



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

July 1, 2021

Mr. Michael Strope
Site Vice President
NextEra Energy Point Beach, LLC
6610 Nuclear Road
Two Rivers, WI 54241-9516

SUBJECT: POINT BEACH NUCLEAR PLANT – TRIENNIAL INSPECTION OF
EVALUATION OF CHANGES, TESTS AND EXPERIMENTS BASELINE
INSPECTION REPORT 05000266/2021010 AND 05000301/2021010

Dear Mr. Strope:

On May 21, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Point Beach Nuclear Plant and 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.

No findings or violations of more than minor significance were identified during this inspection.

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 Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Richard A. Skokowski, Chief
Engineering Branch 3
Division of Reactor Safety

Docket Nos. 05000266 and 05000301
License Nos. DPR-24 and DPR-27

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to Michael Strobe from Richard A. Skokowski dated July 1, 2021.

SUBJECT: POINT BEACH NUCLEAR PLANT – TRIENNIAL INSPECTION OF
EVALUATION OF CHANGES, TESTS AND EXPERIMENTS BASELINE
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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Numbers: 05000266 and 05000301

License Numbers: DPR-24 and DPR-27

Report Numbers: 05000266/2021010 and 05000301/2021010

Enterprise Identifier: I-2021-010-0049

Licensee: NextEra Energy Point Beach, LLC

Facility: Point Beach Nuclear Plant

Location: Two Rivers, WI

Inspection Dates: May 17, 2021 to May 21, 2021

Inspectors: K. Barclay, Reactor Inspector
J. Bozga, Senior Reactor Inspector
J. Neurauter, Senior Reactor Inspector

Approved By: Richard A. Skokowski, Chief
Engineering Branch 3
Division of Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a triennial inspection of evaluation of changes, tests and experiments baseline inspection at Point Beach Nuclear Plant, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

List of Findings and Violations

No findings or violations of more than minor significance were identified.

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
URI	05000266, 05000301/2021010-01	Containment Air Recirculation System Design Function Change	71111.17T	Open

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards. Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), inspectors were directed to begin telework. In addition, regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

REACTOR SAFETY

71111.17T - Evaluations of Changes, Tests, and Experiments

Sample Selection (IP Section 02.01) (30 Samples)

The inspectors reviewed the following evaluations, screenings, and/or applicability determinations for 10 CFR 50.59 from September 2018.

- (1) 50.59 Evaluation 2020-002, Extend Surveillance Intervals for Independent Overspeed Protection System (IOPS), Cross-Over Steam Dumps, Turbine Over-Speed Trip Device, and Turbine Trip and Stop Valves
- (2) 50.59 Screening 2018-0159, Revise AOP-9A Step 16.b to Secure Containment Cooling Fans
- (3) 50.59 Screening 2019-0006, 1P-2C Charging Pump Suction Pressure Indicator Throttled
- (4) 50.59 Screening 2019-0067, Raise Flooding High Lake Level Trigger Points
- (5) 50.59 Screening 2019-0094, Install Duplex Strainers in Service Water Supply Lines to the Three Service Water Cooled Air Compressors (K-2A, K-2B, K-3B)
- (6) 50.59 Screening 2019-0120, HV-487, VNDRM-4512 Temperature Control Valve Outlet Isolation Abnormally Aligned Shut
- (7) 50.59 Screening 2019-0121, HV-606, HX-83A, EL 8', PAB Fan Room Unit Heater Steam Inlet Abnormally Aligned Shut
- (8) 50.59 Screening 2020-0014, 2CV-290, 2P-2C Charging Pump Discharge Valve, Gagged Closed
- (9) 50.59 Screening 2020-0033, 2MS-5501A Packing Leak Sealant Injection
- (10) 50.59 Screening 2020-0035, Isolation of Unit 1 Accident Fan(s) Dependent on Service Water Leakage Detection
- (11) 50.59 Applicability Determination, EC 294090: Final Safety Analysis Report (FSAR) Update to Sections 7.2.3.5 and 9.8.1 to Clarify Temperature
- (12) 50.59 Applicability Determination, EC 295543: FSAR Table A.5-3

