locke, Licensing Analyst
M. Schanke, Chemistry Supervisor
T. Schneider, Senior Engineer
J. Wilson, Operations Director
C. Neuser, Systems Engineering Manager
T. Lesniak, Site Maintenance Director

U.S. Nuclear Regulatory Commission

J. Cameron, Chief, Reactor Projects Branch 4

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000266/2017003–01 05000301/2017003–01	NCV	Inappropriate Instructions for Testing Safety-Related Power Supplies
05000266/2017003–02 05000301/2017003–02	NCV	Service Water Cable Support Failure

Closed

05000266/2011005–03 05000301/2011003–03	URI	Condition Reports and URIs Potentially Affecting Safety System Functional Failure Performance Indicator
05000266/2017003–01 05000301/2017003–01	NCV	Inappropriate Instructions for Testing Safety-Related Power Supplies
05000266/2017003–02 05000301/2017003–02	NCV	Service Water Cable Support Failure

Discussed

None.

LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

1R01 Adverse Weather Protection

- AOP-13C; Severe Weather Condition; Revision 43
- AR 2206985; Level 1 Assessment Summer Readiness Plant Walkdown
- AR 2211733; Level 2 Assessment – Seasonal Readiness
- AR Report Search; Flood; January 1 – August 15, 2017
- AR Report Search; Weather; January 1, 2016 – August 14, 2017
- Level 1 Core Business Assessment Report Guideline; PBN Summer Readiness Plant Walkdown; May 24, 2017
- Level 2 Independent Assessment Plan & Report; Station Winter Readiness; October 24 - October 27, 2017
- Level 2 Independent Assessment Plan and Report; Seasonal Readiness; May 22 - May 26, 2017
- NOAA-NWS-Alerts; Severe Thunderstorm Watch; August 10, 2017
- OM 3.30; Operations Snow Emergency Staffing; Revision 4
- WM-01.29; PMs Within 7 Days of End of Grace Interval Report; August 10, 2017

1R04 Equipment Alignment

- AR 2061247; Embedded Conduit Found Partially Filled with Water
- AR 2200643; PC 43 Part 2 Found CP Fuses in Incorrect Position
- AR 2200868; Latent Valve Mispo Discovered During Equipment Operation
- AR 2203253; HU Event, E-Stop Bumped on G-05
- AR 2203677; Cable Spreading Room Backup Switch Position
- AR 2211127; Danger Tagged Valve (1SC-956A) Found Out of Position
- AR 2216906; Excessive Time to Start P-35B, Diesel Driven Fire Pump
- AR Word & Keyword Search; Mispo – Mispositioning, Mispos1 – Misposition Level 1, Mispos2 – Misposition Level 2, Mospos3 – Misposition Level 3, Mispos4 – Misposition Level 4, Mispos5 – Misposition Level 5; April 1 – July 24, 2017
- CL 7A; Safety Injection System Checklist Mode 1, 2, 3 Unit 1; Revision 37
- Drawing 110E017, Sheet 1; Safety Injection System; Revision 59
- Drawing 110E017, Sheet 2; Safety Injection System; Revision 66
- Drawing 110E017, Sheet 3; Safety Injection System; Revision 48
- Drawing 499B466, Sheet 367; Elementary Wiring Diagram – Electric Fire Pump P-35A; Revision 12
- Drawing 499B466, Sheet 371A; Elementary Wiring Diagram – Power to P-35A, Electric Fire Pump; Revision 1
- IT 01 Train B; High Head Safety Injection Pumps and Valves Train B Unit 1; Revision 8
- OP-AA-100-1002; Plant Status Control Management; Revision 13

1R05 Fire Protection

- AOP-40; Response to Fire; Revision 2
- AR 2066114; NFPA 805 Unverified Assumption

