



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

March 3, 2010

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

**SUBJECT: ANNUAL ASSESSMENT LETTER - D. C. COOK NUCLEAR POWER PLANT,  
UNITS 1 AND 2, (05000315/2010001; 05000316/2010001)**

Dear Mr. Jensen:

On February 11, 2010, the NRC staff completed its performance review of D.C. Cook Nuclear Power Plant, Units 1 and 2. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2009. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only - Security Information" will include the Security Cornerstone review and resultant inspection plan.

Overall, D.C. Cook Nuclear Power Plant, Units 1 and 2, operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter at D.C. Cook, Unit 1 and Unit 2, was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at the facility. We also plan on conducting several special and infrequently performed Inspection Procedures (IPs) which include: IP 60856.1, "Review of 10 CFR 72.212(b) Evaluations at Operating Plants"; and IP 60853, "Independent Spent Fuel Storage Installation Onsite Fabrication."

The enclosed inspection plan details the inspections, less those related to physical protection scheduled through June 30, 2011. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last 9 months of the inspection plan are tentative and may be revised at the mid-cycle review.

J. Jensen

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made 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).

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at 630-829-9833 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

**/RA/**

Jamnes L. Cameron, Chief  
Branch 6  
Division of Reactor Projects

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

Enclosure: D.C. Cook Inspection/Activity Plan

cc w/encl: Distribution via ListServ

**D.C. Cook**  
**Inspection / Activity Plan**  
**03/01/2010 - 06/30/2011**

Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End			
		<b>ISFSI - ISFSI INSPECTION</b>		<b>2</b>
04/01/2010	12/31/2010	IP 60856	Review of 10 CFR 72.212(b) Evaluations	
06/01/2010	09/30/2010	IP 60853	On-Site Fabrication Of Components And Construction On An ISFSI	
		<b>BI ENG - INSERVICE INSPECTION &amp; TI-172 REVISION 1</b>		<b>1</b>
03/08/2010	03/26/2010	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds	
03/08/2010	03/26/2010	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds	
03/08/2010	03/26/2010	IP 7111108P	Inservice Inspection Activities - PWR	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
03/15/2010	03/19/2010	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
03/15/2010	03/19/2010	IP 71124.02	Occupational ALARA Planning and Controls	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
05/17/2010	05/21/2010	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative	
05/17/2010	05/21/2010	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
05/17/2010	05/21/2010	IP 71151-BI01	Reactor Coolant System Activity	
		<b>TI - TEMPORARY INSTRUCTION 2515/180</b>		<b>1</b>
06/15/2010	06/15/2010	IP 2515/180	Inspection of Procedures and Processes for Managing Fatigue	
		<b>OL EXAM - D. C. COOK INIT EXAM 06/2010</b>		<b>3</b>
06/21/2010	07/02/2010	W90217	OL - INITIAL EXAM - JUNE 2010 - COOK	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
08/09/2010	08/13/2010	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
08/09/2010	08/13/2010	IP 71151-PR01	RETS/ODCM Radiological Effluent	
		<b>BI ENG - COMPONENT DESIGN BASES INSPECTION</b>		<b>5</b>
08/16/2010	09/17/2010	IP 7111121	Component Design Bases Inspection	
		<b>BI EP - EP ROUTINE INSPECTION / PI VERIFICATION</b>		<b>2</b>
09/13/2010	09/17/2010	IP 7111402	Radiological Environmental Monitoring Program	
09/13/2010	09/17/2010	IP 7111403	Emergency Response Organization Augmentation Testing	
09/13/2010	09/17/2010	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
09/13/2010	09/17/2010	IP 71151-EP01	Drill/Exercise Performance	
09/13/2010	09/17/2010	IP 71151-EP02	ERO Drill Participation	
09/13/2010	09/17/2010	IP 71151-EP03	Alert & Notification System	
		<b>BI ENG - ENGINEERING INSERVICE INSPECTION</b>		<b>1</b>
10/04/2010	10/22/2010	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds	
10/04/2010	10/22/2010	IP 7111108P	Inservice Inspection Activities - PWR	

**D.C. Cook**  
**Inspection / Activity Plan**  
**03/01/2010 - 06/30/2011**

Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End			
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
10/11/2010	10/15/2010	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
10/11/2010	10/15/2010	IP 71124.02	Occupational ALARA Planning and Controls	
10/11/2010	10/15/2010	IP 71151-OR01	Occupational Exposure Control Effectiveness	
		<b>BI EP - EP EXERCISE INSPECTION / PI VERIFICATION</b>		<b>3</b>
02/28/2011	03/04/2011	IP 7111401	Exercise Evaluation	
02/28/2011	03/04/2011	IP 71151-EP01	Drill/Exercise Performance	
02/28/2011	03/04/2011	IP 71151-EP02	ERO Drill Participation	
02/28/2011	03/04/2011	IP 71151-EP03	Alert & Notification System	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
02/28/2011	03/04/2011	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
02/28/2011	03/04/2011	IP 71124.04	Occupational Dose Assessment	
02/28/2011	03/04/2011	IP 71151	Performance Indicator Verification	
		<b>BI ENG - TRIENNIAL ENGINEERING PERM MODS/50.59</b>		<b>3</b>
03/21/2011	04/08/2011	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
04/25/2011	04/29/2011	IP 71124.07	Public Radiation Safety	
04/25/2011	04/29/2011	IP 71151-PR01	RETS/ODCM Radiological Effluent	
		<b>BI PI&amp;R - BIENNIAL PI&amp;R INSPECTION</b>		<b>3</b>
05/02/2011	05/20/2011	IP 71152B	Identification and Resolution of Problems	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
06/20/2011	06/24/2011	IP 2515/179	Verification of Licensee Responses to NRC Requirement for Inventories of Materials Tracked in NSTS	
06/20/2011	06/24/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
06/20/2011	06/24/2011	IP 71124.02	Occupational ALARA Planning and Controls	
06/20/2011	06/24/2011	IP 71151-OR01	Occupational Exposure Control Effectiveness	

J. Jensen

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Letter to J. Jensen from J. Cameron dated March 3, 2010.

SUBJECT: ANNUAL ASSESSMENT LETTER - D. C. COOK NUCLEAR POWER PLANT,  
UNITS 1 AND 2, (05000315/2010001; 05000316/2010001)

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