



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

September 27, 2017

Mr. Christopher Church
Site Vice President
Monticello Nuclear Generating Plant
Northern States Power Company, Minnesota
2807 West County Road 75
Monticello, MN 55362-9637

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT – BASELINE EMERGENCY
PREPAREDNESS BIENNIAL EXERCISE INSPECTION REPORT
05000263/2017502

Dear Mr. Church:

On August 31, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed a baseline emergency preparedness biennial exercise inspection at the Monticello Nuclear Generating Plant, and the NRC inspectors discussed the results of this inspection with Mr. C. Dieckmann and other members of your staff. The results of the 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 Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Kenneth Riemer, Acting Chief
Plant Support Branch
Division of Reactor Safety

Docket No. 50-263
License No. DPR-22

Enclosure:
IR 05000263/2017502

cc: Distribution via LISTSERV®

Letter to Christopher Church from Kenneth Riemer dated September 27, 2017

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-263
License No: DPR-22

Report No: 05000263/2017502

Licensee: Northern States Power Company

Facility: Monticello Nuclear Generating Plant

Location: Monticello, MN

Dates: August 28 – August 31, 2017

Inspectors: G. Hansen, Senior Emergency Preparedness Inspector
M. Garza, Emergency Preparedness Inspector
E. Fernandez, Reactor Inspector
J. Park, Reactor Inspector

Approved by: K. Riemer, Acting Chief
Plant Support Branch
Division of Reactor Safety

Enclosure

SUMMARY

IR 05000263/2017502; 08/28/2017 – 08/31/2017; Monticello Nuclear Generating Plant; Baseline Emergency Preparedness Biennial Exercise Inspection; Exercise Evaluation Scenario Review; Performance Indicator Verification.

This report covers a 1-week period of announced baseline inspection by four regional inspectors. The U.S. Nuclear Regulatory Commission's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 6, dated July 2016.

NRC-Identified and Self-Revealed Findings

Cornerstone: Emergency Preparedness

No findings were identified.

Licensee-Identified Violations

None

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation (71114.01)

.1 Exercise Evaluation

a. Inspection Scope

The inspectors reviewed the August 29, 2017, Biennial Emergency Preparedness Exercise's objectives and scenario to ensure that the exercise would acceptably test major elements of the licensee's Emergency Plan and to verify that the exercise's simulated problems provided an acceptable framework to support demonstration of the licensee's capability to implement its plan. The inspectors also reviewed records of other drills and exercises conducted from 2015 through 2017, to verify that those drills' scenarios were sufficiently different from the scenario used in the August 29, 2017, exercise.

The inspectors evaluated the licensee's exercise performance, focusing on the risk-significant activities of emergency classification, notification, and protective action decision making, implementation of accident mitigation strategies, and correction of past exercise weaknesses in the following emergency response facilities:

- Control Room Simulator;
- Technical Support Center;
- Operations Support Center; and
- Emergency Operations Facility.

The inspectors also assessed the licensee's recognition of abnormal plant conditions, transfer of responsibilities between facilities, internal communications, interfaces with offsite officials, readiness of emergency facilities and related equipment, and overall implementation of the licensee's Emergency Plan.

The inspectors attended post-exercise critiques in the control room simulator, technical support center, operations support center, and emergency operations facility to evaluate the licensee's initial self-assessment of its exercise performance. The inspectors later met with the licensee's lead exercise evaluators and managers to obtain the licensee's findings and assessments of its exercise participants' performances. These self-assessments were then compared with the inspectors' independent observations and assessments to assess the licensee's ability to adequately critique its exercise performance. Documents reviewed are listed in the Attachment to this report.

This exercise evaluation inspection constituted one sample as defined in Inspection Procedure (IP) 71114.01.

b. Findings

No findings were identified.

1EP8 Exercise Evaluation – Scenario Review (71114.08)

a. Inspection Scope

Prior to the inspection activity on-site, the inspectors conducted an in-office review of the exercise objectives and scenarios submitted to the U.S. Nuclear Regulatory Commission using IP 71114.08, “Exercise Evaluation - Scenario Review,” to determine if the exercise would test major elements of the Emergency Plan as required by Title 10 of the *Code of Federal Regulations*, Part 50.47(b)(14). Documents reviewed are listed in the Attachment to this report.

This review of the exercise objectives and scenario constituted one inspection sample as defined in IP 71114.08.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

Cornerstone: Emergency Preparedness

4OA1 Performance Indicator Verification (71151)

.1 Drill/Exercise Performance

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill/Exercise Performance (DEP) Performance Indicator (PI) for the third quarter of 2016 through the second quarter of 2017. To determine the accuracy of the DEP data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) document NEI 99-02, “Regulatory Assessment Performance Indicator Guideline,” Revision 7, was used. The inspectors reviewed the licensee’s records associated with the PI to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes, including procedural guidance on assessing opportunities for the PI, assessments of PI opportunities during pre-designated control room simulator training sessions, and performance during other drills. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one DEP PI verification inspection sample as defined in IP 71151.

b. Findings

No findings were identified.