- AR 2117918; Identify Appendix R and NFPA 805 Fire Rounds; March 16, 2016
- AR 2157676; OM 3.27 Required Comp Measure for Halon OOS; September 23, 2016
- AR 2197890; Flame Retardant Wood Left in Cable Tray Post Scaffold Remove
- AR 2197906; Door 19 in Need of Repair
- AR 21998301; NFPA-805 NSCA Plant Alignment Concern
- AR 2200643; PC 43 Part 2 Found CP Fuses in Incorrect Position
- AR 2213340; OM 3.27 Action Tracking
- AR 2224951; Impact On Plant Safety for Condition Identified in AR 2198301
- AR 2228350; Identified Extent of Condition Issue
- CL 5A; Chemical and Volume Control System Unit 1; Revision 31
- Clearance Coversheet and Tag List; 0 FP FP-3703 FINP;
- Clearance Coversheet; 0 FP FP-3707 FINP; August 17, 2017
- Clearance Tag List; 0 FP FP-3707 FINP; August 17, 2017
- Condition Report Search; FP-3703; August 17, 2008 – August 17, 2017
- Control Room Logs; September 1, 2107
- Crew D 3Q 2017 Drill Scenario Handout
- Drawing 541F091; P&ID Reactor Coolant System; Revision 54
- Drawing 684J741, Sheet 2; PI&D Chemical & Volume Control; Revision 78
- Drawing 684J741, Sheet 3; PI&D Chemical & Volume Control; Revision 17
- Drawing M-208, Sheet 1; Fire Water; Revision 48
- Drawing M-208, Sheet 9; Fire Protection 1.2-X04 Transformers/Gas Turb Bldg; Revision 3
- Drawing PBC-218; Fire Protection For Turbine Building, Auxiliary Building & Containment Elev. 8’-0”; Revision 35
- Fire Round Performance Sheet – PAB; Every Four Hours; September 1, 2017
- Fire Round Performance Sheet – PAB; Hourly; September 1, 2017
- FPTE 2016-003; NFPA 805 Nuclear Safety Capability Assessment; Revision 0
- FPTE 2016-024; Point Beach Nuclear Plant Detailed Fire Modeling Report – Fire Compartment 318 Cable Spreading Room, EL 26’-0”; Revision 0
- LI-AA-102-1001; Regulatory Reporting; Revision 18
- NFPA 805 Compensatory Measures; AR 2117918-41; Mod-26-2 (Appendix B)
- NP 1.9.9; Transient Combustible Control; Revision 32
- NP 4.2.32; Respiratory Protection Program; Revision 17
- OM 3.27; Control of Fire Protection and NFPA 805 Equipment; Revision 64
- OP 5E; Establishing and Securing Excess Letdown or Head Vent Letdown; Revision 15
- OP 5E; Establishing and Securing Excess Letdown or Head Vent Letdown; Revision 15
- PBF-2058A; Fire Round Performance Sheet – Turbine Hall and Miscellaneous Areas; Revision 16
- PBF-2058B; Fire Round Performance Sheet – PAB; Revision 14; Completed March 24, 2017
- PBF-2058B; Fire Round Performance Sheet – PAB; Revision 14; Completed April 14, 2017
- PBF-2058B; Fire Round Performance Sheet – PAB; Revision 14; Completed February 15, 2017
- PBF-2058B; Fire Round Performance Sheet – PAB; Revision 14; Completed April 3, 2017
- PC 73 Part 2; Monthly Surveillance of Fire Hose Stations; Revision 25
- PC 74; Conducting and Evaluating Fire Drills; Revision 18
- PC 75 Part 1; Monthly and Turnaround Maintenance for the Scott 4.5 Self-Contained Breathing Apparatus; Revision 28
- PC 75 Part 2; Monthly Fire Brigade Equipment Inventory; Revision 17
- PC-74; Conducting and Evaluating Fire Drills; Revision 18
- PFP Index; Revision 1
- PFP-0-CB; Pre-Fire Plan Control Building Elev 8 FT, 26 FT, 44 FT, and 66 FT; Revision 0
- PFP-0-PAB-8; Pre-Fire Plan Protected Area South; Revision 0

- PFP-0-PAN; Pre-Fire Plan Protected Area North (Inside Fence); Revision 0
- PFP-0-PAS; Pre-Fire Plan Primary Auxiliary Building Elevations 8' and Below; Revision 0
- PFP-1-TB 26; Pre-Fire Plan Unit 1 Turbine Hall Building Elevation 26 Foot; Revision 0
- PFP-1-TB 8; Pre-Fire Plan Unit 1 Turbine Hall Building Elevation 8 Foot; Revision 0
- PFP-SOG-001;Pre-Fire Plan Standard Operating Guidelines; Revision 0
- PI-AA-104-1000; Condition Reporting; Revision 14
- Report P2641-004-001; CV-285 and CV-1299 Sensitivity Analysis; March 2016
- Station Log Search; FP-3703; August 16 – August 17, 2017
- Station Logs; February 14, 2017
- Transient Combustible Control Permit 2017-7; Breaker and Ground Cart Storage; March 1, 2017

1R06 Flooding

- AR 1641291; Manhole #2 Degraded Cable Supports
- AR 2205707; Degraded Unistruts in Z-065A Raceway
- AR 2209391; Z-065A Cable Supports Degradation Increasing
- AR 2220709; Potential Impact to Cables in Manhole Z-65; Support Degrad
- Control Room Log; August 3 – August 23, 2017
- Drawing E-100, Sheet 1; Electrical Plot Plan Details; Revision 40
- Drawing E-100, Sheet 2; Electrical Plot Plan; Revision 16

