



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

September 2, 2008

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

**SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -  
D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2**

Dear Mr. Rencheck:

On August 14, 2008, the NRC staff completed its performance review of D.C. Cook Nuclear Power Plant, Units 1 and 2 for the first half of 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.

Plant performance for the most recent quarter at D.C. Cook Nuclear Power Plant, Units 1 and 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 your facility.

The enclosed inspection plan details the inspections, less those related to physical protection scheduled through December 31, 2009. The inspection schedule includes a fire protection inspection in the late August/early September 2009 time frame. 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 nine 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 630-829-9619 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

**/RA/**

Ross Telson, Chief  
Branch 4  
Division of Reactor Projects

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

Enclosure: D.C. Cook Inspection/Activity Plan

DISTRIBUTION:  
See next page

Letter to M. Renchek from R. Telson dated September 2, 2008

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -  
D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2

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

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OFFICE	RIII		RIII						
NAME	RLerch:cms		RTelson						
DATE	8/26/08		8/27/08						

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Letter to M. Renchek from R. Telson dated September 2, 2008

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -  
D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2

DISTRIBUTION:

Terry Beltz

Tamara Bloomer

RidsNrrDirslpab Resource

James Caldwell

Mark Satorius

Kenneth Obrien

Allan Barker

DRPIII

DRSIII

Patricia Buckley

Tammy Tomczak

[ROPreports@nrc.gov](mailto:ROPreports@nrc.gov) (inspection reports, final SDP letters, any letter with an IR number)

**D.C. Cook**  
**Inspection / Activity Plan**  
**09/01/2008 - 12/31/2009**

Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
<b>TI</b>	<b>- TEMPORARY INSTRUCTION 2515/172 -U2</b>	<b>1</b>			
IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds		09/15/2008	09/19/2008	Generic Safety Inspection
<b>BI ENG</b>	<b>- ENGINEERING MODIFICATIONS / 50.59 INSP.</b>	<b>3</b>			
IP 7111117B	Evaluations of Changes, Tests, or Experiments & Permanent Plant Modifications		10/06/2008	10/24/2008	Baseline Inspections
<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>			
IP 7112202	Radioactive Material Processing and Transportation		01/05/2009	01/09/2009	Baseline Inspections
IP 71151-BI01	Reactor Coolant System Activity		01/05/2009	01/09/2009	Baseline Inspections
IP 71151-OR01	Occupational Exposure Control Effectiveness		01/05/2009	01/09/2009	Baseline Inspections
<b>BI ENG</b>	<b>- ENGINEERING INSERVICE INSPECTION</b>	<b>2</b>			
IP 7111108P	Inservice Inspection Activities - PWR		03/23/2009	04/17/2009	Baseline Inspections
<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>			
IP 7112101	Access Control to Radiologically Significant Areas		04/06/2009	04/10/2009	Baseline Inspections
IP 7112102	ALARA Planning and Controls		04/06/2009	04/10/2009	Baseline Inspections
<b>BI EP</b>	<b>- EP EXERCISE INSPECTION / PI VERIFICATION</b>	<b>1</b>			
IP 7111401	Exercise Evaluation		06/01/2009	06/05/2009	EP Baseline Inspection
IP 71151-EP01	Drill/Exercise Performance		06/01/2009	06/05/2009	Baseline Inspections
IP 71151-EP02	ERO Drill Participation		06/01/2009	06/05/2009	Baseline Inspections
IP 71151-EP03	Alert & Notification System		06/01/2009	06/05/2009	Baseline Inspections
<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>			
IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program		07/06/2009	07/10/2009	Baseline Inspections
IP 71151-PR01	RETS/ODCM Radiological Effluent		07/06/2009	07/10/2009	Baseline Inspections
<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>			
IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		07/13/2009	07/17/2009	Baseline Inspections
<b>BI ENG</b>	<b>- TRIENNIAL FIRE PROTECTION INSPECTION</b>	<b>3</b>			
IP 7111105T	Fire Protection [Triennial]		08/31/2009	09/18/2009	Baseline Inspections
<b>BI ENG</b>	<b>- TRIENNIAL FIRE PROT. INFO GATHERING TRIP</b>	<b>3</b>			
IP 7111105T	Fire Protection [Triennial]		08/17/2009	08/21/2009	Baseline Inspections
<b>BI ENG</b>	<b>- ENGINEERING INSERVICE INSPECTION</b>	<b>2</b>			
IP 7111108P	Inservice Inspection Activities - PWR		10/19/2009	11/07/2009	Baseline Inspections
<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>			
IP 7112101	Access Control to Radiologically Significant Areas		11/02/2009	11/06/2009	Baseline Inspections
IP 7112102	ALARA Planning and Controls		11/02/2009	11/06/2009	Baseline Inspections