



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

March 15, 2011

Mr. Larry Weber  
Senior Vice President and  
Chief Nuclear Officer  
Indiana Michigan Power Company  
Nuclear Generation Group  
One Cook Place  
Bridgman, MI 49106

**SUBJECT: D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2  
BASELINE EMERGENCY PREPAREDNESS BIENNIAL EXERCISE  
INSPECTION REPORT 05000315/2011502(DRS); 05000316/2011502(DRS)**

Dear Mr. Weber:

On March 4, 2011, the U. S. Nuclear Regulatory Commission (NRC) completed a Baseline Emergency Preparedness Biennial Exercise inspection at your D. C. Cook Nuclear Power Plant, Units 1 and 2. The enclosed report documents the inspection results, which were discussed on March 4, 2011, with you and other members of your staff.

Also, on March 10, 2011, the NRC completed a Baseline Emergency Preparedness Annual Emergency Action Level and Emergency Plan inspection of the D. C. Cook Nuclear Power Plant emergency action levels. The enclosed report documents the inspection results, which were discussed on March 10, 2011, with Mr. B. Chambers by telephone.

This inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no NRC-identified and no self-revealed findings of very low safety significance were identified.

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 (PARS) component of NRC's document system

L. Weber

-2-

(ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>  
(the Public Electronic Reading Room).

Sincerely,

*/RA/*

Hironori Peterson, Chief  
Operations Branch  
Division of Reactor Safety

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

Enclosure: Inspection Report No. 05000315/2011502(DRS);  
05000316/2011502(DRS)  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-315; 50-316

License Nos: DPR-58; DPR-74

Report Nos. 05000315/2011502(DRS); 05000316/2011502(DRS)

Licensee: Indiana Michigan Power Company

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

Location: Bridgman, MI

Dates: February 28 through March 10, 2011

Inspectors: Robert Jickling, Sr. Emergency Preparedness Inspector  
James Beavers, Emergency Preparedness Inspector  
Nicholas Valos, Sr. Risk Analyst  
Thomas Taylor, Resident Inspector

Approved by: Hironori Peterson, Chief  
Operations Branch  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 05000315/2011502, 05000316/2011502; 02/28/2011 – 03/10/2011; D. C. Cook Nuclear Power Plant, Units 1 and 2; Baseline Emergency Preparedness Biennial Exercise Inspection

This report covers a one week period of announced baseline inspection by three regional inspectors and one resident inspector and also an in-office baseline inspection by one regional inspector. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### **A. NRC-Identified and Self-Revealed Findings**

#### **Cornerstone: Emergency Preparedness**

No findings were identified.

### **B. Licensee-Identified Violations**

No violations were identified.

## REPORT DETAILS

### 1. REACTOR SAFETY

#### Cornerstone: Emergency Preparedness

#### 1EP1 Exercise Evaluation (71114.01)

##### .1 Exercise Evaluation

##### a. Inspection Scope

The inspectors reviewed the March 1, 2011, 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 in 2009 and 2010, to verify that those drills' scenarios were sufficiently different from the scenario used in the March 1, 2011, 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 (CRS);
- Technical Support Center (TSC);
- Operations Support Center (OSC); and
- Emergency Operations Facility (EOF).

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 CRS, TSC, OSC, and EOF 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) 71114.01-05.

##### b. Findings

No findings were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

Since the last NRC inspection of this program area, emergency action level changes were implemented based on your determination, in accordance with 10 CFR 50.54(q), that the changes resulted in no decrease in effectiveness of the Plan, and that the revised Plan as changed continues to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. Revisions to the emergency action levels and bases were reviewed by the inspectors in the D. C. Cook Nuclear Power Plant procedure PMP-2080-EPP-101, Emergency Classification, Revisions 13 and 14. The inspectors conducted a review of the emergency action levels and bases changes to evaluate for potential decreases in effectiveness of the Plan. However, this review does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

This emergency action level and emergency plan changes inspection constituted one sample as defined in IP 71114.04-05.

b. Findings

No findings were identified.

**4. OTHER ACTIVITIES**

**Cornerstone: Emergency Preparedness**

4OA1 Performance Indicator (PI) Verification (71151)

.1 Drill/Exercise Performance

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill/Exercise Performance PI for the period from the third quarter 2010 through fourth quarter 2010. 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 6, were used. The inspectors reviewed the licensee's records associated with the performance indicator 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 71151-05.

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 period from the third quarter 2010 through fourth quarter 2010. 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 6, 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 2009 and 2010 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 71151-05.

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 third quarter 2010 through fourth quarter 2010. 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 6, 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 alert and notification system sample as defined in IP 71151-05.

b. Findings

No findings were identified.