1R11 Licensed Operator Requalification Program

- 2 Simulator Scenarios (Week 5)
- 2 Simulator Scenarios (Week 6)
- 2016 Licensed Operator Requalification Written Exam Master Test Plan (Overlap Document)
- 2016 Licensed Operator Requalification Written Exam; RO & SRO; Week 2
- 2017 – 2018 Licensed Operator Continuing Training Plan
- 2017 Licensed Operator Requalification Operating Test
- 2017 Licensed Operator Requalification SEG Schedule (Scenario Overlap Document); August 9, 2017
- 5 Job Performance Measures (Week 5)
- 5 Job Performance Measures (Week 6)
- AR 2224540; Simulator Exam Procedure Left Marked Up
- AOP-24; Response to Instrument Malfunction; Revision 9
- AOP-2B; Feedwater System Malfunction; Revision 19
- Apparent Cause Evaluation Report for CR Number 02122346; Unplanned TSAC 3.6.6.C on Unit 1; May 3, 2016
- AR 2217284; 1FT-466, 1HX-1A SG Feedwater Flow Transmitter, Failed Low
- Condition Evaluation Report for CR Number 02200437; Operations Condition Report Threshold/Timeliness; April 21, 2017
- Crew Simulator Evaluation Forms; October 31, 2016 – November 1, 2016
- DTG 94.0; Attachment 8; Simulator Steady State Performance Test 100% Power; Revision 1
- DTG 94.0; Attachment 8; Simulator Steady State Performance Test 75% Power; Revision 1
- DTG 94.2; Engineering Change Status Review for Simulator Impacts; Revision 1
- DTG 94.3; Simulator Work Requests; Revision 2
- DTG 94.4; Simulator Job Aids – Miscellaneous; Revision 1
- NRC IP 71111.11; Pre-Inspection Assessment; July 12, 2017
- Nuclear Accident Reporting System Form (NARS) - Drill; August 21, 2017
- OM 4.3.8; Control of Time Critical and Time Sensitive Operator Actions; Revision 14

- OP 1B; REACTOR STARTUP; Revision 71
- Open Simulator Work Request List; September 18, 2017
- PBN SIMGL C1.4; CORE LOAD CHANGES; Revision 9
- PBN SIMGL DTG 94.0; Simulator Health Management; Revision 2
- Point Beach Nuclear Assurance Report PBN 17-007; Subject: Training; August 11, 2017
- Point Beach Permanent Simulator vs. Plant Discrepancies List; September 22, 2016
- Root Cause Evaluation for CR Number 02086949; 2X-01 Generator Lockout; October 29, 2015
- Simulator Exercise Guide; PBN LOC 000 021E, NRC Annual Simulator Exam; Revision 4
- Simulator Performance Test Procedure T-9 (SCT 6.5.1); Manual Reactor Trip; November 8, 2014
- Simulator Performance Test Procedure T-9 (SCT 6.5.4); Simultaneous Trip of Both Reactor Coolant Pumps; December 20, 2014
- Simulator Performance Test Procedure T-9 (SCT 6.5.9); Maximum MSLB Inside Containment; November 8, 2014
- TR-AA-104; NextEra Energy Fleet Licensed Operator Continuing Training Program; Revision 3
- TR-AA-221-1000; Simulator Change Control; Revision 3
- TR-AA-221-1000-F01; Simulator Training Needs Assessment; Revision 0
- TR-AA-221-1000-F02; Simulator Review Committee (SRC) Meeting; Revision 1
- TR-AA-230-1008; Simulator Scenario Based Testing and Validation; Revision 1
- Various Action Requests (ARs) Related to Operator Performance from October 29, 2015 – August 28, 2017
- Various Biennial Licensed Operator Remediation Packages; October – November 2016
- Various Completed Simulator Work Requests (SWRs) from May 11, 2016 – May 18, 2017
- Various Individual and Crew Simulator Grading Packages; Week 6; September 22, 2017
- Various License Reactivation Packages; January – December 2016
- Various Quarterly License Watch Standing Records; 2nd Quarter of 2017 – 3rd Quarter of 2017
- Various Scenario Based Tests (SBTs) Related to Licensed Operator Continuing Training Annual Operating Exam Scenarios; September 2016 – September 2017
- Various Simulator Operability Tests; Steady State and Transient Tests; November 2014 – September 2017
- Various Simulator Review Committee Meeting Minutes from 1st Quarter of 2015 – 3rd Quarter of 2017

1R12 Maintenance Effectiveness

- AR 02219852; Request MR Evaluation (Assignment) for Previous CR 02215087
- AR 2091842; 1-SOP-19KV-001 – Transfo(CAPR2086949- Due ¾- Stepcapture)
- AR 2091844; 2-SOP-19KV-001 – Transfo(CAPR2086949- Due ¾- Stepcapture)
- AR 2099606; Track Completion of Fleet MRule (A)(3) Assessments
- AR 2122199; 4-1-16 Unit 1 'A' RCP Starting Event Timeline
- AR 2124491; (S)OP-AA-101-1000 – Clearance and Tagging CA02086949
- AR 2127007; Contractor Use of Lifted Landed Forms
- AR 2165556; Update Multiple SA CRS Due to MRule Perf Crit Revision
- AR 2201941; CA to Evaluate MR (A)(1)/(A)(2) Status for 13.8KV System
- AR 2202655; Unit 2 NI Maint Rule Chiterion Slightly Exceeded in Q1 2017
- AR 2203253; HU Event, E-Stop Bumped on G-05
- AR 2211310; Unexpected Response Obtained by FP-3707 EOL Resistor (PWE)
- AR Report Search; All; January 29, – July 29, 2017
- AR Report Search; Maintenance Rule; March 10, 2017 – August 10, 2017

