

March 4, 2004

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

SUBJECT: ANNUAL ASSESSMENT LETTER - D.C. COOK NUCLEAR POWER PLANT
(REPORT 50-315/04-01; 50-316/04-01)

Dear Mr. Nazar:

On February 10, 2004, the NRC staff completed its end-of-cycle plant performance assessment of your D.C. Cook Nuclear Power Plant. The end-of-cycle review for D.C. Cook involved the participation of all technical divisions in evaluating performance indicators for the most recent quarter and inspection results for the period from January 1 through December 31, 2003. 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.

Overall, your D.C. Cook Nuclear Power Plant was operated in a manner that preserved public health and safety and met all cornerstone objectives with moderate degradation in safety performance. Plant performance for the most recent quarter was within the Degraded Cornerstone column of the NRC's Action Matrix based on two White Unit 2 performance indicators in the Unplanned Scrams Per 7000 Critical Hours and Scrams With Loss of Normal Heat Removal areas of the Initiating Events cornerstone. Plant performance for the most recent quarter for Unit 1 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 performance indicators indicating performance at a level requiring no additional oversight.

Plant performance for Unit 2 for the first three quarters of the assessment period was within the Degraded Cornerstone column of the NRC's Action Matrix based on two White inspection findings in the Mitigating Systems cornerstone and one White performance indicator in the Scrams With Loss of Normal Heat Removal area of the Initiating Events cornerstone. The first White finding was identified in the first quarter of the 2002 annual assessment period and involved turbine-driven auxiliary feedwater pump start failures. The second White finding was identified in the second quarter of the 2002 annual assessment period and involved degraded essential service water system performance which affected both Unit 1 and 2. A supplemental inspection was conducted in accordance with inspection procedure (IP) 95002, "Inspection for

One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area,” for the two White findings and concluded that your evaluation of these findings was incomplete because an adequate extent of condition review for the root causes and contributing causes had not been performed. This was considered to be a significant weakness in your evaluation and resulted in both of the White findings that contributed to the degraded cornerstone remaining open beyond four quarters. Subsequently, a followup IP 95002 inspection was conducted and closed out the open issues. At the time these inspections were completed, the White performance indicators had not been identified; therefore, no additional inspections had been accomplished. A supplemental inspection to review the Scrams With Loss of Normal Heat Removal White performance indicator was subsequently conducted in accordance with IP 95001, “Inspection For One Or Two White Inputs In A Strategic Performance Area,” and concluded that your evaluation adequately identified the underlying root causes and contributing causes which resulted in this performance indicator crossing the Green/White threshold. At the time this inspection was completed, the Unplanned Scrams Per 7000 Critical Hours White performance indicator had not yet been identified; therefore, no additional inspection had been accomplished. A supplemental inspection to review the circumstances and corrective actions to address both the Unplanned Scrams Per 7000 Critical Hours and Scrams With Loss of Normal Heat Removal White performance indicators will be accomplished in accordance with IP 95002 following the completion of your reviews of the root causes and contributing causes which resulted in these performance indicators crossing the Green/White threshold.

Plant performance for Unit 1 for the previous three quarters was within the Regulatory Response column of the NRC’s Action Matrix, based on the White finding identified in the second quarter of the 2002 annual assessment period discussed above. Otherwise, all inspection findings were classified as having very low safety significance (Green) and all performance indicators indicated performance at a level requiring no additional NRC oversight.

In our 2002 mid-cycle assessment letter dated August 23, 2002, we advised you of a substantive cross-cutting issue in the area of Problem Identification and Resolution. In particular, an adverse performance trend associated with the failure to promptly and effectively resolve conditions adverse to quality was identified. In our 2002 end-of-cycle assessment letter, poor corrective action program implementation was identified as a continued area of concern. As a result, and at our request, you discussed your planned actions to improve performance in this cross-cutting area at the April 10, 2003, end-of-cycle public meeting. In the 2003 mid-cycle assessment letter, this cross-cutting issue remained open due to continued findings in this area, including a significant inadequacy which we identified during a supplemental inspection in your extent of condition review for the root causes and contributing causes for the two White findings. Recently, some positive observations in the implementation of your corrective action program have been noted, as reflected in the results of our recent Problem Identification and Resolution inspection as well as the results of our inspection activities to review your root cause evaluation of the Scrams With Loss of Normal Heat Removal White performance indicator. We are also aware that some corrective action program improvements have only recently been implemented; therefore, their effectiveness could not be fully assessed. To assure ourselves that recent corrective action program results

can be sustained and to fully assess the effectiveness of your recent performance improvement initiatives, this cross-cutting issue will remain open pending further review. The effectiveness of your corrective action program to resolve problems will be a focus area during the course of routine baseline and plant status inspection activities and during our next Problem Identification and Resolution inspection currently scheduled for Fall 2004. You are requested to specifically address the actions that you have taken and plan to implement to improve performance in this cross-cutting area at the end-of-cycle public meeting currently scheduled for April 7, 2004. We also request that you provide us with a letter which details the actions you have taken to date to address this long-standing substantive cross-cutting issue as well as your future planned actions with your implementation schedule.