#### 4OA6 Management Meetings

##### .1 Exit Meeting Summary

On March 4, 2011, the inspectors presented the biennial exercise inspection results to you 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 Exit Meeting Summary

On March 10, 2011, the inspectors presented the annual emergency action level and emergency plan inspection results to Mr. B. Chambers by telephone. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION



## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

L. Weber, Senior Vice President and Chief Nuclear Officer  
L. Baun, Site Senior License Holder  
T. Brown, Projects Director  
G. Carlson, Performance Improvement Manager  
M. Carlson, Site Support Services Vice President  
B. Chambers, Emergency Preparedness Manager  
R. Ebright, Engineering Director  
D. Frie, Emergency Preparedness Coordinator  
J. Gebbie, Site Vice President  
C. Hutchinson, Nuclear Site Services Director  
C. Moeller, Radiation Protection Manager  
J. Newmiller, Licensing Activity Coordinator  
Q. Lies, Plant Manager  
J. Ross, Operations Director  
M. Scarpello, Regulatory Affairs Manager  
R. Sieber, Training Manager  
K. Steuer, Maintenance and Electrical Maintenance Manager  
T. Woods, Performance Assurance Director

#### Nuclear Regulatory Commission

J. Lennartz, Senior Resident Inspector  
P. LaFlamme, Resident Inspector

### **LIST OF ITEMS OPENED, CLOSED AND DISCUSSED**

#### Opened, Closed and Discussed

None

## LIST OF DOCUMENTS REVIEWED

The following is a 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 of 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

D. C. Cook 2011 Evaluated Exercise March 1, 2011 Scenario Manual  
D. C. Cook Nuclear Plant Emergency Plan; Revision 28  
EPP-2080-ANS-001; Alert and Notification System Operation; Revision 7  
PMP-2080-EPP-100; Emergency Response; Revision 19  
PMP-2080-EPP-500; Emergency Preparedness Drills and Exercises; Revision 0  
PMP-2081-EPP-105; Core Damage Assessment; Revision 6  
PMP-7030-001-001; Prompt NRC Notification; Revision 12  
RMT-2080-EOF-001; Activation and Operation of the EOF; Revision 17  
RMT-2080-OSC-001; Activation and Operation of the OSC; Revision 11  
RMT-2080-TSC-001; Activation and Operation of the TSC; Revision 14  
12-THP-6010-RPP-122; Planned Special Exposures; Revision 3  
List of Two Years of Corrective Action Program Items; September 2009 – February 2011  
List of Two Years of Scenario Timelines; September 2009 – February 2011  
AR 2011-2740; Exercise-Simulator ERO Incorrectly Activated at UE; March 2, 2011  
AR 2011-2737; Exercise-EOF ERO Relief Shift List Not Created and Approved;  
March 2, 2011  
AR 2011-2731; Exercise-Incorrect PAR Area Indicated in Scenario Manual;  
March 2, 2011  
AR 2011-2730; Exercise-OSC Incorrectly Identified Chem. Team Dispatched;  
March 2, 2011  
AR 2011-2729; Exercise-Simulator Incorrect Fire Classification as UE; March 2, 2011  
AR 2011-2726; Exercise-News Briefing Statements Distributed without ED Approval;  
March 2, 2011  
AR 2011-2722; Exercise-EOF Dose Assessment and Notification Timeliness Problems;  
March 2, 2011

### 1EP4 Emergency Action Level and Emergency Plan Changes

PMP-2080-EPP-101; Emergency Classification; Revisions 12, 13, and 14

4OA1 Performance Indicator Verification

EPP-2080-ANS-001; Alert and Notification System Operation; July – December 2010

EP Drill and Exercise Performance Quarterly Reports; July – December 2010

Quarterly Drill and Exercise Performance Summaries; July – December 2010

TRP-2070-TAP-400-OPS; Operations Training Implementation; July – December 2010

Emergency Response Organization Drill Participation Quarterly Reports;  
July - December 2010

Quarterly Key ERO Personnel and Drill Participation Dates; July – December 2010

## LIST OF ACRONYMS USED

ADAMS	Agency-wide Documents Access and Management System
ANS	Alert and Notification System
AR	Action Request
CFR	Code of Federal Regulations
CRS	Control Room Simulator
DRS	Division of Reactor Safety
ED	Emergency Director
EOF	Emergency Operations Facility
ERO	Emergency Response Organization
IMC	Inspection Manual Chapter
IP	Inspection Procedure
NEI	Nuclear Energy Institute
NRC	U. S. Nuclear Regulatory Commission
OSC	Operations Support Center
PARS	Publicly Available Records
PI	Performance Indicator
SDP	Significance Determination Process
TSC	Technical Support Center

L. Weber

-2-

(ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Hironori Peterson, Chief  
Operations Branch  
Division of Reactor Safety

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

Enclosure: Inspection Report No. 05000315/2011502(DRS);  
05000316/2011502(DRS)  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

DISTRIBUTION:

Daniel Merzke  
RidsNrrDorLpl3-1 Resource  
RidsNrrPMDCCook Resource  
RidsNrrDirslrib Resource  
Cynthia Pederson  
Steven Orth  
Jared Heck  
Allan Barker  
Carole Ariano  
Linda Linn  
DRPIII  
DRSIII  
Patricia Buckley  
Tammy Tomczak  
[ROPreports Resource](#)

DOCUMENT NAME: G:\DRSIII\DRS\Work in Progress\DCC 2011 502 DRS.docx

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		RIII						
NAME	RJickling:co		HPeterson						
DATE	03/15/2011		03/15/2011						

**OFFICIAL RECORD COPY**