- AR Report Search; MRR – Metering, Relaying and Regulat; August 22, 2015 – August 22, 2017
- Control Room Logs; January 8 – July 18, 2017
- Control Room Logs; June 20 – June 27, 2017
- Documentation of Maintenance Rule Performance Criteria; System: MRR
- EC 0000283450; Remove SPS-001 (94-T1, T2, T3) Due to ATC Mod in the Switchyard; Revision 1
- Equipment Apparent Cause Evaluation (EACE) Report; AR 2143792; Atomizing Air Compressor Check Valve (GT-107) Leaking By
- Equipment Apparent Cause Evaluation (EACE) Report; H52-21 Found Shut During Board Walkdown / H52-21 Closed Without Operator Action
- ER-AA-100-2002; Maintenance Rule (a)(1) Status Evaluation; Revision 1
- ER-AA-100-2002; Maintenance Rule Program Administration; Revision 5
- ER-AA-100-2002-10000; Maintenance Rule Activity Guidance; Revision 00
- ER-AA-100-2002-F02; Maintenance Rule (a)(1) Status Evaluation; Revision 1
- ER-AA-100-2002-F03; Maintenance Rule (a) (1) Action Plan; Revision 0
- ER-AA-100-2002-F-1, Maintenance Rule Functional Failure Evaluation; Revision 3
- EVAL-PB-GT-803; Gas Turbine; Evaluation for Three Failures in the Last Twenty Demands
- EVAL-PB-MRR-00822; System: MRR – Metering, Relaying and Regulat
- EVAL-PB-MRR-00822; System: MRR – Metering, Relaying and Regulating
- EVT-DG-2017-28143; Unexpected Response Obtained by EOL Resistor
- FSAR Appendix A.1; Station Blackout; UFSAR 2013
- FSAR Section 8.9; Gas Turbine System (GT); UFSAR 2013
- Gas Turbine Generator Unavailability Table
- Level 1 Assessment – PBN Maintenance Rule Program; AR 02099606-01; March 10 – 14, 2017
- Maintenance Rule (a)(1) Action Plan; System: MRR
- Maintenance Rule (a)(1) Status Evaluation; (A)(1) Status Evaluation Necessary for MRR System
- Maintenance Rule (a)(1) Status Evaluation; System: MRR
- Maintenance Rule Functional Failure Evaluation; 2X01 Lockout Generated
- Maintenance Rule Functional Failure Evaluation; April 1, 2016 Unit 1 “A” RCP Starting Event Timeline
- Maintenance Rule Functional Failure Evaluation; H52-21 Closed Without Operator Action
- Maintenance Rule Functional Failure Evaluation; H52-21 Found Shut During Board Walkdown
- NP 7.7.7; Maintenance Rule Periodic Evaluation; Revision 6
- OP-AA-101-1000; Clearance and Tagging; Revision 21
- PBN-C-GT-SYS01; Gas Turbine
- PBN-C-MRR-(PB0-Common Train Bus X-03); System: MRR – Metering, Relaying and Regulating
- PBN-C-MRR-(PB0-Common Train Bus X-03); System: MRR – Metering, Relaying and Regulating

1R13 Maintenance Risk Assessments and Emergent Work Control

- 1RMP 9056-3A; Calibration and Testing of 1A-01 Underfrequency and Undervoltage Protective Relays; Revision 2
- 2ICP 06.068; Component Cooling Water Flow Calibration; Revision 8
- AR 2186157; Phoenix Alignment Error
- AR 2197025; Actual Plant Alignment Not in Phoenix Risk Monitor
- AR 2217284; 1FT-466,1HX-1A SG Feedwater Flow Transmitter, Failed Low

