



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

September 2, 2014

Ms. Karen Fili  
Site Vice President  
Monticello Nuclear Generating Plant  
Northern States Power Company, Minnesota  
2807 West County Road 75  
Monticello, MN 55362-9637

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR MONTICELLO NUCLEAR  
GENERATING PLANT**

Dear Ms. Fili:

On August 6, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Monticello Nuclear Generating Plant. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2013 through June 30, 2014. 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 the performance at Monticello Nuclear Generating Plant during the most recent quarter was within the Degraded Cornerstone Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because of one Yellow finding, with substantial safety significance, in the Mitigating Systems Cornerstone. The finding involved the failure to maintain a procedure addressing all of the effects of an external flooding scenario on the plant

As described in our Assessment Followup-Letter issued on August 28, 2013 (ADAMS Accession No. ML 13240A435), Monticello Nuclear Generating Plant transitioned from the Licensee Response column to the Degraded Cornerstone Column of the ROP Action Matrix in the second quarter of 2013 due to the Yellow finding related to the failure to maintain a procedure addressing all of the effects of an external flooding scenario on the plant. This failure resulted in the site not being able to support the timely implementation of flood protection activities within the 12-day timeframe credited in the design basis as stated in the updated safety analysis report. This finding will remain open until the successful completion of Inspection Procedure 95002, "Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area."

On July 18, 2014, your staff notified the NRC of your readiness for it to conduct a supplemental inspection to review the actions taken to address the performance issues. Therefore, in addition to ROP baseline inspections, the NRC plans to conduct a supplemental inspection in accordance with Inspection Procedure 95002, "Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area," to review the actions taken to address the performance issues. The NRC has not yet scheduled this inspection.

The NRC identifies substantive cross-cutting issues (SCCIs) to communicate a concern with the licensee's performance in a cross-cutting area and to encourage the licensee to take appropriate actions before more significant performance issues emerge. The NRC identified a cross-cutting theme in the Human Performance, Conservative Bias aspect (H.14). Specifically, five inspection findings for the current 12-month assessment period were a cross-cutting aspect of H.14, "Individuals use decision-making practices that emphasize prudent choices over those that are simply allowable." The NRC determined that an SCCI exists because the NRC has a concern with your staff's scope of effort and progress addressing the cross-cutting theme associated with Human Performance, Conservative Bias (H.14). Specifically, the NRC noted that your staff missed an early opportunity to identify this SCCI and, therefore failed to recognize that the SCCI affected overall plant performance. As a result, corrective actions to address the SCCI were unnecessarily delayed resulting in continued, declining performance in this area.

In October 2013, after an adverse trend was identified in your corrective action program for three NRC-identified issues associated with this cross-cutting aspect, your staff determined that an apparent cause evaluation was necessary to address this issue. The apparent cause evaluation was subsequently cancelled and justifications were determined to be incorrect and delayed full understanding of the significance of the lack of conservative bias in decision making until April 2014, after another three NRC-identified findings with related H.14 aspects had been identified during the first quarter 2014. In total, six NRC-identified findings with H.14 aspects had been identified between February 2013 and April 2014. In May 2014, your staff completed a root cause evaluation which concluded that these issues reflected current organizational behavior and resulted from inadequate decision making and delayed corrective action from prior, similar issues. In particular, the root cause evaluation noted that the failure to take corrective actions in October 2013 was a result of underlying organizational behaviors. Given these circumstances and the recency of your additional actions, we cannot conclude that the corrective actions will be fully effective in addressing the cross-cutting theme.

This human performance SCCI will remain open until the number of findings with a cross-cutting aspect of H.14 is reduced, the corrective actions taken to mitigate the cross-cutting theme prove effective, and sustained performance improvement is observed in the H.14 aspect of the human performance area. The NRC will monitor your staff's effort and progress in addressing the SCCI by evaluating your corrective action program, any root cause evaluations for the SCCI, and performance improvement initiatives.

In its assessment letter dated March 4, 2014 (ML14063A307), the NRC opened an SCCI in human performance with the aspect of H.7, "the organization creates and maintains complete, accurate and up-to-date documentation" (formally referred to as H.2(c)). As stated in the letter, this SCCI will remain open until the number of findings with a cross-cutting theme in H.7 is reduced, the corrective actions taken to mitigate the cross-cutting theme prove effective, and sustained performance improvement is observed in the H.7 aspect of the human performance area.

To address the SCCI in H.7, your staff performed an apparent cause evaluation in July 2013 and a root cause evaluation in February 2014. These evaluations identified weaknesses in site leadership not enforcing quality work documents for procedures that are being approved for use

in the plant. In response, your staff developed performance improvement plans for each department, improved supervisory field oversight, and implemented additional training for supervisors. The NRC noted that the number of findings with a cross-cutting aspect of H.7 remains above the threshold for assigning a cross-cutting aspect and that those corrective actions taken have not yet proven effective in substantially mitigating the cross-cutting theme even though a reasonable duration of time has passed. Therefore, this SCCI will remain open until the closure criteria stated above are met. Because this letter is the second consecutive assessment letter documenting an SCCI with the same cross-cutting aspect, the NRC requests your staff to provide a written response documenting your planned actions to address this SCCI. The NRC will continue to monitor your staff's effort and progress in addressing the SCCI by evaluating your corrective action program, any evaluations for the SCCI, and performance improvement initiatives.

As a result of the Safety Culture Common Language Initiative, the terminology and coding of cross-cutting aspects were revised. All cross-cutting aspects identified during inspections conducted in calendar year 2014 reflect this revision to Inspection Manual Chapter (IMC) 0310. Cross-cutting aspects identified in 2013 using the 2013 terminology were converted to the latest revision in accordance with the cross-reference in IMC 0310 during the mid-cycle assessment review and evaluated for cross-cutting themes and potential substantive cross-cutting issues in accordance with IMC 0305.

