



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

March 4, 2009

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 (05000315/2009001; 05000316/2009001)

Dear Mr. Jensen:

On February 11, 2009, the NRC staff completed its performance review of D.C. Cook Nuclear Power Plant, Units 1 and 2, for the calendar year 2008 assessment cycle. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results over the previous 12 months. 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 Related 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. Baseline inspections will include samples in problem identification and resolution, and equipment alignment and maintenance effectiveness to focus on issues related to the September 20, 2008, Unit 1 main turbine high vibration event prior to restart activities.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through June 30, 2010. 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 end-of-cycle review.

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 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).

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

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Letter to J. Jensen from J. Cameron dated March 4, 2009

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UNITS 1 AND 2 (05000315/2009001; 05000316/2009001)

cc w/encl: L Weber, Site Vice President  
J. Gebbie, Plant Manager  
G. White, Michigan Public Service Commission  
L. Brandon, Michigan Department of Environmental Quality -  
Waste and Hazardous Materials Division  
Emergency Management Division  
MI Department of State Police  
T. Strong, Chief, State Liaison Officer, State of Michigan  
Berrien County Board Chairman  
Berrien County Coordinator  
Berrien County Sheriff  
EMA Coordinator, Berrien County Emergency  
Management Agency  
Mayor of Benton Harbor  
City Manager of Benton Harbor  
Mayor of St. Joseph  
City Manager of St. Joseph  
Mayor of Bridgman  
City Manager of Bridgman  
Mayor of Buchanan  
City Manager of Buchanan  
President, Village of Stevensville  
President, Village of Berrien Springs  
President, Village of Shoreham  
G. Mortensen, INPO

**D.C. Cook**  
**Inspection / Activity Plan**  
**03/01/2009 - 06/30/2010**

Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End			
		<b>BI ENG - INSERVICE INSPECTION &amp; TI-172 REVISION 1</b>		<b>1</b>
03/23/2009	04/10/2009	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds	
03/23/2009	04/10/2009	IP 7111108P	Inservice Inspection Activities - PWR	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
04/06/2009	04/10/2009	IP 7112101	Access Control to Radiologically Significant Areas	
04/06/2009	04/10/2009	IP 7112102	ALARA Planning and Controls	
		<b>ISFSI - ISFSI INSPECTION - PAD CONSTRUCTION</b>		<b>2</b>
04/01/2009	06/30/2009	IP 60853	On-Site Fabrication Of Components And Construction On An ISFSI	
04/01/2009	06/30/2009	IP 60856	Review of 10 CFR 72.212(b) Evaluations	
04/01/2009	06/30/2009	IP 60856.1	Review of 10 CFR 72.212(b) Evaluations at Operating Plants	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
07/06/2009	07/10/2009	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems	
07/06/2009	07/10/2009	IP 71151-BI01	Reactor Coolant System Activity	
07/06/2009	07/10/2009	IP 71151-PR01	RETS/ODCM Radiological Effluent	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
07/13/2009	07/17/2009	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program	
		<b>BI EP - EP EXERCISE INSPECTION / PI VERIFICATION</b>		<b>4</b>
09/14/2009	09/18/2009	IP 2515/175	Emergency Response Organization, Drill/Exercise Performance Indicator, Program Review	
09/14/2009	09/18/2009	IP 7111401	Exercise Evaluation	
09/14/2009	09/18/2009	IP 71151-EP01	Drill/Exercise Performance	
09/14/2009	09/18/2009	IP 71151-EP02	ERO Drill Participation	
09/14/2009	09/18/2009	IP 71151-EP03	Alert & Notification System	
		<b>BI ENG - TRIENNIAL FIRE PROT. INFO GATHERING TRIP</b>		<b>3</b>
10/05/2009	10/09/2009	IP 7111105T	Fire Protection [Triennial]	
		<b>BI ENG - TRIENNIAL FIRE PROTECTION INSPECTION</b>		<b>3</b>
11/02/2009	11/20/2009	IP 7111105T	Fire Protection [Triennial]	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
11/02/2009	11/06/2009	IP 7112101	Access Control to Radiologically Significant Areas	
11/02/2009	11/06/2009	IP 7112102	ALARA Planning and Controls	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
01/25/2010	01/29/2010	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	
		<b>BI ENG - TRIENNIAL HEAT SINK INSPECTION</b>		<b>1</b>
02/08/2010	02/12/2010	IP 7111107T	Heat Sink Performance	
		<b>BI OL - LIC. OPERATOR REQUAL. PROGRAM EVALUATION</b>		<b>2</b>
03/08/2010	03/12/2010	IP 7111111B	Licensed Operator Requalification Program	

**D.C. Cook**  
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03/29/2010	04/16/2010	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds	
03/29/2010	04/16/2010	IP 7111108P	Inservice Inspection Activities - PWR	
		<b>BI ENG - HEAD DROP ANALYSES</b>		<b>1</b>
05/03/2010	05/21/2010	IP 7111120	Refueling and Other Outage Activities	
		<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 71151-BI01	Reactor Coolant System Activity	
05/17/2010	05/21/2010	IP 71151-PR01	RETS/ODCM Radiological Effluent	

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Jamnes L. Cameron, Chief  
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