- AR 2219923; NRC Identified Issue With Severe Weather in Phoenix Tracking
- AR 2223847; Phoenix Risk Monitor Not Updated for D-08 Battery Charger
- AR 2224019; Phoenix Alignment
- AR 2225370; Potential Adverse Trend: Near Miss Tech Spec Violation
- AR 2226402; Peak Demand Factor Not Placed Into Phoenix Risk Monitor
- AR Report Search; Phoenix; April 26 – September 26, 2017
- AR Report Search; Phoenix; January 1, 2017 – August 16, 2017
- AR Report Search; Risk Monitor; January 1, 2017 – August 16, 2017
- Control Room Log; August 6 – August 7, 2017
- Control Room Log; September 18 – September 19, 2017
- Control Room Logs; July 31 – August 1, 2017
- Drawing 110E018, Sheet 3;Auxiliary Coolant System; Revision 43
- NP 10.3.7; On-Line Safety Assessment; Revision 38
- PBN Unit 1 (V.08) Current Risk Summary Report; July 30, 2017
- PBN Unit 1 (V.08) Current Risk Summary Report; August 7, 2017
- PBN Unit 1 (V.08) Current Risk Summary Report; August 8, 2017
- PBN Unit 1 (V.08) Current Risk Summary Report; August 9, 2017
- PBN Unit 1 (V.08) Current Risk Summary Report; August 10, 2017
- PBN Unit 1 (V.08) Current Risk Summary Report; August 11, 2017
- PBN Unit 1 (V.08) Current Risk Summary Report; August 14, 2017
- PBN Unit 1 (V.08) Current Risk Summary Report; September 18, 2017
- PBN Unit 1 (V.08) Current Risk Summary Report; September 25, 2017
- PBN Unit 1 (V.08) Plant Configuration Report; August 10, 2017
- PBN Unit 1 (V.08) Plant Configuration Report; July 31, 2017
- PBN Unit 2 (V.08) Current Risk Summary Report; July 30, 2017
- PBN Unit 2 (V.08) Current Risk Summary Report; August 7, 2017
- PBN Unit 2 (V.08) Current Risk Summary Report; August 8, 2017
- PBN Unit 2 (V.08) Current Risk Summary Report; August 9, 2017
- PBN Unit 2 (V.08) Current Risk Summary Report; August 10, 2017
- PBN Unit 2 (V.08) Current Risk Summary Report; August 11, 2017
- PBN Unit 2 (v.08) Current Risk Summary Report; August 14, 2017
- PBN Unit 2 (V.08) Current Risk Summary Report; September 18, 2017
- PBN Unit 2 (V.08) Current Risk Summary Report; September 25, 2017
- PBN Unit 2 (v.08) Historical Risk Data Report; August 15 – August 16, 2017
- PBN Unit 2 (V.08) Plant Configuration Report; August 10, 2017
- WO 40551997; 1FT-466,1HX-1A SG Feedwater Flow Transmitter, Failed Low
- WR 94163707; 1FT-466,1HX-1A SG Feedwater Flow Transmitter, Failed Low

1R15 Operability Determinations and Functional Assessments

- AR 1627998; 2N-31 SRNI Counts Fluctuating by 50 CPS
- AR 1641291; Manhole #2 Degraded Cable Supports
- AR 1948731; 2N-31 Indication Did Not Come UP 2R33 Shutdown
- AR 2188966; Gate Hasp Broken in Flood Zone
- AR 2194079; 2N-31 Counts Affected by Cable Movement on Back of Drawer
- AR 2194431; Written to Obtain WR, 2N-31 Count Affected by Cable Movement
- AR 2205707; Degraded Unistruts in Z-065A Raceway
- AR 2211970; FME Found in U1 Containment
- AR 2213668; Trend – NRC Identified PI&R Related Issues
- AR 2217421; TDAFP Discharge Check Valve Leakage
- AR 2220671; C-01 Buzzer Not Always Buzzing

- AR 2221104; NRC Identified Rubber Seal in Prespray Out of Track
- AR 2221775; Potential Failure Mechanism Z-65 Manholes
- Drawing M-217, Sheet 1; Auxiliary Feedwater System; Revision 104
- Form PBF-2034; Control Room Log – U1; Revision 94
- NP 7.2.30; Quality-Basis Values and Quality Group Codes; Revision 2
- Prompt Operability Determination (POD) Form; Potential Failure Mechanism Z-65 Manholes

1R18 Plant Modifications

- AR 2219540; 1P-28A Outboard Motor Bearing Temperature Rise
- AR 2219709; 1P-28A-M Bearing Temp Indication Wired Incorrectly
- AR 2219717; 1P-28A-M (Motor) Inboard Bearing Low Oil Flow
- EC 289600; 1P-28A-M Temp IB Bearing Housing Lube Oil Bypass Supply Line
- EN-AA-205-1100; Design Change Process; Revision 21
- EN-AA-205-1100-F10; Design Attribute Review Checklist; Revision 0
- EN-AA-205-1102; Temporary Configuration Changes; Revision 9
- WO 40238480; 1P-28A-M /Gaskets in Oil Supply/Return Piping Degraded
- WO 40554028; 1P-28A-M (Motor) Inboard Bearing Low Oil Flow

