



**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

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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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D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2

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DRSIII

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Tammy Tomczak

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		Inspection Type
			Start	End	
TI	- TEMPORARY INSTRUCTION 2515/172 -U2	1			
IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds		09/15/2008	09/19/2008	Generic Safety Inspectio
BI ENG	- ENGINEERING MODIFICATIONS / 50.59 INSP.	3			
IP 7111117B	Evaluations of Changes, Tests, or Experiments & Permanent Plant Modifications		10/06/2008	10/24/2008	Baseline Inspections
BI RP	- RADIATION PROTECTION BASELINE INSPECTION	1			
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
BI ENG	- ENGINEERING INSERVICE INSPECTION	2			
IP 7111108P	Inservice Inspection Activities - PWR		03/23/2009	04/17/2009	Baseline Inspections
BI RP	- RADIATION PROTECTION BASELINE INSPECTION	1			
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
BI EP	- EP EXERCISE INSPECTION / PI VERIFICATION	1			
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
BI RP	- RADIATION PROTECTION BASELINE INSPECTION	1			
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
BI RP	- RADIATION PROTECTION BASELINE INSPECTION	1			
IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		07/13/2009	07/17/2009	Baseline Inspections
BI ENG	- TRIENNIAL FIRE PROTECTION INSPECTION	3			
IP 7111105T	Fire Protection [Triennial]		08/31/2009	09/18/2009	Baseline Inspections
BI ENG	- TRIENNIAL FIRE PROT. INFO GATHERING TRIP	3			
IP 7111105T	Fire Protection [Triennial]		08/17/2009	08/21/2009	Baseline Inspections
BI ENG	- ENGINEERING INSERVICE INSPECTION	2			
IP 7111108P	Inservice Inspection Activities - PWR		10/19/2009	11/07/2009	Baseline Inspections
BI RP	- RADIATION PROTECTION BASELINE INSPECTION	1			
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