The enclosed inspection plan lists the inspections scheduled through December 31, 2015. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last 9-months of the inspection plan are tentative and may be revised at the end-of-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.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," which requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," which requires licensees to have a reliable means of remotely monitoring wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. This audit includes an onsite component in order for the NRC to evaluate licensee plans for complying with the Orders, as described in site-specific submittals, and to receive and review information relative to associated open items. This onsite activity will occur in the months prior to a declaration of compliance for the first unit at each site, and will aid staff in development of an ultimate Safety Evaluation for the site. The date for the onsite component at your site is being coordinated with your staff. A site-specific audit plan for the visit will be provided in advance to allow sufficient time for preparations.

K. Fili

-4-

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) 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). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

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

Sincerely,

*/RA/*

Cynthia D. Pederson  
Regional Administrator

Docket Nos. 50-263  
License Nos. DPR-22

Enclosure:  
Monticello Nuclear Generating Plant  
Inspection/Activity Plan

cc w/encl: Distribution via LISTSERV®

K. Fili

-4-

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) 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). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

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

Sincerely,

/RA/

Cynthia D. Pederson  
Regional Administrator

Docket Nos. 50-263  
License Nos. DPR-22

Enclosure:  
Monticello Nuclear Generating Plant  
Inspection/Activity Plan

cc w/encl: Distribution via LISTSERV®

DISTRIBUTION w/encl:

Anthony Bowers  
RidsNrrDorLpl3-1 Resource  
RidsNrrPMMonticello  
RidsNrrDirslrib Resource  
Cynthia Pederson  
Darrell Roberts  
Steven Orth  
Allan Barker  
Carole Ariano  
Linda Linn  
DRPIII  
DRSIII  
Patricia Buckley  
Carmen Olteanu  
[ROPassessment.Resource@nrc.gov](mailto:ROPassessment.Resource@nrc.gov)

DOCUMENT NAME: Monticello 2014 MOC Letter

Publicly Available       Non-Publicly Available       Sensitive       Non-Sensitive

To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII			
NAME	JMancuso:mt	KRiemer	ABoland	CPederson
DATE	08/25/14	08/25/14	08/22/14	08/26/14

**OFFICIAL RECORD COPY**

**Monticello**  
**Inspection / Activity Plan**  
**09/01/2014 - 12/31/2015**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>ISFSI - PROGRAM REVIEW</b>		<b>2</b>
1	09/01/2014	10/31/2014	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			<b>PI&amp;R - BIENNIAL PI&amp;R INSPECTION</b>		<b>4</b>
1	09/22/2014	10/10/2014	IP 71152B	Problem Identification and Resolution	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	12/01/2014	12/06/2014	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>2</b>
1	12/15/2014	12/19/2014	IP 71124.02	Occupational ALARA Planning and Controls	
1	12/15/2014	12/19/2014	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	12/15/2014	12/19/2014	IP 71151-BI01		
1	12/15/2014	12/19/2014	IP 71151-OR01		
1	12/15/2014	12/19/2014	IP 71151-PR01		
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	01/12/2015	01/16/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	01/12/2015	01/16/2015	IP 71124.04	Occupational Dose Assessment	
			<b>BI ISI - ISI INSPECTION</b>		<b>1</b>
1	04/11/2015	05/11/2015	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	04/20/2015	04/24/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	04/20/2015	04/24/2015	IP 71124.02	Occupational ALARA Planning and Controls	
			<b>OL PREP - INIT EXAM/JUNE 2015</b>		<b>3</b>
1	05/11/2015	05/15/2015	W90331	OL - INITIAL EXAM - 2015 MAY-JUN - MONTICELLO	
			<b>OL EXAM - INIT EXAM/JUNE 2015</b>		<b>3</b>
1	06/01/2015	06/12/2015	W90331	OL - INITIAL EXAM - 2015 MAY-JUN - MONTICELLO	
			<b>BI ENG - COMPONENT DESIGN BASIS INSPECTION</b>		<b>6</b>
1	06/22/2015	07/24/2015	IP 7111121	Component Design Bases Inspection	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	08/10/2015	08/14/2015	IP 71124.07	Radiological Environmental Monitoring Program	
1	08/10/2015	08/14/2015	IP 71151-BI01		
1	08/10/2015	08/14/2015	IP 71151-OR01		
1	08/10/2015	08/14/2015	IP 71151-PR01		
			<b>BL EPR - EP ROUTINE INSPECTION / PI VERIFICATION</b>		<b>1</b>
1	08/17/2015	08/21/2015	IP 7111407	Exercise Evaluation - Hostile Action (HA) Event	

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

**Monticello**  
**Inspection / Activity Plan**  
**09/01/2014 - 12/31/2015**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
<b>BL EPX - EP EXERCISE / PI VERIFICATON</b>					
1	08/17/2015	08/21/2015	IP 7111407	Exercise Evaluation - Hostile Action (HA) Event	2
1	08/17/2015	08/21/2015	IP 7111408	Exercise Evaluation – Scenario Review	
1	08/17/2015	08/21/2015	IP 71151	Performance Indicator Verification	
<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>					
1	09/28/2015	10/02/2015	IP 71124.02	Occupational ALARA Planning and Controls	1
<b>BI OLRQ - BIENNIAL REQUAL PROGRAM INSPECTION</b>					
1	10/19/2015	10/23/2015	IP 7111111B	Licensed Operator Requalification Program	2

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