1R19 Post-Maintenance Testing

- 0-PT-EDG-033; EDG G-03 Governor Testing; Revision 1
- 0-SOP-G04-001; Maintenance Operation for EDG G-04; Revision 13
- 0-SOP-IC-001; Blue; Routine Maintenance Procedure Removal of Safeguards or Protection Sensor From Service – Blue Channels; August 2, 2017
- 1ICP 04.001E; Reactor Protection and Safeguards Analog Racks Steam Pressure Refueling Calibration; Revision 12
- 1ICP 04.001F; Reactor Protection and Safeguards Analog Racks Steam Flow Instruments Outage Calibration; Revision 8
- 1ICP 04.001H; Reactor Protection and Safeguards Analog Racks Pressurizer Pressure Outage Calibration; Revision 8
- 1ICP 04.001M; Reactor Protection and Safeguards Analog Racks Miscellaneous Test Point Resistance and Power Supply Checks; Revision 1
- AR 2196059; E-02-DY U2 PSS Inverter Power Supply Failed Again
- AR 2200522; Inadequate PMT for MDAFW Discharge AOVs (PWE)
- AR 2217423; P-12B Flow in the Alert Range
- AR 2218020; AR/WR for Increased Frequency Testing P-12B
- AR 2224407; NRC Identified Transmitter Voltage Limit Measurement PMT
- AR 2228184; NRC Identified Power Supply Voltage Greater than XMTR Max
- AR Report Search; PMT; April 1 – August 31, 2017
- AR Report Search; Post Maintenance Test; April 1 August 31, 2017
- AR2216906; Excessive Time to Start P-35B, Diesel Driven Fire Pump
- Control Room Log; August 12, 2017
- Daily Production Meeting Schedule; August 7, 2017
- Drawing BD-9, Sheet 1; RPS Steam Generator Level – Loop B; Revision 5
- Drawing CD-1 Job 10668, Sheet 1; RPS Rack Interconnect Wiring and Notes; Revision 2
- Drawing CD-6 Job 10665, Sheet 2; RPS Rack 2B1 Bottom Interconnect Wiring; Revision 9
- Foxboro Power Supply Vendor Manual; November 1969
- G-04 Maintenance Window Work Order List
- ICP Index; Revision 457
- Instruction 18-635; November 1969

- Instruction IM-AA-10006; Fleet Password Manager Pro Instructions; Revision 1
- NDE-753; Visual Examination (VT-2) Leakage Detection of Nuclear Power Plant Components; Revision 18
- Product Data Sheet; 00813-0100-4360; Rosemount 1151; March 2010
- Product Data Sheet; 00813-0100-4514; Rosemount 1154; January 2008
- Product Data Sheet; 00813-0100-4631; Rosemount 1154 Series H; August 2017
- Product Data Sheet; 00813-0100-4854; Revision AA
- Product Data Sheet; 00813-0100-4854; Rosemount 3154N; July 2013
- Product Data Sheet; Rosemount 3154N; July 2013
- Reference Manual; 00809-0100-4631; Rosemount 1154 Series H; April 2017
- Reference Use Work Order; 40450544; G-03 Emergency Diesel Generator; Revision 0
- Report of Calibration; Fluke 289 289 True RMS Multimeter; February 23, 2017
- Report of Calibration; Fluke 289 289 True RMS Multimeter; June 1, 2017
- RMP 9003-9; Charging Pump Suction and Discharge Valve Overhaul; Revision 13
- RMP 9043-47A; Emergency Diesel Generator G-04 Post-Maintenance Run and Testing; Revision 9
- RPS Instrumentation; B 3.3.1
- TIMD03A-Equipment/Component Prompt; RP; IPWSUP; October 2, 2017
- TS 83; Emergency Diesel Generator G-03 Monthly; Revision 38
- WO 40139825; 1ICP 4.1H – Pressurizer Pressure Instruments Calibration
- WO 40234926; 1ICP 4.1H – Pressurizer Pressure Instruments Calibration
- WO 40321153; LS-03354B / Replace G-04 Lo Low Level Switch
- WO 40356883; 1PQ-948 Refurbish Power Supply
- WO 40356920; 1ICP 4.1F – Steam Flow Instrument Calibration
- WO 40356921; 1ICP 4.1G – Feedwater Flow Instrument Calibration
- WO 40364147; Group B Mechanical Maintenance Items Inspection
- WO 40408838; G-04, 2 Year Electrical Maintenance Items
- WO 40430609; 2PQ-429 Refurbish Power Supply
- WO 40450544; G-03, Replace 2301A Governor
- WO 40453320; 2P-002C-Z Replace Signal Conditioner Module
- WO 40472738; 1LQ-428 Refurbish Power Supply
- WO 40472740; 1PQ-429 Refurbish Power Supply
- WO 40472742; 1PQ-430 Refurbish Power Supply
- WO 40483884; 2P-002C Grease and Inspect Coupling
- WO 40492093; T-13 RWST Outlet to P-10B RHR Pump Suction Header Oper
- WO 40507547; IT-03, Train B, 1P-10B, Low Head SI Pumps/Vlvs
- WO 40514515; CV / Password / Access Code Change
- WO 40514839; 2P-002C Sample and Change Oil
- WO 40514840; 2P-002C-M, Lubrication, and Control Cabinet Maintenance
- WO 40520756; 2ICP 4.1M – Reactor Protection and Safeguards Analog Racks
- WO 40553327; 2P-002C-Z Performance Replacement of Blower Fan and Shaft Brush

