



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

December 11, 2019

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

SUBJECT: POINT BEACH NUCLEAR PLANT – TRIENNIAL FIRE PROTECTION  
INSPECTION REPORT 05000266/2019012 AND 05000301/2019012

Dear Mr. Craven:

On November 7, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Point Beach Nuclear Plant and discussed the results of this inspection with Mr. James Wilson 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/

Robert C. Daley, 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 Robert Craven from Robert C. Daley dated December 11, 2019.

SUBJECT: POINT BEACH NUCLEAR PLANT – TRIENNIAL FIRE PROTECTION  
INSPECTION REPORT 05000266/2019012 AND 05000301/2019012

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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: 05000266/2019012 and 05000301/2019012

Enterprise Identifier: I-2019-012-0024

Licensee: NextEra Energy Point Beach, LLC

Facility: Point Beach Nuclear Plant

Location: Two Rivers, WI

Inspection Dates: October 7, 2019 to November 7, 2019

Inspectors: J. Benjamin, Senior Reactor Inspector  
G. Hausman, Senior Reactor Inspector  
J. Robbins, Reactor Inspector

Approved By: Robert C. Daley, 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 fire protection 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**

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

### 71111.05XT - Fire Protection - NFPA 805

#### Fire Protection Inspection Requirements (IP Section 02.01a) (4 Samples)

- (1) Unit 1, Control Room (Abandonment)  
Fire Compartment 326GRP, Fire Area A31  
(Fire Zones 326, 328, 329, 330, 331)  
  
Analyzed Circuits: (Include if applicable)
  - 1(2)P-023A, Reactor Water Makeup Pump
- (2) Unit 1, North Office in Computer Room  
Fire Compartment 333GRP, Fire Area A32  
(Fire Zones 333, 334, 335, 336)  
  
Analyzed Circuits: (Include if applicable)
  - 1SI-00825A, Reactor Water Storage Tank to Safety Injection Suction Motor Operated Valve
- (3) Monitor Tank Room  
Fire Compartment 187GRP, Fire Area A01-B  
(Fire Zones 187, 196)  
  
Analyzed Circuits: (Include if applicable)
  - 1(2)RC-00430, Pressurizer Power Operated Relief Valve
- (4) Unit 2, Turbine Building General Area  
Fire Compartment 583GRP, Fire Area A01-E  
(Fire Zones 218, 222, 223, 224, 542, 547, 583, 584, 587, 588)  
  
Analyzed Circuits: (Include if applicable)
  - 1CV-00110B, Boric Acid Blender Outlet Flow Control Solenoid

B.5.b Inspection Activities (IP Section 02.03) (2 Samples)

- (1) Make-Up to Condensate Storage Tank (CST)
- (2) Portable Sprays

**INSPECTION RESULTS**

No findings were identified.

**EXIT MEETINGS AND DEBRIEFS**

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

- On November 7, 2019, the inspectors presented the triennial fire protection inspection results to Mr. James Wilson and other members of the licensee staff.

## DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.05XT	Calculations	027094-CALC-01	Water Supply and Suppression System Hydraulic Analysis - Fire Protection Water Supply System	3
		027094-CALC-02	Water Based Fire Suppression System Supply Calculations	3
	Corrective Action Documents	AR 02223092	0-PT-FP-005 Unsatisfactory Results	12/21/2017
		AR 02328459	NFPA 805 - Modeling Error Found in SI Reset Logic	09/19/2019
	Corrective Action Documents Resulting from Inspection	AR 02331103	2019 TFP NRC Observation on Last Man Standing	10/10/2019
		AR 02333470	2019 FPTI - AOP-40A Documentation Concerns	10/29/2019
		AR 02334360	2019 TFP - 2NI-00032 Cable Logics Missing Cables	11/05/2019
		PCR 02331216	Recommend Revising EDMG-2	10/14/2019
	Drawings	165130	Reactor Coolant System	1
		290587	Fire Protection Plan for Turbine Building, Aux Building, and Containment Elevation 26' 0"	07/01/1992
		290590	Fire Protection Plan for Turbine Building, Aux Building, and Containment Elevation 44' 0"	07/01/1992
		290600	Fire Protection Plan for Turbine Building, Aux Building, and Containment Elevation 66' 0"	07/01/1992
		R2168-001-187GRP, Attachment 3	Ignition Source Sketch, Monitor Tank Room Fire Compartment 187GRP	4
		R2168-001-333GRP, Attachment 3	Ignition Source Sketch, North Office in Computer Room, Fire Compartment 333GRP	3
	Engineering Changes	EC 260347	120V Vital Cable Short Circuit Protection for Unit 1 and 2	0
		EC 285584	NFPA 805 – 120VAC Cable Protection and 125VDC Fuse Coordination	17
		EC 286252	480VAC Cable Protection	20
	Engineering Evaluations	FPPDD	Fire Protection Program Design Document	2
		FPTE 002	Technical Evaluation of Inadvertent Suppression Actuation at Point Beach Nuclear Plant	2
		FPTE 003	Technical Evaluation of Emergency Lighting Capability at Point Beach Nuclear Plant,	3
		FPTE 004	Technical Evaluation of Fire Damper Tests at Point Beach	1

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Nuclear Plant	
		FPTE 005	Technical Evaluation for Appendix R Hot Shutdown Components Out-of-Service	3
		FPTE 2013-002	Inventory and Pressure Control Calculations	0
		FPTE 2015-003	Evaluation of Selective Coordination and Cable Protection for NFPA 805	1
		FPTE 2016-001	Radioactive Release Review	12/20/2016
		FPTE 2016-003	NFPA 805 Nuclear Safety Capability Assessment	0
		FPTE 2016-005	NFPA 805 Recovery Action Feasibility Evaluation	2
		FPTE 2016-007	NFPA 805 Monitoring Program Phase 1: Scoping Equipment and Programmatic Elements	0
		FPTE 2016-027	PBNP Detailed Fire Modeling Report - Fire Compartment 333GRP North Office in Computer Room – EL 60' - 0"	1
		FPTE 2016-050	NP 1.9.9 Transient Combustible Control	2
		PBN-BFJR-16-070	Point Beach Nuclear Plant Fire Risk Evaluations dated December 2016	0
		PRA 8.18	Fire PRA Quantification Notebook	1
		SL-009526	B.5.b Phases 2 & 3 Report, July 2008	0
	Fire Plans	PFP-2-TB8	Pre-Fire Plan Unit 2 Turbine Building Elevation 8 FT	1
	Miscellaneous	EDMG-2	Loss of Large Areas of The Plant Due to Fire or Explosion	14
		EDMG-1	PBNP Emergency Management Guideline	5
		Equipment Data Base Plant Nomenclature Manual, Section 1.7	Administrative and Technical, Abbreviations and Acronyms	5
		F-2016001	Ansul Fire Extinguisher and Parts Catalog	2016
		F-7602	ANSUL Portable, Wheeled Units and Pre-Engineered Systems Hydrostatic Test Instructions	12/20/2012
		ML070590730	Point Beach, Units 1 and 2, Response Providing Information Regarding Implementation Details for the Phase 2 and 3 Mitigation Strategies	02/27/2007
		ML081340110	TI 2515/171, Verification of Site-Specific Implementation of B.5.b Phase 2 & 3 Mitigating Strategies	1



Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		ML090080533	IR 05000266-08-008, 05000301-08-008, on 12/15/2008 - 12/18/2008, Point Beach Nuclear Plant, Units 1 and 2, TI 2515/171 Verification of Site-Specific Implementation of B.5.b, Phase 2 and 3 Mitigating Strategies	01/06/2009
		NFPA 805	Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition	02/09/2001
		NP 1.9.14	Fire Protection Plan	22
		NPL 2018-0056	Letter of Agreement - Two Creeks Volunteer Fire Department	11/27/2018
		NPL 2018-0057	Office of the City Manager First Responder - Mishicot Area Ambulance Second Responder - City of Two Rivers Ambulance	11/28/2018
		NPL 2018-0060	Letter of Agreement - Mishicot Area Ambulance Service	11/29/2018
		NPM 2019-0077	MPEP Minutes Focusing on Scoping Report	05/22/2019
		PBN LOC 18A 007S	AOP-40 Fire Response Series Implementation	0
		PBN LP 1275	Lesson Plan: Control Room Inaccessibility	18
		R2092-001-002	Fire Protection Code Conformance Review (June 2013)	1
		TRM	Technical Requirements Manual	122
		VTM 00147A1, Book 2	ANSUL Dry Chemical Piped Systems	44
		WCAP-13644-000	Design Bases Document for the Wisconsin Electric Point Beach Nuclear Plant Chemical and Volume Control System	0
	Procedures	0-FP-FP-003	Electrical Motor-Driven Fire Pump Functional Test	10
		0-PT-FP-002	Diesel Engine-Driven Fire Pump Functional Test	27
		0-PT-FP-004	Annual Fire Pump Capacity Test	20
		0-PT-FP-013	Quarterly Operations B.5.B Fire Equipment Inventory Report	11
		AOP-40	Response to Fire	4
		AOP-40A	Control Room Abandonment	4
		CMP 2.5.2.2	Setup Parameters for Category 2 Air Operated Valves	7
		FP-AA-104-1001	Fire Protection Performance and Trending	4
		FP-AA-104-1004	Control of Combustible and Ignition Sources	2

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		FP-AA-104-1006	Implementation of the NFPA 805 Monitoring Program	1
		FPTE 007	Technical Evaluation of PBNP Point-to-Point Portable Radio Communications for a Fire Event	3
		MI 28.3	Fire Door Maintenance and Repair	9
		NP 1.9.14	Fire Protection Plan	22
		NP 1.9.9	Transient Combustible Control	36
		NP 7.7.13	Fire Protection Engineering and Technical Evaluations	11
		OI 82	Communication System Operation	17
		OM 3.27	Control of Fire Protection and NFPA 805 Equipment	71
		OM 4.3.8	Control of Time Critical and Time Sensitive Operator Actions	14 &16
		OP-AA-107	Extensive Damage Management Program	13
		OP-AA-109	Control of Time Critical Operator Actions and Time Sensitive Actions,	4
		PC 73 Part 2	Monthly Surveillance of Fire Hose Stations	27
		PC 73 Part 3	Service Testing of Fire Hose and Fire Hose Stations	23
		PC 75 Part 3	Smoke Heat Ventilation Systems Surveillance Test	15
		PC 77 Part 5	Automatic Wet-Pipe Protection System Alarm Verification Test	20
		RF 70	Fire Hose and Fire Station Service Test Unit 1	10
		RMP 9094	Diesel Fire Pump Battery Surveillance	35
		TS 76	Quarterly Automatic Sprinkler and Water Spray System Surveillance Test	27
	Work Orders	40409709	Perform O-PT-FP-013 Operations B.5.B Fire 40409709 01 Equipment Inventory Report	06/22/2016
		40437105	Perform PC-21.6 B.5.B Miscellaneous and Flex Checks	09/15/2016
		40497945	0-PT-FP-005 Underground Fire Main Test	08/30/2017
		40569158	0-PT-FP-005 Underground Fire Main Test	08/16/2018
		40620525	0-PT-FP-008 Service Testing of Fire Hoses and Hose Stations	07/26/2019
		40634580	0-PT-FP-014 Portable Diesel Fire Pump Functional Test X-935	09/25/2019
		40635666	PC-73.8 Fire Hose Test	09/25/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		40649545	PC 76 Part 4, Annual Maintenance Inspection of Nitrogen Cylinder-Operated Wheeled Fire Extinguishers	09/10/2019