



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

August 27, 2019

Mr. Scott Sharp  
Site Vice President  
Prairie Island Nuclear Generating Plant  
Northern States Power Company, Minnesota  
1717 Wakonade Drive East  
Welch, MN 55089-9642

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT – TRIENNIAL FIRE  
PROTECTION INSPECTION REPORT 05000282/2019012 AND  
05000306/2019012

Dear Mr. Sharp:

On July 25, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Prairie Island Nuclear Generating Plant and discussed the results of this inspection with Ms. Dominique Wilson, Director of Site Performance Operation Support, and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspectors did not identify any finding or violation of more than minor significance.

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/**

Robert C. Daley, Chief  
Engineering Branch 3  
Division of Reactor Safety

Docket Nos. 05000282 and 05000306  
License Nos. DPR-42 and DPR-60

Enclosure:  
As stated

cc: Distribution via LISTSERV®

Letter to Scott Sharp from Robert C. Daley dated August 27, 2019.

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PROTECTION INSPECTION REPORT 05000282/2019012 AND  
05000306/2019012

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Numbers: 05000282 and 05000306

License Numbers: DPR-42 and DPR-60

Report Numbers: 05000282/2019012 and 05000306/2019012

Enterprise Identifier: I-2019-012-0020

Licensee: Xcel Energy

Facility: Prairie Island Nuclear Generating Plant

Location: Welch, Minnesota

Inspection Dates: June 24, 2019 to July 25, 2019

Inspectors: A. Dahbur, Senior Reactor Inspector  
M. Domke, Reactor Inspector  
D. Szwarc, Senior 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 Prairie Island Nuclear Generating 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) (3 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas and/or fire zones, including analyzed electrical circuits:

- (1) 18 Unit 2 Relay and Cable Spreading Room;
- (2) 32 "B" Train Hot Shutdown Panel; and
- (3) 59 Auxiliary Building Mezzanine Level.

#### Analyzed Circuits:

- CV-31084, Steam Generator Power Operated Relief Valve; and
- X-HIAW 48-22, 12 Diesel Cooling Water Pump.

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

The inspectors evaluated the following B.5.b Mitigating Strategies:

- (1) Attachment H - Containment Flooding; and
- (2) Attachment K - Recovery of D1/D2 Cooling.

## **INSPECTION RESULTS**

No findings were identified.

## **EXIT MEETINGS AND DEBRIEFS**

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

- On July 25, 2019, the inspectors presented the triennial fire protection inspection results to Ms. Dominique Wilson, Director of Site Performance Operation Support, and other members of the licensee staff.

## DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.05XT	Calculations	P2117-2400-03-00	Calculation for NFPA 805 Safe Shutdown Analysis - Decay Heat Removal	0
	Corrective Action Documents	01515933	Missing Fire Barrier Between FA 15 And FA 59	03/16/2016
		1536541	Unacceptable Thinning Found During Planned MIC Inspection	10/03/2016
		500001538543	Issues While Performing SP 1197	10/19/2016
		501000016344	Sprinkler Heads Need Cleaning	08/30/2018
		501000016839	PENF 19 Concrete Needs Repair	09/13/2018
		501000020789	NOS ID: Seal Inspection Justification	12/07/2018
		501000028647	B5b Cell Phones Not Tested	06/18/2019
	Corrective Action Documents Resulting from Inspection	501000028783	CAP Closed to Lower Severity Level CAP	06/20/2019
		501000028976	EDMG Cell Phones	06/26/2019
		501000029050	EDMG-1 And PINGP 1385 Not At Gate House	06/27/2019
		501000029210	B.5.b Enhancement	06/28/2019
		501000029213	Duplicate Calculations Issued	07/02/2019
		501000029319	Incorrect Reference In Engineering Change	07/08/2019
		501000029377	F5 Appendix D Unit 1/Unit 2 Error	07/0/2019
		501000029377	F5 Appendix D U1/U2 Error	07/09/2019
		501000029388	PRA Notebook Editorial Error	07/10/2019
		501000029467	Error in Compensatory Measure Evaluation	07/12/2019
		501000029680	Fire PRA Model Credit For Incipient Detectors	07/17/2019
	Drawings	97FP02-2	(97FP02) AFW Pump Room Fire Protection Piping System WPS-10	0
		NE-40009 Sheet 70	12 Diesel Cooling Water Pump	78
		NE-40009 Sheet 71	12 Diesel Cooling Water Pump	77
		NF-40022-1	Circuit Diagram - 4KV And 480 Safeguard Buses Unit 1	81
		NF-40322-3	Logic Diagram - Main Steam System Unit 1	76
	Engineering Changes	21572	NFPA 805 - PINGP Station Fire Damper -NFPA 805 Transition Activity -LAR L-PI-12-089, Attachment S, Table S-	02/12/2015