- (13) 50.59 Applicability Determination, EC 295893; Revise Updated Final Safety Analysis Report (UFSAR) Section 5.6 and Appendix A.5 to Incorporate License Amendment 263 (Unit 1) and 266 (Unit 2) Containment Dome Truss
- (14) 50.59 Screening 2018-0173, Post-Outage Containment Closeout Inspection Unit 1 & 2 (CL-20, CL-20A)
- (15) 50.59 Screening 2018-0181, EC 292393: Generic Seismic III/Ladder Storage Bracket (Drawing C-375)
- (16) 50.59 Screening 2018-0201, LR-AMP-021-OCCW, Open Cycle Cooling (Service) Water - Revision 9
- (17) 50.59 Screening 2019-0093, EC 293591 (Service Water) SW Leak Pipe Patch TCC Downstream of SW-371
- (18) 50.59 Screening 2019-0106, EC 293808 1MS-2027 Flange Leak Repair
- (19) 50.59 Screening 2020-019, Leaving Rigging Links in Containment During Power Operations
- (20) 50.59 Screening 2020-0056, NP 7.7.14 Rev 13, Reactor Vessel Integrity Program
- (21) 50.59 Screening 2019-0089, Radiologic Shielding Improvements U1 and U2 Containment
- (22) 50.59 Applicability Determination, EC 294464 Revise FSAR 7.5 for Simplification of (Leading Edge Flow Meter) LEFM
- (23) 50.59 Screening 2020-0052, 0-SOP-DC-001, 0-SOP-DC-002, 0-SOP-DC-003, 0-SOP-DC-004 and 0-SOP-DC-005 125 VDC System and Components
- (24) 50.59 Screening 2018-0157, Provide Additional Containment Cooling Using 1/2SW-2907 or 1/2SW-2908, Hx-15A - D Cont Recirc (Heat Exchanger) HX Emergency (Flow Control Valve) FCV
- (25) 50.59 Screening 2019-0047, 1(2)P-53 (Motor-Driven Auxiliary Feed Water) MDAFW Pump Seal Leakage Temporary Alternate Drains Through HV-540 Condensate Return
- (26) 50.59 Screening 2020-0003, Revise Safety Classification for 1(2)A-01 and 1(2)A-02 Undervoltage and Underfrequency Circuits
- (27) 50.59 Screening 2019-0023, U1R38 - Temp Power to H-08 & H-09
- (28) 50.59 Screening 2019-0064, PBTP 268 - Unit 1 Online Verification of Real and Reactive Power Capability for (North American Electric Reliability Corporation) NERC Standard Mod-025-2
- (29) 50.59 Screening 2020-0057, Abnormal Alignment - 1WL-1728 Aligned Open
- (30) 50.59 Screening 2020-092, TRM 3.7.6 Turbine Overspeed Protection

INSPECTION RESULTS

Unresolved Item (Open)	Containment Air Recirculation System Design Function Change URI 05000266,05000301/2021010-01	71111.17T
<p><u>Description:</u></p> <p>The inspectors reviewed 10 CFR 50.59 Screening 2018-0157, "Provide Additional Containment Cooling Using 1/2SW-2907 or 1/2SW-2908, HX-15A-D Cont Recirc HX Emergency FCV," dated August 27, 2018, which evaluated a change to an operating procedure for the containment air recirculation system associated with the alignment of the containment air recirculation system to provide additional containment cooling during normal operations.</p> <p>The design basis of the Service Water (SW) system is to provide sufficient flow to support the</p>		

heat removal requirements of components required to mitigate the consequences of a Loss of Coolant Accident (LOCA) in one unit, while supporting the normal flow of the unaffected unit. Under the conditions of a LOCA and concurrent Loss-of-Offsite Power (LOOP), any three SW pumps are capable of providing the necessary cooling capacity for the essential loads for the affected unit and supply SW for the normal operation of the unaffected unit. When a Safety Injection (SI) signal is present, the containment cooler outlet valves (1/2SW-2907 and 1/2SW-2908) open, non-essential SW load valves close, and all six SW pumps receive start signals on a timed sequence.

The containment air coolers are aligned for emergency cooling by opening one of the containment cooler outlet valves (1/2SW-2907 or 1/2SW-2908) that bypasses the normal flow restricting orifice in the system. The increased SW flow causes an increase in the air cooler capacity to approximately 19 times the normal cooling rate. However, because of SW capacity limitations, opening the containment cooler outlet valves for the containment coolers places the opposite unit in a SW Technical Specification (TS) Action Condition. The SW system flow capacity is not adequate to support emergency containment cooling on one unit, during normal operations, and the SW requirements for a design basis accident with an assumed single failure on the opposite unit.

10 CFR 50.59 Screening 2018-0157 concluded that the change did not adversely affect the SW system design function. However, the inspectors identified that the 10 CFR 50.59 Screening SCR 2018-0157, stated, in part, "In this condition, the overall reliability is reduced because a single failure could result in a system configuration which could not assure adequate flow to required equipment."