1R22 Surveillance Testing

- 1-TS-ECCS-002 Train A; Safeguards System Venting (Monthly) Unit 1; Revision 9; Completed on July 31, 2017; WO 40493684
- 1-TS-ECCS-002 Train B; Safeguards System Venting (Monthly) Unit 1; Revision 9; Completed on July 31, 2017; WO 40493683
- AR 1400252; SI Accumulator Leakage, Non-Performance of GAMP Requirements
- AR 1607872; GAMP, SI-V14 UT Monitoring Not Performed
- AR 2206049; 2017 DBAI SA Station Battery Expected Service Life

- AR 2209180; Unexpected Alarm Came in During I&C Testing
- AR 2210808; Procedure Started On Wrong Revision 21 vs. 22 By Work Group
- AR 2213468; Incorrect Data Entered On 125V Station Tech Spec Batt. Surv.
- AR 2219453; Lube Oil Turbine Trip Low
- AR 2227361; GAMP Sentinel Points Not in Monthly Venting Procedures
- AR 2353222; Documentation AR TS-5, Unit 1 Control Rod Exercise
- AR Search; SI-V14; September 27, 2010 – September 27, 2017
- AR Search; surveillance; March 2 – September 27, 2017
- Drawing P-102; Safety Injection; Revision 13
- Drawing P-119 Job 10447; Safety Injection from Pump P-15 A&B to CTMT. PENET. P-27 & P-13 4" & 6" SI-1501R-1, -2, & -3; Revision 13
- Drawing P-148 Job 10447; Aux. Coolant From Pen. P-7/8 To SIS (V-720 & 852A) & to RCS (V-701) Inside Containment; Revision 9
- GAMP; Gas Accumulation Management Program; Revision 6
- IT 03 Train B; Low Head Safety Injection Pumps and Valves Train B Unit 1; Revision 5
- Letter from Point Beach Nuclear Plant, Unit 1, to U.S. Nuclear Regulatory Commission; Titled Point Beach Nuclear Plant, Unit 1, Nine-Month Supplement (Post-Outage) Response to NRC Generic Letter 2008-01; February 11, 2009
- Letter from Point Beach Nuclear Plant, Unit 2, to U.S. Nuclear Regulatory Commission; Titled Point Beach Nuclear Plant, Unit 2, Nine-Month Supplement (Post-Outage) Response to NRC Generic Letter 2008-01; March 5, 2010
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- NP 7.7.37; Surveillance Frequency Control Program Manual; Revision 5
- OI 128E; SI System Sentinel Point Gas Void Venting Unit 1; Revision 1
- OI 135E; LHSI Core Deluge Venting Train A Inside Containment Unit 1; Revision 7
- Station Log Search; TS-ECCS-002; June 6, 2017 – September 26, 2017
- Station Logs; September 28, 2017
- TS 4A; Turbine Trip Test, Unit 2; Revision 31
- WO 40061405; Unit 1 UT Monitoring of SI-V14-PAB

1EP6 Drill Evaluation

- AOP-12A; Oil, Hazardous Material, and Radioactive Materials Spill; Revision 40
- AOP-1B, Unit 1; Reactor Coolant Pump Malfunction; Revision 24
- AOP-5B; Loss of Instrument Air; Revision 47
- CSP-S.1, Unit 1; Red/Orange; Response to Nuclear Power Generation / ATWS; Revision 40
- EPIP 1.1; Course of Actions; Revision 76
- EPIP 1.2; Emergency Classification; Revision 53
- EPIP 2.1; Notifications – ERO, State and Counties, and NRC; Revision 54
- EPIP 4.1; Technical Support Center (TSC) Actuation and Evacuation; Revision 53
- EPIP 11.2; Medical Emergency; Revision 34
- Point Beach Nuclear Plant 2017 Pre-Ingestion Pathway Exercise Manual; August 7, 2017

2RS7 Radiological Environmental Monitoring Program

- AR 2060236; Reg Guide 1.21 Section 2.2 Conditions Not Being Met
- AR 208384; Environmental Groundwater Samples Not Obtained
- AR 2106383; Inland Met Tower Data Loss (Potential Trend)