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			2, Item 16	
		23914	NFPA 805 - Incipient Detection Project, LAR L-PI-14-045, Table S-2, Item 5, 8	1
		EC 25100	NFPA 805 - Unit 1 And 2 Auxiliary Feedwater Pump Room Separation	12/02/2016
		EC 25124	NFPA 805 12 And 22 DDCLP Modification	0
	Engineering Evaluations	FPCE 18-008	Change Evaluation For H77.3	07/19/2018
		FPCE 18-010	Camera To Monitor 22 RCP Motor Lower Oil Reservoir Level	0
		FPCE 18-013	Clearance Order For Pinhole Leak On Pipe 6-FP-18	2
		FPEE 12-010	Access Control (FA15) To Auxiliary Building Mezzanine Level Unit 1 (FA59)	1
		FPEE-12-006	Fire Area 85 Boundaries And F5 Appendix K Barriers	3
		FPEE-14-003	Explosion Analysis For Compressed Gas Cylinders	12/18/2014
		FPEE-17-002	NFPA 805 LAR S-2 Compensatory Measures	0
		FPRA-PI-CF	Circuit Failure Mode Likelihood Analysis Notebook	04/13/2018
		FPRA-PI-MCA	Multi-Compartment Analysis Notebook	04/13/2018
		FPRA-PI-MSO	Fire Multiple Spurious Operation Notebook	04/13/2019
		FPRA-PI-RRA	Relay Room Analysis Notebook	5.3
		V.SMN.15.007	Relay Room Incipient Detection Modification Sensitivity	03/10/2015
	Miscellaneous	FL-BSE-100-003L	Introduction to Nuclear Security	0
		PINGP 1385	Emergency Response Organization Activation	19
		V.SMN.19.006	PINGP [Prairie Island Nuclear Generating Plant] NFPA [National Fire Protection Association] 805 Monitoring Program Risk Target Values	0
	Operability Evaluations	F5 APP B	Control Room Evacuation (Fire)	65
	Procedures	EDMG-2	Guideline for Damage Mitigation Strategies	12
		F5 Appendix A	Detection Zones and Fire Areas	41
		F5 APPENDIX D	Impact of Fire Outside Control/Relay Room	42
		F5 Appendix D	Impact of Fire Outside Control/Relay Room	41
		F5 Appendix F	Fire Hazards Analysis	36
		F5 Appendix K	Fire Protection Systems Functional Requirements	29
		FP-PE-PRA-02	PRA Guideline for Model Maintenance and Update	16

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		H77	Fire Protection Program	2
		H77.1	Fire Protection Program NFPA 805 Chapter 3 Compliance Summary (NEI 04-02 Table B-1)	2
		H77.2	Fire Protection Program NSCA Methodology Compliance (NEI 04-02 Table B-2)	0
		H77.3	Fire Area Assessments	0
	Work Orders	700010880	SP 1192 Safeguards Electrical And Mechanical Penetrations Surveillance Inspection	10/15/2018
		700025089	SP 1197 Annual Header/Drains Flush Fire Protection System	06/18/2018
		700028970	SP 1275 18 Month Safe Shutdown Fire Barrier Inspection	08/01/2018
		700030214	SP 1196 Fire Protection Safety Related Sprinkler System Test	08/30/2018
		700032679	TP 1423 Portable Diesel Fire Pump Test	09/17/2018
		700041404	SP 1197 Annual Header/Drains Flush Fire Protection System	07/13/2018