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

July 10, 2024

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

SUBJECT: POINT BEACH NUCLEAR PLANT – AGE-RELATED DEGRADATION INSPECTION REPORT 05000266/2024010 AND 05000301/2024010

Dear Michael Durbin:

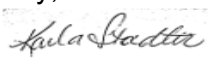
On June 21, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Point Beach Nuclear Plant and discussed the results of this inspection with Eric Schultz, Regulatory Assurance Manager, and other members of your staff. The results of this inspection are documented in the enclosed report.

One finding of very-low safety significance (Green) is documented in this report. This finding did not involve a violation of NRC requirements.

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

Sincerely,



Signed by Stoedter, Karla
on 07/10/24

Karla Stoedter, Branch Chief
Engineering Branch 1
Division of Operating 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 Durbin from Karla Stoedter dated July 10, 2024.

SUBJECT: POINT BEACH NUCLEAR PLANT – AGE-RELATED DEGRADATION INSPECTION REPORT 05000266/2024010 AND 05000301/2024010

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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:	05000266/2024010 and 05000301/2024010
Enterprise Identifier:	I-2024-010-0052
Licensee:	NextEra Energy Point Beach, LLC
Facility:	Point Beach Nuclear Plant
Location:	Two Rivers, WI
Inspection Dates:	April 29, 2024 to June 21, 2024
Inspectors:	K. Fay, Senior Reactor Inspector E. Fernandez, Senior Reactor Inspector T. Hartman, Senior Project Engineer
Approved By:	Karla Stoedter, Branch Chief Engineering Branch 1 Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an age-related degradation 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

Failure to Inspect the Fire System Accumulator Tank			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000266,05000301/2024010-01 Open/Closed	[H.8] - Procedure Adherence	71111.21N.04
The inspectors identified a finding of very-low safety significance (Green) for the licensee's failure to inspect a portion of the fire protection system. Specifically, the licensee failed to ensure the bottom of the fire protection accumulator tank was free of oil, dirt, or other extraneous matter which could obscure surface defects such as pitting, cracking, and erosion prior to examining the tank's internal bottom surface. In addition, an action request was not initiated when indications of corrosion were discovered.			

Additional Tracking Items

None.

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.

REACTOR SAFETY

71111.21N.04 - Age-Related Degradation

Age-Related Degradation (12 Samples)

(1) Cable Spreading Room Air Conditioning Unit Chiller (HX-38A)
(2) Cable Spreading Room Fan Motors (W-13A1/A2)
(3) Fire Protection System Accumulator Tank (T-73)
(4) G-01 Emergency Diesel Generator (EDG) Service Water Strainer (F-215)
(5) G-01/G-02 EDG Air Start Receiver Tanks (T-60/T-61)
(6) G-05 Gas Turbine Battery (D501)
(7) G-05 Gas Turbine Turning Gear (Z-500)
(8) P-32A Service Water Pump Flexible Expansion Joint (XJ-2974A)
(9) Spent Fuel Pool Heat Exchanger Service Water Inlet Valves (SW-2927A/B)
(10) Unit 1 Rod Position Indication System Cabling
(11) Unit 2 Crossover Steam Dump Valve (2-OS-4-DV)
(12) Unit 2 Service Water Outlet Radiation Monitor (2RE-229)

INSPECTION RESULTS

Failure to Inspect the Fire System Accumulator Tank			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000266,05000301/2024010-01 Open/Closed	[H.8] - Procedure Adherence	71111.21N.04
The inspectors identified a finding of very-low safety significance (Green) for the licensee's failure to inspect a portion of the fire protection system. Specifically, the licensee failed to ensure the bottom of the fire protection accumulator tank was free of oil, dirt, or other extraneous matter which could obscure surface defects such as pitting, cracking, and erosion prior to examining the tank's internal bottom surface. In addition, an action request was not initiated when indications of corrosion were discovered.			
Description: Point Beach Nuclear Plant established procedure LR-AMP-010-FP, "Fire Protection Program Basis Document for License Renewal," as one of the implementing procedures for their license renewal (LR) program. The purpose of this procedure is to monitor system aging,			