.2 Emergency Response Organization Drill Participation

a. Inspection Scope

The inspectors sampled licensee submittals for the Emergency Response Organization (ERO) Drill Participation PI for the third quarter of 2016 through the second quarter of 2017. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, was used. The inspectors reviewed the licensee's records associated with the PI to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI, performance during the 2016 and 2017 drills, and revisions of the roster of personnel assigned to key ERO positions. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one ERO Drill Participation PI verification inspection sample as defined in IP 71151.

b. Findings

No findings were identified.

.3 Alert and Notification System

a. Inspection Scope

The inspectors sampled licensee submittals for the Alert and Notification System (ANS) PI for the third quarter of 2016 through the second quarter of 2017. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, was used. The inspectors reviewed the licensee's records associated with the PI to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI and results of periodic scheduled ANS operability tests. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one ANS PI verification inspection sample as defined in IP 71151.

b. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On August 31, 2017, the inspectors presented the biennial exercise inspection results to Mr. C. Dieckmann, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

.2 Public and Media Briefing

On September 1, 2017, the inspectors summarized the U.S. Nuclear Regulatory Commission's preliminary exercise inspection conclusions at a public and media briefing hosted by Department of Homeland Security/Federal Emergency Management Agency, Region V, Field Office staff, at the Wright County Emergency Operations Center, in Buffalo, Minnesota.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

C. Dieckmann, Plant Manager
A. Ward, Regulatory Affairs Manager
G. Foote, Performance Improvement Manager
D. Bosnic, Director Regulatory and Site Support
P. Beyers, Director Emergency Preparedness Nuclear (Corporate)
G. Holthaus, Acting Emergency Preparedness Manager
J. Callahan, Emergency Planning Manager
B. Carberry, Emergency Preparedness Manager (Prairie Island)
R. Loeffler, Senior Licensing Engineer
K. VanGrinsven, Senior Emergency Preparedness Coordinator
R. Braenne, Senior Emergency Preparedness Coordinator
N. Sisk, Senior Emergency Preparedness Coordinator

U.S. Nuclear Regulatory Commission

P. Zurawski, Senior Resident Inspector
T. Ospino, Acting Resident Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened, Closed, and Discussed

None

LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

1EP1 Exercise Evaluation (71114.01)

- E-PLAN; Emergency Plan; Revision 48
- A.2-001; Emergency Organization; Revision 55
- A.2-101; Classification of Emergencies; Revision 50
- A.2-102; Notification of Unusual Event; Revision 25
- A.2-103; Alert; Revision 24
- A.2-104; Site Area Emergency; Revision 24
- A.2-105; General Emergency; Revision 26
- A.2-106; Activation and Operation of the TSC; Revision 40
- A.2-108; Access Control during Emergencies; Revision 19
- A.2-201; On-Site Protective Action; Revision 20
- A.2-202; Off-Site Monitoring during an Emergency; Revision 12
- A.2-204; Off-Site Protective Action Recommendations; Revision 28
- A.2-205; Personnel Accountability; Revision 18
- A.2-206; Work Control during Emergencies; Revision 11
- A.2-208; Core Damage Assessment; Revision
- A.2-209; Responsibilities of the Radiological Emergency Coordinator; Revision 22
- A.2-213; Responsibilities of the Emergency Director; Revision 28
- A.2-301; Emergency Evacuation; Revision 20
- A.2-401; Emergency Exposure Control; Revision 10
- A.2-402; On-Site Radiological Monitoring; Revision 8
- A.2-406; Off-Site Dose Projection; Revision 25
- A.2-501; Communications during an Emergency; Revision 26
- A.2-801; Responsibilities of the Emergency Manager; Revision 22
- A.2-802; Activation and Operation of EOF; Revision 21
- A.2-807; Off-Site Dose Assessment and Protective Action Recommendations; Revision 26
- FP-PA-ARP-01; CAP Action Request Process; Revision 51
- Two-Year List of Drill and Exercise Condition Reports; Dated August 2015 – August 2017

Two Years of Drill and Exercise Timelines; Dated August 2015 – August 2017
AR 01501031; Negative Trends Detected Related to EP Drill Package Quality
AR 01525322; Numerous Discrepancies during EP Drill Involving Repair Team Briefings
AR 01525366; Evaluate IT Support to Each Emergency Response Facility
AR 01525376; RP Resources Challenged During EP Drill
AR 01525394; Transfer of Responsibilities from TSC to EOF Delayed More Than
30 Minutes
AR 01525532; During June Drill Station Priorities Misaligned
AR 01532584; EP Drill – Training and Proficiency Concerns from ERO Members
AR 01532657; EP Drill – Communicator Expectations Unclear
AR 01541446; Less Than Adequate Dose Assessment Guidance
AR List of Issues Identified During August 29, 2017 EP Exercise; Dated August 31, 2017

1EP8 Exercise Evaluation – Scenario Review (71114.08)

Monticello Nuclear Generating Plant 2017 Emergency Plan Exercise 60 Day Submittal;
Dated June 27, 2017

4OA1 Performance Indicator Verification (71151)

ERO Drill Participation Records; Third Quarter of 2016 – Second Quarter of 2017
DEP Opportunities Records; Third Quarter of 2016 – Second Quarter of 2017
ANS Reliability Records; Third Quarter of 2016 – Second Quarter of 2017

LIST OF ACRONYMS USED

ANS	Alert and Notification System
DEP	Drill and Exercise Performance
ERO	Emergency Response Organization
IP	Inspection Procedure
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
PI	Performance Indicator