

August 30, 2004

Mr. Mano Nazar  
Executive Vice President and  
Chief Nuclear Officer  
Nuclear Generation Group  
American Electric Power Company  
500 Circle Drive  
Buchanan, MI 49107

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN  
DONALD C. COOK NUCLEAR POWER PLANT  
(REPORT 50-315/05-01; 50-316/05-01)

Dear Mr. Nazar:

On August 11, 2004, the NRC staff completed its mid-cycle plant performance assessment of the Donald C. Cook Nuclear Power Plant. The mid-cycle review for the Donald C. Cook Nuclear Power Plant involved the participation of all technical divisions in evaluating performance for the first half of the 2004 assessment cycle. The process included a review of performance indicators (PIs) for the most recent quarter and inspection results over the previous twelve 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 so that you will have an opportunity to prepare for these inspections and to inform us of any planned inspections that may conflict with your plant activities.

Plant performance for the most recent quarter for Unit 1 was within the Regulatory Response Column of the NRC's Action Matrix based on one White inspection finding in the Public Radiation Safety cornerstone. This White finding was identified in the first quarter of the 2004 assessment cycle and involved the failure to prepare a shipment of radioactive waste such that Department of Transportation radiation limits were not exceeded. A supplemental inspection was conducted for this White finding and concluded that your staff performed an adequate evaluation of the specific performance issues and that comprehensive corrective actions were completed to address each of the specific causes. Otherwise, all inspection findings for Unit 1 were classified as having very low safety significance (Green) and all performance indicators indicated performance at a level requiring no additional oversight (Green).

Plant performance for the most recent quarter for Unit 2 was within the Regulatory Response Column of the NRC's Action Matrix based on the White inspection finding in the Public Radiation Safety cornerstone discussed above and one White PI in the Scrams With Loss of Normal Heat Removal area of the Initiating Events Cornerstone. This PI crossed the Green-to-White threshold in the third quarter of the 2002 assessment cycle. Unit 2 transitioned from the Degraded Cornerstone Column to the Regulatory Response Column of the NRC's Action Matrix in the most recent quarter, as a White PI in the Unplanned Scrams Per 7000 Critical Hours area of the Initiating Events cornerstone transitioned the White-to-Green threshold and was Green.

Otherwise, all inspection findings for Unit 2 were classified as having very low safety significance (Green) and all performance indicators indicated performance at a level requiring no additional oversight (Green).

In our 2002 mid-cycle assessment letter, we advised you of a substantive cross-cutting issue in the area of Problem Identification and Resolution. In particular, weak corrective action program implementation resulted in several findings associated with the failure to promptly and effectively resolve conditions adverse to quality. In our 2002 annual assessment letter, we indicated that this cross-cutting issue would remain open because we continued to identify corrective action implementation issues. In our 2003 mid-cycle assessment letter, this cross-cutting issue remained open due to the continued identification of examples where the corrective action program failed to promptly correct conditions adverse to quality. In our 2003 annual assessment letter, we determined that some positive observations in the implementation of your corrective action program had been noted. However, because some corrective action program improvements had only recently been implemented and their effectiveness could not be fully assessed, and to assure ourselves that positive corrective action program results could be sustained, this cross-cutting issue remained open. During this assessment period, we noted both a decline in the number of findings in the Problem Identification and Resolution area as well as your satisfactory review of issues which were the subject of NRC supplemental inspections. Therefore, this Problem Identification and Resolution substantive cross-cutting issue was closed.

The enclosed inspection plan details the inspections scheduled through March 31, 2006. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last 12 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).