Licensee procedure, EN-AA-203-1201, 10 CFR Applicability and 10 CFR 50.59 Screening Reviews, Revision 21, Section 4.5 10 CFR 50.59 Screening, Step 11 stated, in part, "It is necessary and expected that NEI 96-07, Revision 1, including Appendix E, and NEI 01-01, Revision 1 be consulted when performing the regulatory reviews governed by this procedure. These industry guidance documents elaborate on the specific screening questions and provides a description of the intent of each question and expected level of response. Refer to Section 4.2 of NEI 96-07, Revision 1 for the guidance applicable to performing a 10 CFR 50.59 screen."

NEI 96-07, "Guidelines for 10 CFR 50.59 Evaluations," Revision 1, are acceptable to the NRC staff for complying with the provisions of 10 CFR 50.59. Title 10 CFR 50.59(a)(1) defines, in part, a change as a modification or addition to, or removal from, the facility that affects a design function or an evaluation that demonstrates that the intended function will be accomplished. Section 3.3 of NEI 96-07, in part, defines a change as a modification or addition to, or removal from, the facility or procedures that affects an evaluation that demonstrates that intended functions will be accomplished.

In addition, Section 4.2.1, "Is the Activity a Change to the Facility or Procedures as Described in the UFSAR?," of NEI 96-07 provides the following guidance: "Changes are 'screened in' (i.e., require a 10 CFR 50.59 evaluation) if they adversely affect an SSC design function." A change that decreases the reliability of an SSC design function, including either functions whose failure would initiate a transient/ accident or functions that are relied upon for mitigation would be considered to adversely affect a design function and would screen in. Hence, the decrease in the reliability of the SW system design function would require a 10 CFR 50.59 evaluation.

This unresolved item is being opened to determine if a violation of NRC requirements exists.

Planned Closure Actions: The inspectors need to review the licensee's completed 50.59 evaluation to determine if a finding or a violation of NRC requirements exists, including the requirements found in 10 CFR 50.59 paragraphs (c)(1) or (d)(1).

Licensee Actions: Reassess screening SCR 2018-0157 to address the change activity, and if adverse, address the change as a 50.59 evaluation.

Corrective Action References: AR 2393904: 2021 NRC 50.59 INSP. SCR 2018-0157

AR 2393903: 2021 Potential Containment Temperature Discrepancy

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On May 21, 2021, the inspectors presented the triennial inspection of evaluation of changes, tests and experiments baseline inspection results to Mr. M. Strobe, Site Vice President and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.17T	Calculations	129187-M-0022	Verification of Adequacy of Containment Fan Cooler Units during Normal Operations under Extended Power Uprate (EPU) Conditions	1
	Corrective Action Documents	2295255	EC 292506 Repair of 1CW-3502 Needs a Screening or Evaluation	12/19/2018
		2302879	P-53 Packing Leakage System Installed without a TCC	02/21/2019
		2305891	Missed Required Procedure Reviews	03/15/2019
		2323666	50.59 Screening on Scaffolds Up Over 90 Days	08/07/2019
		2329686	Revise 20 CFR 50.59 Screening 2019-001	09/30/2019
		2337234	Safety Classification Discrepancy	12/03/2019
		2337968	Incomplete Bases Documentation for EOP Changes	12/11/2019
		2338267	EOPs Revised without Sufficient Applicability and Screening	12/13/2019
		2340361	50.59 Screening on Scaffolds Up Over 90 Days	01/08/2020
		2341458	LIA Assessment: PCRs Inadvertently Missed Reviews	01/16/2020
		2351425	2MS-5501A Packing Leak	04/05/2020
		2361666	Abnormal Alignment: 1WL-1728	07/02/2020
	2387160	Scaffold 1942 Documented as Removed by Remains in Place	03/17/2021	
	Corrective Action Documents Resulting from Inspection	2393718	2021 NRC 50.59 INSP. SCR 2018-0157	05/19/2021
		2393817	2021 50.59 Inspection - Unable to Locate Design Documents	05/20/2021
		2393832	2021 NRC 50.59 INSP., EC 295629, Acoustic Emission Testing	05/20/2021
		2393903	2021 NRC 50.59 INSPEC., Potential Ctmt. Temp. Discrepancy	05/20/2021
		2393904	2021 NRC 50.59 INSP. SCR 2018-0157	05/20/2021
	Drawings	499B466 Sheet 202	Elementary Wiring Diagram 4160V Switchgear 1A01 CUB-3 Incoming Line 1A03-PT/1A01	22
		499B466 Sheet 204	Elementary Wiring Diagram 4160V Switchgear, CUB.16 Bus Tie to 1A-04 At 1A52-55	19
		499B466 Sheet 207	Elementary Wiring Diagram 4160V Switchgear 2A01, CUB. 18 Bus Tie from 2A-03 At 2A52-44	20
		499B466 Sheet	Elementary Wiring Diagram 2A02 Bus Tie 2A52-48 to Bus	21

