

August 30, 2005

Mr. M. Nazar  
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-  
DONALD C. COOK NUCLEAR POWER PLANT

Dear Mr. Nazar:

On August 9, 2005, the NRC staff completed its performance review of the Donald C. Cook Nuclear Power Plant for the first half of the calendar year 2005 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 physical protection information. A separate letter designated and marked as "Exempt from Public Disclosure in Accordance with 10 CFR 2.390" will include the physical protection review and a resultant inspection plan.

Plant performance for Unit 1 for the most recent quarter 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 only reactor oversight process (ROP) baseline inspections at your facility through March 31, 2007.

Plant performance for Unit 2 for the most recent quarter was within the Regulatory Response column of the NRC's Action Matrix based on one White PI in the Scrams With Loss of Normal Heat Removal area of the Initiating Events cornerstone. Otherwise, all inspection findings were classified as having very low safety significance (Green) and all PIs indicated performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct only ROP baseline inspections at your facility through March 31, 2007.

Additionally, on September 29, 2004, the NRC issued a Severity Level III violation when a licensed operator with a potentially disqualifying medical condition was not reported to the NRC as required. Subsequently, following your implementation of corrective actions to address this issue, the NRC staff identified an additional individual with a potentially disqualifying medical condition that was not reported to the NRC as required. We will continue to monitor your actions in response to this issue.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through March 31, 2007. Significant inspections planned for this year include a Safety System Design and Performance Inspection in September 2005, a Biennial Heat Sink Inspection in October 2005, a Triennial Fire Protection Inspection in January 2006, a Modification/50.59 Inspection in May 2006, and a Biennial Problem Identification and Resolution Inspection in July 2006. The inspection plan is provided to minimize the resource impact on your staff and 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 meeting.

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 the inspection plan, we will contact you to discuss the change as soon as possible. Please contact Eric Duncan at (630) 829-9628 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

*/RA/*

Mark A. Satorius, Director  
Division of Reactor Projects

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

Enclosure: D. C. Cook Nuclear Power Plant Inspection/Activity Plan

See Attached Distribution

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M. Nazar

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cc w/encl: J. Jensen, Site Vice President  
L. Weber, 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  
D. Lochbaum, Union of Concerned Scientists  
Berrien County Board Chairman  
Berrien County Coordinator  
Berrien County Sheriff  
Coordinator, Berrien County Emergency  
Management Agency  
Mayor of Benton Harbor  
City Manager  
Mayor of St. Joseph  
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**D.C. Cook**  
**Inspection / Activity Plan**  
**09/01/2005 - 03/31/2007**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>SSDPC - SAFETY SYSTEM DESIGN &amp; PERFORMANCE</b>		<b>6</b>			
1,2	IP 7111121	Safety System Design and Performance Capability		09/05/2005	09/23/2005	Baseline Inspections
	<b>HEATSKB - BIENNIAL HEAT SINK INSPECTION</b>		<b>1</b>			
1,2	IP 7111107B	Heat Sink Performance		10/03/2005	10/07/2005	Baseline Inspections
	<b>7111401 - EP EXERCISE &amp; EP PI INSP</b>		<b>2</b>			
1,2	IP 7111401	Exercise Evaluation		09/19/2005	09/23/2005	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		09/19/2005	09/23/2005	Baseline Inspections
	<b>7112103 - RADIOLOGICAL INSTRUMENTATION</b>		<b>1</b>			
1,2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		01/09/2006	01/13/2006	Baseline Inspections
	<b>FPI - FIRE PROTECTION INSPECTION TRIENNIAL</b>		<b>3</b>			
1,2	IP 7111105T	Fire Protection [Triennial]		01/23/2006	02/10/2006	Baseline Inspections
	<b>FY 2006 - D. C. COOK INIT PREP 01/2006</b>		<b>3</b>			
1	W90130	OL - INITIAL EXAM - D.C. COOK - JAN/FEB 2006		01/16/2006	01/20/2006	Not Applicable
	<b>FY 2006 - D. C. COOK INIT EXAM 02/2006</b>		<b>3</b>			
1	W90130	OL - INITIAL EXAM - D.C. COOK - JAN/FEB 2006		02/06/2006	02/17/2006	Not Applicable
	<b>71111.11 - LIC OPERATOR REQUAL PROGRAM EVALUATION</b>		<b>2</b>			
1,2	IP 7111111B	Licensed Operator Requalification Program		03/06/2006	03/10/2006	Baseline Inspections
	<b>ISI - D.C. COOK UNIT 2 ISI INSPECTION</b>		<b>2</b>			
1	IP 7111108P	Inservice Inspection Activities - PWR		03/27/2006	04/21/2006	Baseline Inspections
	<b>7112102 - ALARA (OUTAGE)</b>		<b>2</b>			
1,2	IP 7112102	ALARA Planning and Controls		04/03/2006	04/07/2006	Baseline Inspections
	<b>IP 71114 - EP NON-EXERCISE BASELINE</b>		<b>1</b>			
1,2	IP 7111402	Alert and Notification System Testing		04/17/2006	04/21/2006	Baseline Inspections
1,2	IP 7111403	Emergency Response Organization Augmentation Testing		04/17/2006	04/21/2006	Baseline Inspections
1,2	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		04/17/2006	04/21/2006	Baseline Inspections
1,2	IP 71151	Performance Indicator Verification		04/17/2006	04/21/2006	Baseline Inspections
	<b>MOD/5059 - MODIFICATION/50.59 INSPECTION</b>		<b>2</b>			
1,2	IP 7111102	Evaluation of Changes, Tests, or Experiments		05/08/2006	05/26/2006	Baseline Inspections
1,2	IP 711117B	Permanent Plant Modifications		05/08/2006	05/26/2006	Baseline Inspections
	<b>PI&amp;R - PI&amp;R BIENNIAL</b>		<b>3</b>			
1,2	IP 71152B	Identification and Resolution of Problems		07/24/2006	08/18/2006	Baseline Inspections
	<b>MAINT - MAINTENANCE EFFECTIVENESS</b>		<b>1</b>			
1,2	IP 711112B	Maintenance Effectiveness		07/17/2006	07/21/2006	Baseline Inspections
	<b>7112101 - RADIOLOGICAL ACCESS CONTROL</b>		<b>1</b>			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		08/07/2006	08/11/2006	Baseline Inspections

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

**D.C. Cook**  
**Inspection / Activity Plan**  
**09/01/2005 - 03/31/2007**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>7112101</b>	<b>- RADIOLOGICAL ACCESS CONTROL</b>	<b>1</b>			
1, 2	IP 71151	Performance Indicator Verification		08/07/2006	08/11/2006	Baseline Inspections
	<b>ISI</b>	<b>- D.C. COOK U1 ISI &amp; RPV HD FAB/MOD INSP</b>	<b>5</b>			
1	IP 71007	Reactor Vessel Head Replacement Inspection		09/11/2006	11/03/2006	Other Routine
1	IP 7111102	Evaluation of Changes, Tests, or Experiments		09/11/2006	11/03/2006	Baseline Inspections
1	IP 7111117B	Permanent Plant Modifications		09/11/2006	11/03/2006	Baseline Inspections
1	IP 7111108P	Inservice Inspection Activities - PWR		10/09/2006	11/03/2006	Baseline Inspections
	<b>7112202</b>	<b>- TRANSPORTATION &amp; RADWASTE</b>	<b>1</b>			
1, 2	IP 7112202	Radioactive Material Processing and Transportation		10/30/2006	11/03/2006	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		10/30/2006	11/03/2006	Baseline Inspections