- AR 2183211; No AP/Charcoal Air Sample at SBCC (E-02)
- AR 2210248 (LICA 02080209); Level 1 Assessment – 2017 REMP Inspection IP 71124.07
- AR 230240; Z-139 Inland Met Tower Recorder Results for Comm Issues
- CAMP Water Protection Sampling Procedure; Revision 8
- HPIP 3.58.1; Air Sampling Data Sheet; Revision 6
- HPIP 3.58.1; Radiological Environmental Sampling Checklist; Revision 6
- HPIP 3.58.1; Radiological Environmental Sampling; Revision 6
- HPIP 3.58; Ground Water and Subsoil Tritium Sampling; Revision 25
- Low Volume Air Sampler Maintenance and Calibration Record; August 7, 2016
- Point Beach Nuclear Plant 2015 Dry Activated Waste Analysis per 10 CFR 61; August 13, 2015
- Point Beach Nuclear Plant, Units 1 and 2, 2016 Annual Monitoring Report; April 28, 2017
- Radiological Environmental Sampling Checklist
- Work Order Package 40476944 01; ICP 06.055; Meteorological Tower Instrumentation 6 Month Calibration Procedure; May 1, 2017

4OA1 Performance Indicator Verification

- AR 1328813; MSPI Basis Document Error in WSW Pump Runtimes
- MSPI Derivation Report; MSPI Systems; Unavailability Index; Units 1 and 2; July 2016, November 2016, February 2017, and April 2017
- MSPI Derivation Report; MSPI Systems; Unreliability Index; Units 1 and 2; July 2016, November 2016, February 2017, and April 2017
- NRC Reactor Oversight Program; MSPI Basis Document for Point Beach Nuclear Plant; Revision 25

4OA2 Identification and Resolution of Problems

- AD-AA-100-1006; Procedure and Work Instruction Use and Adherence; Revision 12
- AR 1641275; Manhole #1 Degraded Cable Supports
- AR 1641291; Manhole #2 Degraded Cable Supports
- AR 1782153; Z-065A Manhole Filled With Water Above Cables
- AR 1782307; Z-065A Unistrut Collapse During Performance of WO 40171797
- AR 1793399; Z-065B; Manhole #2 Degraded Cable Supports
- AR 1909273; Z-65A/B Manhole Unistrut Very Degraded and Failing
- AR 2012234; DNA Issue: Cable Vault Flooding Generic Issue
- AR 2066210; Unistrut Severely Corroded and Broken Isolator
- AR 2213062; Tagging Event: Work Performed Unprotected
- AR 2213292; NESHOC Actions – Formality and Rigor
- AR 2213808; Clearance Error Performance Indicator Turns Red
- AR 2215446; Pick-Up Truck Parked By Circ Water Pump House NRC ID
- AR 2215610; eSOMS Gap with NextEra System Password Policy
- AR 2215696; PBN Internal OE: eSOMS Password Gaps
- AR 2216207; Door-486 Not Flush – NRC Identified
- AR 2219544; Tagging Near Miss
- AR 2219831; L1A for Tagging Near Miss
- AR 2219923; NRC Identified Issue with Severe Weather in Phoenix Tracking
- AR 2220395; Discuss CR2213062 Tagging Event
- AR 2221376; 2017 HU Strategic Plan – August 2017
- AR 2221619; EAL Threshold Value Change Process Implementation
- AR 2221775; Potential Failure Mechanism Z-65 Manholes

- AR 2224435; Rejected PMCR Implemented, Led to Missed Reg Commitment
- AR Component Search; Z-065A, Z-065A-P, Z-065B, Z-065B-P; Feb 28, 2011 - September 29, 2017
- AR Search; Manhole #1; February 28, 2011 – September 29, 2017
- OP-AA-101-1000; Clearance and Tagging; Revision 20
- PI-AA-100-1005; Root Cause Analysis; Revision 15
- Primavera Scheduling Screenshot for WO 40080737-01; Z-065B; Manhole #2 Degraded Cable Supports
- WM-AA-201; Work Order Identification, Screening and Validation Process; Revision 26
- WO 40080735; Z-065A; Manhole #1 Degraded Cable Supports; TIMM101 – Task Profile Screenshot
- WO 40080735; Z-065A; Manhole #1 Degraded Cable Supports; TIMM130 – Status Tracking Screenshot
- WO 40080737; Z-065B; Manhole #2 Degraded Cable Supports; TIMM101 – Task Profile Screenshot
- WO 40080737; Z-065B; Manhole #2 Degraded Cable Supports; TIMM130 – Status Tracking Screenshot
- Work Order Task Status Summary Sheet

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
AOP	Abnormal Operating Procedure
AR	Action Request
CAP	Corrective Action Program
CAQ	Condition Adverse to Quality
CFR	*Code of Federal Regulations*
EP	Emergency Preparedness
IMC	Inspection Manual Chapter
IP	Inspection Procedure
JPM	Job Performance Measure
KV	Kilovolt
LORT	Licensed Operator Requalification Training
MSPI	Mitigating Systems Performance Index
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OOS	Out-of-Service
PAB	Primary Auxiliary Building
PI	Performance Indicator
RPS	Reactor Protection System
SAT	System Approach to Training
SDP	Significance Determination Process
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
WO	Work Order