



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

March 4, 2013

Mr. Jim Lynch  
Site Vice President  
Prairie Island Nuclear Generating Plant  
Northern States Power Company, Minnesota  
1717 Wakonade Drive  
East Welch, MN 55089

SUBJECT: ANNUAL ASSESSMENT LETTER FOR PRAIRIE ISLAND NUCLEAR  
GENERATING PLANT, UNITS 1 AND 2 (REPORT 05000282/2012001 AND  
05000306/2012001)

Dear Mr. Lynch:

On February 12, 2013, the Nuclear Regulatory Commission (NRC) completed its end-of-cycle performance review of Prairie Island Nuclear Generating Plant, Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from January 1, 2012 through December 31, 2012. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined that overall, Prairie Island Unit 1 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance of Unit 1 during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct ROP baseline inspections for Unit 1.

Although plant performance was within the Licensee Response Column for Unit 1, the NRC has not yet finalized the significance of apparent violation 05000282/2012504-01, "Degraded Emergency Action Level Scheme." The final safety significance determination may affect the NRC's assessment of plant performance and the enclosed inspection plan.

The NRC determined the performance of Prairie Island Unit 2 during the most recent quarter was within the Regulatory Response Column of the NRC's ROP Action Matrix because of one low-to-moderate safety significant (White) PI for Emergency Alternating Current Power Systems in the Mitigating Systems Performance Index. Therefore, in addition to the ROP baseline inspection, the NRC plans to conduct a supplemental inspection to address the performance issues associated with this PI. The inspection will be conducted in accordance with Inspection Procedure 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area."

In the mid-cycle assessment letter dated September 4, 2012 (ML12249A425), the NRC opened a substantive cross-cutting issue (SCCI) associated with the aspect of Conservative Assumptions (H.1 (b)). This assessment letter stated that the SCCI will remain open until the number of findings with a cross-cutting aspect of H.1 (b) is reduced, the corrective actions taken to mitigate the cross-cutting theme prove effective, and sustained performance improvement is observed in the human performance area. During the current assessment period, the number of findings with the cross-cutting aspect H.1(b) have been reduced to less than four. To address the SCCI, your staff performed a root cause evaluation and developed corrective actions. However, as of the end of the assessment period, not all of the proposed corrective actions were completed and no effectiveness review of those completed corrective actions has been performed. Therefore, the SCCI will remain open until the corrective actions taken to mitigate the cross-cutting theme prove effective and sustained performance improvement is observed in the human performance area. This is the second consecutive assessment letter documenting this SCCI. The NRC will continue to monitor your staff's effort and progress in addressing the SCCI by evaluating your corrective action program, the root cause evaluation for the SCCI, and performance improvement initiatives to adequately assess if positive results are obtained.

The enclosed inspection plan lists the inspections scheduled through December 31, 2014. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last twelve months of the inspection plan are tentative and may be revised at the mid-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security related inspections, which will be sent via separate, non-publicly available correspondence.

We also plan on conducting Inspection Procedure 71003, "Post-Approval Site Inspection for License Renewal" at your facility.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure, will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

J. Lynch

-3-

Please contact Kenneth Riemer at 630-829-9628 with any questions you may have regarding this letter.