specifically for the fire protection system, during the period of extended operation, which they entered in 2010. Procedure LR-AMP-010-FP describes the fire protection system as consisting “of a 10 inch ring header fire main laid underground around the plant. The main is connected to the discharge side of each of two fire pumps. This ring header supplies water to the suppression system piping inside the plant. The distribution piping supplies the wet pipe sprinkler systems, dry pipe sprinkler systems, deluge systems, the pre-action system, and hose stations throughout the plant. This system is pressurized by an accumulator and jockey pump, and an air compressor which maintains system pressure and level in the accumulator tank.” Attachment B to this procedure specifies implementing preventative maintenance requirement (PMRQ) 60968-01, which requires the licensee to open and inspect the fire system accumulator tank. Per the licensee’s preventative maintenance program this inspection is performed every 2 years.

The inspectors reviewed the fire protection system accumulator tank (T-73) inspection results and requested the last several completed work orders (WO). Preventative maintenance requirement 60968-01 was most recently implemented by performance of WO 40796864. The WO included instructions to perform an inspection (LR requirement) in accordance with maintenance instruction (MI) 32.14, “Visual Inspections for License Renewal,” Revision 6. Maintenance Instruction 32.14, Step 3.1 states, “The examination surface shall be free of oil, dirt or other extraneous matter which could obscure surface defects. Surface preparation may include cleaning with solvents, brushing or other methods that would not gouge or smear the surface so as to mask indications.” Step 3.2 defines surface defects as “pitting, cracking and erosion.”

The completed WO included pictures of the internal surface of the tank after it was cleaned. The inspectors reviewed the results of the WO and noted the pictures showed several areas of corrosion across a significant portion of the inside of the bottom of the accumulator tank. This condition could obscure surface defects because it would not allow the licensee to detect, via visual inspection, any pitting, cracking, or erosion occurring beneath the corrosion. In addition, the WO had instructions to initiate an action request if indications of corrosion are discovered (LR requirement). This step was not performed as indicated by an N/A [not applicable] in the signature field.

The inspectors concluded the inspection was not performed as required and that the identification of corrosion products inside the bottom of the tanks were not entered into their corrective program.

Corrective Actions: The licensee entered this issue into their corrective action program and planned to have the License Renewal Engineer review the Aging Management Program to determine if additional testing is needed to address the aging of the tank.

Corrective Action References: AR 02486433

Performance Assessment:

Performance Deficiency: The licensee’s failure to inspect the fire system accumulator tank in accordance with LR-AMP-010-FP, “Fire Protection Program Basis Document for License Renewal,” and to write an action request when corrosion was discovered was a performance deficiency. Specifically, the licensee failed to ensure the internal bottom surfaces of the fire system accumulator tank were free from oil, dirt, or other extraneous matter which could obscure surface defects prior to inspecting the bottom of the tank. As a result, the licensee could not conclude the tank’s license renewal inspection was complete. This identification of

corrosion inside the tank's bottom was also not documented within the corrective action program.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Protection Against External Factors attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to inspect the bottom of the fire system accumulator tank reduced the ability to ensure the tank would not fail adversely affecting the fire protection system.

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix F, "Fire Protection and Post - Fire Safe Shutdown SDP." The inspectors screened the finding using IMC 0609, Appendix F, Attachment 1, "Part 1: Fire Protection SDP Process Worksheet," and answered "yes" to Question 1.4.3, "Would adequate fire water capacity (flow at required pressure) still be available for protection of equipment important to safe shutdown in the most limiting location onsite?" The failure to inspect the fire system accumulator tank did not impact the fire protection system's ability to reach the most limiting location. Therefore, the inspectors determined that the finding screened as having very-low safety significance (Green).

Cross-Cutting Aspect: H.8 - Procedure Adherence: Individuals follow processes, procedures, and work instructions. Specifically, the licensee failed to properly prepare the surface prior to an inspection as required by MI 32.14 instructions.

Enforcement:

The inspectors did not identify a violation of regulatory requirements associated with this finding.

EXIT MEETINGS AND DEBRIEFS

The inspectors confirmed that proprietary information was controlled to protect from public disclosure.

