



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

September 4, 2012

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**

Dear Mr. Weber:

On August 8, 2012, the NRC completed its mid-cycle performance review of D.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, 2011, through June 30, 2012. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. This assessment reflects the integration of the Security Cornerstone into Inspection Manual Chapter 0305, "Operating Reactor Assessment Program."

The NRC determined the performance at D.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, 2013. 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 addition to the ROP baseline inspections, inspections are planned for Inspection Procedure (IP) 71003, "Post-Approval Site Inspection for License Renewal"; Temporary Instruction (TI) 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems"; TI 2515/182, "Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping"; TI 2515/187, "Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walk downs"; TI 2515/188, "Inspection of Near-Term

Task Force Recommendation 2.3 Seismic Walk downs”; Independent Spent Fuel Storage Installation (ISFSI) inspections: IP 60854.1, “Preoperational Testing of ISFSIs at Operating Plants”; IP 60855.1, “Operation of an ISFSI at Operating Plants”; and IP 60856.1, “Review of 10 CFR 72.212(b) Evaluations at Operating Plants.” In addition, a team inspection involving IP 71152B, “Biennial Problem Identification and Resolution,” is scheduled in 2013.

In accordance with 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 document 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 630-829-9619 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

*/RA/*

John B. Giessner, Chief  
Branch 4  
Division of Reactor Projects

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

Enclosure: D.C. Cook Inspection/Activity Plan

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Letter to L. Weber from J. Giessner dated September 4, 2012.

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR DONALD C. COOK NUCLEAR  
POWER PLANT, UNITS 1 AND 2

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**D.C. Cook**  
**Inspection / Activity Plan**  
**09/01/2012 - 12/31/2013**

Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End			
		<b>TI-188 - TI-188 SEISMIC WALKDOWN</b>		<b>2</b>
06/30/2012	12/30/2012	IP 2515/187	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns	
		<b>TI-187 - TI-187 FLOODING WALKDOWN</b>		<b>2</b>
07/01/2012	12/31/2012	IP 2515/187	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns	
		<b>BI HS - TRIENNIAL HEAT SINK INSPECTION</b>		<b>2</b>
11/26/2012	11/30/2012	IP 7111107T	Heat Sink Performance	
		<b>TI 182 - TI 182 PHASE 1 BURIED PIPING</b>		<b>1</b>
11/26/2012	11/30/2012	IP 2515/182	Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTIO</b>		<b>1</b>
12/10/2012	12/14/2012	IP 71124.05	Radiation Monitoring Instrumentation	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
02/04/2013	02/08/2013	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
02/04/2013	02/08/2013	IP 71124.04	Occupational Dose Assessment	
		<b>BI OLRQ - REQUALIFICATION PROGRAM INSPECTION</b>		<b>1</b>
02/25/2013	03/01/2013	IP 7111111A	Licensed Operator Requalification Program - Annual Review	
		<b>RENEWAL - LICENSE RENEWAL INSPECTION-71003 PHASE 1</b>		<b>4</b>
03/25/2013	04/26/2013	IP 71003	Post-Approval Site Inspection for License Renewal	
		<b>BI ISI - INSERVICE INSPECTION - UNIT 1</b>		<b>2</b>
03/25/2013	04/28/2013	IP 7111108P	Inservice Inspection Activities - PWR	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
04/08/2013	04/12/2013	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
04/08/2013	04/12/2013	IP 71124.02	Occupational ALARA Planning and Controls	
		<b>BI FIRE - FIRE PROTECTION INSPECTION &amp; BAG TRIP</b>		<b>3</b>
05/27/2013	06/28/2013	IP 7111105T	Fire Protection [Triennial]	
		<b>BI EPX - EP EXERCISE INSPECTION / PI VERIFICATION</b>		<b>2</b>
06/03/2013	06/07/2013	IP 7111401	Exercise Evaluation	
06/03/2013	06/07/2013	IP 71151	Performance Indicator Verification	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTIO</b>		<b>1</b>
07/15/2013	07/19/2013	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
		<b>BI PI&amp;R - BIENNIAL PI&amp;R INSPECTION</b>		<b>4</b>
08/26/2013	09/13/2013	IP 71152B	Problem Identification and Resolution	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
08/12/2013	08/16/2013	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	

**D.C. Cook**  
**Inspection / Activity Plan**  
**09/01/2012 - 12/31/2013**

Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End			
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
08/12/2013	08/16/2013	IP 71124.07	Radiological Environmental Monitoring Program	
08/12/2013	08/16/2013	IP 71151-BI01	Reactor Coolant System Activity	
08/12/2013	08/16/2013	IP 71151-OR01	Occupational Exposure Control Effectiveness	
08/12/2013	08/16/2013	IP 71151-PR01	RETS/ODCM Radiological Effluent	
		<b>BI ISI - INSERVICE INSPECTION - UNIT 1</b>		<b>2</b>
10/07/2013	10/25/2013	IP 7111108P	Inservice Inspection Activities - PWR	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
10/07/2013	10/11/2013	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
10/07/2013	10/11/2013	IP 71124.02	Occupational ALARA Planning and Controls	