Sincerely,

***/RA/***

Gary L. Shear, Acting Director  
Division of Reactor Projects

Docket Nos. 50-282, 50-306 and 72-010  
License Nos. DPR-42, DPR-60 and SNM-2506

Enclosure: Prairie Island Nuclear Generating Plant Inspection/Activity Plan

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J. Lynch

-3-

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Sincerely,

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**Prairie Island**  
**Inspection / Activity Plan**  
**03/01/2013 - 12/31/2014**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
			<b>BI CDBI - COMPONENT DESIGN BASIS INSPECTION</b>		<b>6</b>
1, 2	03/18/2013	04/19/2013	IP 7111121	Component Design Bases Inspection	
			<b>ISFSI - ISFSI INSPECTION - SCHEDULE DEPENDENT</b>		<b>1</b>
1	03/04/2013	05/03/2013	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			<b>TI 182 - TI 182 BURIED PIPING PHASE 2</b>		<b>1</b>
1, 2	02/25/2013	03/01/2013	IP 2515/182	Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>2</b>
1	02/25/2013	03/01/2013	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	05/06/2013	05/10/2013	IP 71124.07	Radiological Environmental Monitoring Program	
			<b>RENEWAL - LICENSE RENEWAL INSPECTION 71003-PHASE 2</b>		<b>2</b>
1	05/20/2013	06/14/2013	IP 71003	Post-Approval Site Inspection for License Renewal	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	06/10/2013	06/14/2013	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>BI EPR - EP ROUTINE INSPECTION / PI VERIFICATION</b>		<b>2</b>
1	07/29/2013	08/02/2013	IP 7111402	Alert and Notification System Testing	
1	07/29/2013	08/02/2013	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1	07/29/2013	08/02/2013	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	07/29/2013	08/02/2013	IP 71151	Performance Indicator Verification	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	07/22/2013	07/26/2013	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	07/22/2013	07/26/2013	IP 71124.04	Occupational Dose Assessment	
			<b>BI OLRQ - BIENNIAL REQUAL PROGRAM INSPECTION</b>		<b>2</b>
1, 2	09/09/2013	09/13/2013	IP 7111111B	Licensed Operator Requalification Program	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	09/16/2013	09/20/2013	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	09/16/2013	09/20/2013	IP 71151-BI01	Reactor Coolant System Activity	
1	09/16/2013	09/20/2013	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1	09/16/2013	09/20/2013	IP 71151-PR01	RETS/ODCM Radiological Effluent	
			<b>RENEWAL - LICENSE RENEWAL UNIT 2- 71003-PHASE 2</b>		<b>1</b>
2	09/23/2013	10/18/2013	IP 71003	Post-Approval Site Inspection for License Renewal	

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

**Prairie Island**  
**Inspection / Activity Plan**  
**03/01/2013 - 12/31/2014**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	10/07/2013	10/11/2013	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
			<b>BI ISI - INSERVICE INSPECTION UNIT 2</b>		<b>1</b>
2	10/28/2013	11/29/2013	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	11/04/2013	11/08/2013	IP 71124.02	Occupational ALARA Planning and Controls	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	03/03/2014	03/07/2014	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	03/03/2014	03/07/2014	IP 71124.04	Occupational Dose Assessment	
1	03/03/2014	03/07/2014	IP 71151	Performance Indicator Verification	
			<b>BI MODS - MODIFICATION/50.59 INSPECTION</b>		<b>3</b>
1, 2	04/14/2014	05/02/2014	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	04/21/2014	04/25/2014	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>BI EPX - EP EXERCISE INSPECTION / PI VERIFICATION</b>		<b>2</b>
1	07/28/2014	08/01/2014	IP 71151	Performance Indicator Verification	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	05/19/2014	05/23/2014	IP 71124.02	Occupational ALARA Planning and Controls	
			<b>BI ENG - BIENNIAL PI&amp;R INSPECTION</b>		<b>4</b>
1	06/09/2014	06/27/2014	IP 71152B	Problem Identification and Resolution	
			<b>OL PREP - INITIAL EXAM FOR 08/2014</b>		<b>3</b>
1	07/07/2014	07/11/2014	W90310	OL - INITIAL EXAM - 2014 MAY-JAN - PRAI	
			<b>RENEWAL - LICENSE RENEWAL INSPECTION U2</b>		<b>9</b>
1, 2	07/14/2014	08/01/2014	IP 71003	Post-Approval Site Inspection for License Renewal	
			<b>OL EXAM - PRAIRIE ISLAND INITIAL EXAM - 08/2014</b>		<b>3</b>
1	08/04/2014	08/15/2014	W90310	OL - INITIAL EXAM - 2014 MAY-JAN - PRAI	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	08/11/2014	08/15/2014	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	09/15/2014	09/19/2014	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
			<b>BI ISI - INSERVICE INSPECTION UNIT 1</b>		<b>1</b>
2	09/15/2014	11/01/2014	IP 7111108P	Inservice Inspection Activities - PWR	

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