



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

June 12, 2017

Mr. Joel P. Gebbie
Senior VP and Chief Nuclear Officer
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106

SUBJECT: DONALD C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2 –
BASELINE EMERGENCY PREPAREDNESS BIENNIAL EXERCISE
INSPECTION REPORT 05000315/2017502; 05000316/2017502

Dear Mr. Gebbie:

On May 25, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Donald C. Cook Nuclear Power Plant, Units 1 and 2, and the NRC inspectors discussed the results of this inspection with you 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."

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

/RA/

Kenneth Riemer, Chief
Plant Support Branch
Division of Reactor Safety

Docket Nos. 50–315; 50–316
License Nos. DPR–58; DPR–74

Enclosure:
Inspection Report 05000315/2017502;
05000316/2017502

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Letter to Joel Gebbie from Kenneth Riemer dated June 12, 2017

SUBJECT: DONALD C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2 –
BASELINE EMERGENCY PREPAREDNESS BIENNIAL EXERCISE
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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-315; 50-316
License Nos: DPR-58; DPR-74

Report No: 05000315/2017502; 05000316/2017502

Licensee: Indiana Michigan Power

Facility: D.C. Cook Nuclear Plant, Units 1 and 2

Location: Bridgman, MI

Dates: May 22 – 25, 2017

Inspectors: G. Hansen, Senior Emergency Preparedness Inspector
M. Garza, Emergency Preparedness Inspector
D. Krause, Resident Inspector
V. Myers, Senior Health Physics Inspector
T. Ospino, Reactor Engineer

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

Enclosure

SUMMARY

IR 05000315/2017502; 05000316/2017502; 05/22/2017 – 05/25/2017; Donald C. Cook Nuclear Power Plant, Units 1 and 2; 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 five 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 May 23, 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 May 23, 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 Indicator (PI) for the period from the first quarter 2016 through first quarter 2017. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, “Regulatory Assessment Performance Indicator Guideline,” Revision 7, were 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 Drill/Exercise Performance sample as defined in IP 71151.

b. Findings

No findings were identified.

.2 Emergency Response Organization (ERO) Drill Participation

a. Inspection Scope

The inspectors sampled licensee submittals for the ERO Drill Participation PI for the period from the first quarter of 2016 through first quarter of 2017. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, were 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 exercises and drills; and revisions of the roster of personnel assigned to key emergency response organization positions. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one ERO Drill Participation 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 period from the first quarter 2016 through first quarter 2017. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, were 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 sample as defined in IP 71151.

b. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On May 25, 2017, the inspectors presented the biennial exercise inspection results to Mr. J. Gebbie, 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

J. Gebbie, Senior Vice President and Chief Nuclear Officer
S. Lies, Site Vice President
S. Partin, Site Director
J. Ross, Plant Manager
L. Baun, Nuclear Oversight Director
M. Lloyd, Vice President Engineering
S. Dailey, Maintenance Director
K. Fernau, Operations Director
J. Petro, Design Engineering Director
M. Scarpello, Nuclear Regulatory Affairs Manager
G. Weber, Cyber Security / Engineering Manager
K. Harper, Regulatory Affairs
R. Sieber, EP Manager
A. Thompson, EP Supervisor
K. Simpson, EP Supervisor
J. Crisenbery, EP Coordinator
R. Becvar, EP Coordinator
J. Tipton-Stone, EP Coordinator
S. Wiederwax, EP Coordinator
K. Appel, EP Coordinator

U.S. Nuclear Regulatory Commission

T. Taylor, 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)

- Donald C. Cook Nuclear Plant Emergency Plan; Revision 38
- RMT-2080-EOF-001; Activation and Operation of the EOF; Revision 34
- RMT-2080-OSC-001; Activation and Operation of the OSC; Revision 20
- RMT-2080-TSC-001; Activation and Operation of the TSC; Revision 25
- RMT-2080-JIC-001; Activation and Operation of the JIC; Revision 9
- PMP-2080-EPP-100; Emergency Response; Revision 33
- PMP-2080-EPP-101; Emergency Classification; Revision 20
- PMP-2080-EPP-108; Initial Dose Assessment; Revision 15
- PMP-2081-EPP-105; Core Damage Assessment; Revision 8
- EMD-32a; Nuclear Plant Event Notification
- EMD-32b; Nuclear Plant Event Technical Data
- PowerPoint Presentation: D.C. Cook May 23, 2017, Biennial Exercise Critique
- Emergency Preparedness Drill and Exercise Reports; May 2015 – May 2017
- AR 2015-8398; ERO Training Drill Revealed a Weakness in TSC Response; Dated June 26, 2015
- AR 2015-14153; ERO Evaluation Exercise DEP Results Below Expectations; Dated October 30, 2015
- AR 2016-2096; Emergency Response Facility Monthly and Quarterly Checks; Dated February 22, 2016
- AR 2016-2415; Fax Machine to State EOC; Dated March 1, 2016
- AR 2016-5081; Berrien County Ring Down Phone Does Not Work/Blue Phone; Dated April 22, 2016
- AR 2016-6571; Complete Loss of 911 Ring Down Phone System; Dated May 26, 2016
- AR 2016-8167; MIDAS Shore Tower Loss of Communications; Dated July 13, 2016
- AR 2016-8740; Standard for Emergency Notification not Met (Drill); Dated July 29, 2016
- AR 2016-10427; Procedure Use Error During 9/13/16 Drill; Dated September 16, 2016
- AR 2016-10431; ERONS Scenario Failure During 9/13/16 Drill; Dated September 16, 2016
- AR 2017-1626; EP Procedure Use Errors for Drill and Exercises; Dated February 10, 2017
- AR 2017-2165; Completion of Training Requirements not Documented; Dated February 22, 2017
- AR 2017-2374; E-Plan Inventory Deficiency Discovered and Corrected; Dated February 28, 2017
- AR 2017-2377; Record Keeping Deficiencies in EP Program Documents; Dated February 28, 2017
- AR 2017-2403; ERO Equipment Checks in Training Center; Dated March 1, 2017
- AR 2017-2416; Update to EP NRC KPI from 3Q 2016 Required; Dated March 1, 2017
- AR 2017-3324; MIDAS 10M Backup Reading Erroneous; Dated March 28, 2017
- AR 2017-4900; E-Plan Revision Not Submitted to NRC in 30 Days; Dated May 12, 2017

1EP8 Exercise Evaluation – Scenario Review (71114.08)

–D. C. Cook 2017 Evaluated Exercise May 23, 2017 Scenario Manual

4OA1 Performance Indicator Verification

–ERO Drill Participation Records; 1st Quarter of 2016 – 1st Quarter of 2017

–DEP Opportunities Records; 1st Quarter of 2016 – 1st Quarter of 2017

–ANS Reliability Records; 1st Quarter of 2016 – 1st Quarter of 2017

–AR 2017-1931; Weekly Silent Siren Test Error not Documented; Dated February 16, 2017

LIST OF ACRONYMS USED

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