- On June 21, 2024, the inspectors presented the age-related degradation inspection results to Eric Schultz, Regulatory Assurance Manager, and other members of the licensee staff.
- On May 17, 2024, the inspectors presented the age-related degradation initial inspection results to Michael Durbin, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N.04	Calculations	2005-0050	Primary Auxiliary Building and Control Building Electrical Heat Load Calculation	0
	Corrective Action Documents	AR 1161654	EDG Air Receiver Tank Min Wall Calculations	11/20/2009
		AR 1369617	License Renewal Examination Results for T-073 Tank	11/02/2009
		AR 1369629	License Renewal Exam of K-006 Compressor for 0T-073 Tank	04/24/2010
		AR 1377291	Acceptance Criteria Not Met on T-060/61 UT Inspection for LR	11/24/2015
		AR 1734606	Inadequate MWO Causes Lack of Schedule Adherence	04/26/2012
		AR 2008322	UT Results Below Trigger Value for T-60/T-61 Exams	03/10/2015
		AR 2238594	T-60D EDG Air Receiver Wall Thickness Readings Below T-min	12/08/2017
		AR 2249012	1RE229 SWOB Sample Pump Vibration	02/12/2018
		AR 2291688	O-Rings not Available for SW Strainer	11/20/2018
		AR 2341050	Minor Leak on F-215 EDG Inlet Strainer	01/16/2020
		AR 2356877	G01 SW Duplex Strainer Unable to be Cleaned	07/28/2020
		AR 2371391	W-13A1 Cable Spreading Room Recirc Fan Will Not Start	12/16/2020
		AR 2412809	F-215 G-01 Strainer Cover Seepage	12/31/2021
		AR 2428496	G-05 Stop Push Button High Resistance	05/26/2022
		AR 2434452	PI-6739 Discharge Pressure Indicator is Reading Low	08/16/2022
		AR 2453776	U2 Crossover Dump Valve Will Not Reliably Seat	04/08/2023
		AR 2476417	2OS-4-DV Not Tested	01/11/2024
		AR 2476805	D-501 Cells Are Not Within 5 Degrees	01/17/2024
		AR 2477312	2OS-4-DV Test/Troubleshoot for 2R40	01/23/2024
		AR 2478801	D-501 125V Station Battery is Reach Its End of Life	02/09/2024
		PCR 2087546	(S) RMP 9216-2A - Service Water Pump Removal, Installation	10/31/2015
		PCR 2090218	(P) RMP 9216-2A - Service Water Pump Removal, Installation	11/10/2015
		RWT 2065016	Pump Disch Expansion Joint Insps May be Inadequate	08/05/2015
	Corrective Action	AR 2485245	2024 NRC ARD Missing Insulation Lagging on SW Pipe	04/30/2024

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Documents Resulting from Inspection	AR 2485303	2024 ARD Inspection G-05 Axial Compressor Oil Leak	04/30/2024
		AR 2485496	2024 NRC ARD Start and Run Hour Meters Not Working On HX-38A	05/02/2024
		AR 2485519	2024 NRC ARD - WO Record Missing Sign-offs	05/03/2024
		AR 2485559	2024 NRC ARD - XJ-2974A, P-32A Expansion Joint, Showing Sign	05/03/2024
		AR 2485694	2024 NRC ARD Inspection - Incorrect G-501 Voltage Documented	05/06/2024
		AR 2485734	2024 NRC ARD - Power Strip Within Cabinet C-120A and C-121	05/06/2024
		AR 2485739	2024 NRC ARD - D-501 Past Procedure Performance Issue	05/06/2024
		AR 2485799	Work Order Closeout Quality	05/07/2024
		AR 2486377	2024 NRC ARD - Missing Signature in WO Record	05/15/2024
		AR 2486433	2024 NRC ARD - Condition Reports not Submitted for Corrosion	05/15/2024
		AR 2486436	2024 ARD - NRC Observation - Worker Practices, Reviews	05/15/2024
		AR 2486563	2024 NRC ARD - Fan Bearing Greasing - Critical Step	05/17/2024
	Drawings	499B466 Sh. 542B	Elementary Wiring Diagram Cable Spreading Room Recirculation Fan W-13A2	3
		M-144 Sh. 2	Heating & Ventilation Temperature Control P&ID Temperature Control	25
	Engineering Changes	294538	1/2 RE-229 and RE-230 Fuse Replacement	0
	Miscellaneous	DBD-29	Auxiliary Building and Control Building HVAC	8
		FPTE 2016-003	NFPA 805 Nuclear Safety Capability Assessment	2
		LR-AMP-004-PSPM	Periodic Surveillance and Preventive Maintenance Program for License Renewal	12
		LR-AMP-010-FP	Fire Protection Program Basis Document for License Renewal	9
		LR-AMP-014-CCMON	Cable Conditioning Monitoring Program for License Renew	11
		LR-AMP-019-	Tank Internal Inspection Program Basis Document for	9

