



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

September 1, 2015

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

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR DONALD C. COOK NUCLEAR
POWER PLANT, UNITS 1 AND 2 (REPORT 05000315/2015005;
05000316/2015005)**

Dear Mr. Weber:

On August 13, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Donald C. Cook Nuclear Power Plant, Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2014 through June 30, 2015. 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, Donald C. Cook Nuclear Power Plant, Units 1 and 2 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Donald C. Cook Nuclear Power Plant, Units 1 and 2 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 at your facility.

The enclosed inspection plan lists the inspections scheduled through December 31, 2017. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the second half 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.

The NRC also plans to conduct Inspection Procedure 71111.05XT "Fire Protection – NFPA 805 (Triennial)" at your facility.

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. The audit has been completed for the first unit at Donald C. Cook Nuclear Generating Plant, and the information gathered will aid staff in development of the ultimate Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above performing Temporary Instruction 191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (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 me at 630-829-9628 with any questions you have regarding this letter.

Sincerely,

/RA/

Kenneth Riemer, Chief
Branch 2
Division of Reactor Projects

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

Enclosure:
Donald C. Cook Nuclear Power Plant
Inspection/Activity Plan

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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. The audit has been completed for the first unit at Donald C. Cook Nuclear Generating Plant, and the information gathered will aid staff in development of the ultimate Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above performing Temporary Instruction 191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

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OFFICE	RIII	RIII			
NAME	NShah:map	KRiemer			
DATE	08/26/2015	08/26/2015			

OFFICIAL RECORD COPY

Letter to L. Weber from K. Riemer dated September 1, 2015

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR DONALD C. COOK NUCLEAR
POWER PLANT, UNITS 1 AND 2 (REPORT 05000315/2015005;
05000316/2015005)

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D.C. Cook
Inspection / Activity Plan
09/01/2015 - 12/31/2017

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			BI ENG - COMPONENT DESIGN BASES INSPECTION PILOT		6
1, 2	11/02/2015	11/20/2015	IP 7111121	Component Design Bases Inspection	
			PI&R - BIENNIAL PI&R INSPECTION		4
1, 2	09/14/2015	10/02/2015	IP 71152B	Problem Identification and Resolution	
			BI EPX - EP EXERCISE INSPECTION / PI VERIFICATION		1
1	10/26/2015	10/30/2015	IP 71151	Performance Indicator Verification	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	10/05/2015	10/09/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	10/05/2015	10/09/2015	IP 71124.02	Occupational ALARA Planning and Controls	
			TI191 - FLEX/MITIGATING STRATEGIES/SFP		4
1, 2	02/01/2016	02/01/2016	IP 2515/191	Inspection of Licensee's Responses to Order EA-12-049, EA-12-051 & EP Info Request March 12, 2012	
			BI OLRQ - BIENNIAL REQUAL PROGRAM INSPECTION		2
1, 2	02/22/2016	02/26/2016	IP 7111111B	Licensed Operator Requalification Program	
			BI EP - EP ROUTINE INSPECTION/ PI VERIFICATION		1
1, 2	03/07/2016	03/11/2016	IP 7111402	Alert and Notification System Testing	
1, 2	03/07/2016	03/11/2016	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	03/07/2016	03/11/2016	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1, 2	03/07/2016	03/11/2016	IP 71151	Performance Indicator Verification	
			ENG BI - INSERVICE INSPECTION ON UNIT 1		1
1	03/21/2016	04/15/2016	IP 7111108P	Inservice Inspection Activities - PWR	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	04/04/2016	04/08/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	04/04/2016	04/08/2016	IP 71124.02	Occupational ALARA Planning and Controls	
			BI ENG - COMPONENT DESIGN BASIS INSPECTION PILOT		3
1, 2	05/09/2016	05/13/2016	IP 7111121	Component Design Bases Inspection	
			OL PREP - INIT PREP/JUNE 2016		3
1	06/13/2016	06/17/2016	W90345	OL - INITIAL EXAM - 2016 JUNE-JULY- D.C. COOK	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	06/20/2016	06/24/2016	IP 71124.07	Radiological Environmental Monitoring Program	
			OL EXAM - INIT EXAM/JULY 2016		3
1	07/11/2016	07/22/2016	W90345	OL - INITIAL EXAM - 2016 JUNE-JULY- D.C. COOK	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	07/18/2016	07/22/2016	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	

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

D.C. Cook
Inspection / Activity Plan
09/01/2015 - 12/31/2017

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			ENG BI - TRIENNIAL FIRE PROTECTION INSPECTION		3
1, 2	08/01/2016	09/02/2016	IP 7111105T	Fire Protection [Triennial]	
			ENG LR - LICENSE RENEWAL U2 71003 INSPECTION		7
1, 2	10/03/2016	10/14/2016	IP 71003	Post-Approval Site Inspection for License Renewal	
			ENG BI - INSERVICE INSPECTION ON UNIT 2		1
2	10/03/2016	11/11/2016	IP 7111108P	Inservice Inspection Activities - PWR	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	10/17/2016	10/21/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	10/17/2016	10/21/2016	IP 71124.02	Occupational ALARA Planning and Controls	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	03/27/2017	03/31/2017	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			BI MODS - TRIENNIAL MODIFICATIONS/50.59 INSPECTION		3
1, 2	03/27/2017	04/14/2017	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			BI EP - EP EXERCISE INSPECTION / PI VERIFICATION		2
1, 2	05/22/2017	05/26/2017	IP 7111401	Exercise Evaluation	
1, 2	05/22/2017	05/26/2017	IP 7111406	Drill Evaluation	
1, 2	05/22/2017	05/26/2017	IP 7111408	Exercise Evaluation – Scenario Review	
1, 2	05/22/2017	05/26/2017	IP 71151	Performance Indicator Verification	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	06/12/2017	06/16/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	06/12/2017	06/16/2017	IP 71124.04	Occupational Dose Assessment	
1	06/12/2017	06/16/2017	IP 71151	Performance Indicator Verification	
			BI HS - TRIENNIAL HEAT SINK INSPECTION		2
1, 2	06/19/2017	06/23/2017	IP 7111107T	Heat Sink Performance	
			BI PI&R - BIENNIAL PI&R INSPECTION		1
1, 2	08/14/2017	09/01/2017	IP 71152B	Problem Identification and Resolution	
			RENEWAL - LICENSE RENEWAL		1
1	10/02/2017	10/20/2017	IP 71003	Post-Approval Site Inspection for License Renewal	
			BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
1	10/16/2017	10/20/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	10/16/2017	10/20/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	10/16/2017	10/20/2017	IP 71151	Performance Indicator Verification	

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