M. Nazar

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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 Eric Duncan at (630) 829-9628 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

*/RA/*

James L. Caldwell  
Regional Administrator

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

Enclosure: D. C. Cook Inspection/Activity Plan

See Attached Distribution

M. Nazar

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cc w/encl: J. Jensen, Site Vice President  
M. Finissi, Plant Manager  
G. White, Michigan Public Service Commission  
Michigan Department of Environmental Quality  
Emergency Management Division  
MI Department of State Police  
D. Lochbaum, Union of Concerned Scientists

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**D.C. Cook**  
**Inspection / Activity Plan**  
**09/01/2004 - 03/31/2006**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	<b>MOD/5059 - MODIFICATIONS &amp; 50.59</b>		<b>3</b>			
1, 2	IP 7111102	Evaluation of Changes, Tests, or Experiments		09/13/2004	09/17/2004	Baseline Inspections
1, 2	IP 7111117B	Permanent Plant Modifications		09/13/2004	09/17/2004	Baseline Inspections
	<b>ISI 2 - INSERVICE INSP/TI-150/TI-152 UNIT 2</b>		<b>3</b>			
2	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC Bulletin 2002-02)		10/04/2004	10/22/2004	Safety Issues
2	IP 2515/152	Reactor Pressure Vessel Lower Head Penetration Nozzles (NRC Bulletin 2003-02)		10/04/2004	10/22/2004	Safety Issues
2	IP 7111108P	Inservice Inspection Activities - PWR		10/04/2004	10/22/2004	Baseline Inspections
	<b>71121.02 - ALARA (OUTAGE)</b>		<b>1</b>			
1, 2	IP 7112102	ALARA Planning and Controls		10/18/2004	10/22/2004	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		10/18/2004	10/22/2004	Baseline Inspections
	<b>RENEWAL - AGING MANAGEMENT PROGRAM INSPECTION</b>		<b>5</b>			
1, 2	IP 71002	License Renewal Inspection		11/01/2004	11/19/2004	License Renewal Insp
	<b>PI&amp;R - PI&amp;R INSPECTION</b>		<b>3</b>			
1, 2	IP 71152	Identification and Resolution of Problems		11/29/2004	12/17/2004	Baseline Inspections
	<b>71122.01 - RADIOLOGICAL EFFLUENT CONTROL</b>		<b>1</b>			
1, 2	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		01/10/2005	01/14/2005	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		01/10/2005	01/14/2005	Baseline Inspections
	<b>ISI - UNIT 1 ISI/TI-150 INSPECTION</b>		<b>1</b>			
1	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC Bulletin 2002-02)		03/28/2005	04/08/2005	Safety Issues
1	IP 7111108P	Inservice Inspection Activities - PWR		03/28/2005	04/08/2005	Baseline Inspections
	<b>71121.02 - OUTAGE ALARA</b>		<b>1</b>			
1, 2	IP 7112102	ALARA Planning and Controls		04/04/2005	04/08/2005	Baseline Inspections
	<b>SSDPC - SAFETY SYSTEM DESIGN &amp; PERFORMANCE</b>		<b>5</b>			
1, 2	IP 7111121	Safety System Design and Performance Capability		07/25/2005	08/12/2005	Baseline Inspections
	<b>71122.03 - REMP &amp; RAD MTL CONTROL</b>		<b>1</b>			
1, 2	IP 7112203	Radiological Environmental Monitoring Program		07/11/2005	07/15/2005	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		07/11/2005	07/15/2005	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>71114 - 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>71121.01 - RADIOLOGICAL ACCESS CONTROL</b>		<b>1</b>			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		10/10/2005	10/14/2005	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**  
**09/01/2004 - 03/31/2006**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	<b>71121.01</b>	<b>- RADIOLOGICAL ACCESS CONTROL</b>	<b>1</b>			
1, 2	IP 71151	Performance Indicator Verification		10/10/2005	10/14/2005	Baseline Inspections
	<b>FY 2006</b>	<b>- 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</b>	<b>- 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>FIREPROT</b>	<b>- FIRE PROTECTION INSPECTION TRIENNIAL</b>	<b>1</b>			
1, 2	IP 7111105T	Fire Protection		03/06/2006	03/24/2006	Baseline Inspections