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		TNKINT	License Renewal	
		PB-EPU-09-1168	Transmittal of Siemens Report for EC-08109	05/19/2009
		VTM 00277	125 V DC Station Batteries	18
		VTM 01105 Book 2	Trane HVAC Composite Book	0
	Procedures	0-SOP-VNCSR-002	Cable Spreading Room Ventilation System Normal Operation	5
		2-PT-MS-003	Crossover Steam Dump	23
		IT 72	Service Water Valves (Quarterly)	41
		LM 2.1	Lubrication Manual	81
		MI 32.14	Visual Inspection for License Renewal	6
		PC 10 Part 3	SW to SFP MOVs and Radwaste System AOVs Leak Check	11
		PC 29	Gas Turbine and Auxiliary Diesel Load Test	77
		RMP 9216-2A	Service Water Pump Removal, Installation, and Maintenance	6
	Work Orders	238021-01	Replace Expansion Joint	11/28/2001
		40073979-01	Inspect and Maintain Pump	09/10/2012
		40103522	P-032A Replace Pump per EC272153	10/17/2017
		40291866-01	T-073 Open and Inspect Accumulator Tank	08/12/2014
		40299630	VNCSR-Damper Blade Seal Cleaning	09/22/2014
		40384004	Damper Operability	02/10/2016
		40419943-01	T-073 Open and Inspect Accumulator Tank	08/18/2016
		40583160	D-501 Quarterly GT125V Battery Inspection	01/23/2019
		40614733	IT-72, Service Water Valves	06/10/2019
		40616169	D-501 Annual GT125V Battery Inspection	05/22/2019
		40630621	IT-72, Service Water Valves	08/20/2019
		40643260-01	D-501 Quarterly GT125V Battery Inspection	10/23/2019
		40746007	W-13A1 Troubleshoot Fan Not Starting	03/12/2021
		40752947-05	1RPI/Engineering CHAR Data Evaluation	04/18/2022
		40766773	HX-038A Inspect and Maintain AC Unit	05/16/2022
		40767675	W-013A1-M Perform MCE Test	08/25/2022
		40767676	AC Induction Motor MCE Testing Procedure	08/25/2022

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		40770266	Perform UT Thickness Exam in Accordance with NDE-104 for License Renewal Program	03/27/2021
		40775544-01	F-222/Perform Internal Inspection of Strainer	02/15/2022
		40785442	HX-038A3/A4 Operations PMT/RTS	01/31/2022
		40795162	1 RE-229/229B Calibration	06/28/2022
		40796864-01	T-073 Open and Inspect Accumulator Tank	08/08/2022
		40800611-01	F-215/Perform Internal Inspection of Strainer	08/24/2022
		40801515	2-OS-00004-DV Overhaul to Replace Disc Rings and Seals	04/10/2023
		40813762-01	2RE-229 Not Going to Fail EX with No Flow	02/21/2022
		40846323	G-05 Gas Turbine Generator Load Testing	05/26/2023
		40856206	W-013A1 Inspect Fan and Lube Bearings	08/28/2023
		40876035	HPIP 7.51.8 - Quarterly Functional Test of RMS	01/30/2024
		40878262-01	F-222/Perform Internal Inspection of Strainer	02/13/2024
		40884372-01	HPIP 7.51.10 Functional Test of the Radiation Monitoring System	03/24/2024
		40887679-01	2-PT-MS-003 U2 Crossover Steam Dump Test	01/11/2024
		40964815	HPIP 7.51 Monthly RMS Operational Test HPIP 7.51	04/07/2024