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		209	2A-04 2A00-34	
		E-11 Sheet 2	Schematic Meter & Relay Diagram 4160V Auxiliary System	12
		E-2011 Sheet 1	Schematic Meter & Relay Diagram 4160V Auxiliary System	09
		E-2011 Sheet 2	Schematic Diagram Meter & Relay Diagram 4160V Auxiliary System	13
		E-2011 Sheet 3	Schematic Meter & Relay Diagram 4160V Auxiliary System	13
		E-2011 Sheet 4	Three Line Diagram EDG G-04 4160V Bus 2-A06 Relay & Metering	12
	Engineering Changes	291748	Install Duplex Strainers in Service Water Supply Lines to the Three Service Water Cooled Air Compressors (K-2A, K-2B, K-3B)	5
		293515	Radiologic Shielding Improvements U1 and U2 Containment	5
		294090	FSAR Update to Sections 7.2.3.5 and 9.8.1 to Clarify Temperature	1
		294316	2CV-290, 2P-2C Discharge Valve Stem Gag	0
		294621	Installation of Leak Injection Sealant for Packing of 2MS-5501A	0
		294916	Chapter 14.1.12 Update with New Turbine Overspeed Calculation	0
		295629	Use of Acoustic Emission Technology as an Alternate Method for NDE of Special Lifting Devices EE 2020-0020	01/20/2021
	Engineering Evaluations	EE 2020-0020	Use of Acoustic Emission Technology as an Alternate Method for NDE of Special Lifting Devices	0
	Miscellaneous		Unit 2 Circulating Water - Service Water Temperatures	08/18-22/2018
			Units 1 & 2; Containment Temperatures	08/18-22/2018
			Unit 2; Graph of Containment Air and Circulating Water Temperatures	08/18-22/2018
		EC-UCR 294090	UFSAR Change Request: FSAR Update to Sections 7.2.3.5 AND 9.8.1 to Clarify Temperature	0
		PCR 2269200	Procedure Change Request: Revise AOP-9A	06/20/2018
		PCR 2319200	Procedure Change Request: PBF-2124a – Average Converted Lake Level	06/25/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		PCR 2319202	Procedure Change Request: AOP-13C – Severe Weather Conditions	06/25/2019
		PCR 2355135	Procedure Change Request: Change TRM, TSR 3.7.6.1, .2, .3, .4 Surveillance Intervals	04/30/2020
	Procedures	1-SOP-4KV-001	4KV System Operation Unit 1	10
		AOP-0.0	Abnormal Operating Procedure: Vital DC Malfunction	37
		AOP-40D	Abnormal Operating Procedure: Response to Fire in PAB 26 FT North of Monitor Tanks	4
		EN-AA-203-1100	Engineering Evaluations	13
		EN-AA-203-1102	Safety Classification Determination	7
		EN-AA-203-1201	10 CFR Applicability and 10 CFR 50.59 Screening Reviews	21
		EN-AA-203-1202	10 CFR 50.59 Evaluation	3
		EN-AA-205-1100	Design Change Packages	31
		EN-AA-205-1102	Temporary Configuration Changes	17
		LI-AA-101-1003	Updated Final Safety Analysis Report (UFSAR) Revision	11
		NP 7.2.30	Quality-Basis Values and Quality Group Codes	2
		OI 72	Containment Air Recirculation System	18
		OP 2B	345 KV Transmission System Impacts Upon PBNP Station Operations	19
		PBTP 268	Unit 1 Online Verification of Real and Reactive Power Capability for NERC Standard MOD-025-2	0
		RMP 9359-5C	D-305 Station Battery, D-09 Battery Charger Maintenance and Surveillances	23
		RMP 9359-6C	D-305 Station Battery, D-109 Battery Charger Maintenance and Surveillances	20
		TS 33	Containment Accident Recirculation Fan-Cooler Units Unit 1	42
	Work Orders	WO 40713603 07	OPS WP 2020-016: 1HX-15C, Containment Accident Recirculation Heat Exchanger Isolation	04/27/2020