An exit meeting was held on January 8, 2004, for an event that occurred on October 8, 2003, when a shipment of dry active waste from D.C. Cook that was housed in a sea-land container arrived at a radioactive waste processing facility with radiation levels which exceeded NRC and Department of Transportation limits. A preliminary White finding was identified following our review of this event. However, because the exit meeting for this issue occurred after December 31, 2003, and because the finding associated with this issue was preliminary in nature, this issue was not included as part of the 2003 annual assessment.

The enclosed inspection plan details the inspections scheduled through September 30, 2005. 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 mid-cycle review meeting. As you are aware, the NRC has issued several Orders and threat advisories to enhance security capabilities and improve guard force readiness since the terrorist attacks on September 11, 2001. We have conducted inspections to review your implementation of these requirements and have monitored your actions in response to changing threat conditions. For calendar year 2004, we plan to continue inspections of Order implementation combined with newly developed portions of the security baseline inspection program.

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, Chief, Reactor Projects Branch 6 at (630) 829-9628 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

James L. Caldwell
Region III Administrator

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

Enclosure: D.C. Cook Inspection/Activity Plan

See Attached Distribution

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/RA/

James L. Caldwell
Region III Administrator

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cc w/encl: J. Jensen, Site Vice President
M. Finissi, Plant Manager
R. Whale, Michigan Public Service Commission
Michigan Department of Environmental Quality
Emergency Management Division
MI Department of State Police
D. Lochbaum, Union of Concerned Scientists
B. Witkowski, County Board Chairman
J. M. Henry, Berrien County Coordinator
Sheriff L. Paul Bailey
M. Bradley, Berrien County Emergency Management Coordinator
The Honorable Charles Yarbrough
D. Mitchell, Benton Harbor City Manager
The Honorable Mary Goff
F. Walsh, St. Joseph City Manager
The Honorable William Skiba
A. Anthony, City Manager
The Honorable David Hagey
M. Hughes, City Manager
M. Getz, President, Village of Stevensville
J. Choudoir, President, Village of Berrien Springs
L. Larsen, President, Village of Shoreham
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D.C. Cook
Inspection / Activity Plan
03/01/2004 - 09/30/2005

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	RENEWAL - SCOPING AND SCREENING INSPECTION		3			
1, 2	IP 71002	License Renewal Inspection		05/17/2004	05/21/2004	License Renewal Ins
	IP 95002 - IP 95002 FOR TWO WHITE PI		4			
2	IP 95002	Inspection For One Degraded Cornerstone Or Any Three White Inputs In A Strategic Perform		02/17/2004	05/21/2004	Supplemental Progra
	71111.11 - LIC OPERATOR REQUAL PROGRAM EVALUATION		2			
1, 2	IP 7111111B	Licensed Operator Requalification Program		03/01/2004	03/05/2004	Baseline Inspections
	71121.03 - RADIOLOGICAL INSTRUMENTATION		1			
1, 2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		03/01/2004	03/05/2004	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		03/01/2004	03/05/2004	Baseline Inspections
	FY 2004 - D. C. COOK INIT EXAM 03/2004		3			
1	W90075	OL - INITIAL EXAM - DC COOK - FEB/MAR 2004		03/15/2004	04/02/2004	Not Applicable
	FLWP - FOLLOW-UP OF URI'S FROM HEAT SINK INSP		1			
1	IP 71152	Identification and Resolution of Problems		04/12/2004	04/16/2004	Baseline Inspections
	71114 - 71114-02/03/05 AND PI VERIFICATION		1			
1, 2	IP 7111402	Alert and Notification System Testing		04/12/2004	04/16/2004	Baseline Inspections
1, 2	IP 7111403	Emergency Response Organization Augmentation Testing		04/12/2004	04/16/2004	Baseline Inspections
1, 2	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		04/12/2004	04/16/2004	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		04/12/2004	04/16/2004	Baseline Inspections
	SG BASE - SG BASELINE 2004		2			
1, 2	IP 7113001	Access Authorization		05/03/2004	05/07/2004	Baseline Inspections
1, 2	IP 7113002	Access Control		05/03/2004	05/07/2004	Baseline Inspections
1, 2	IP 7113008	Fitness For Duty Program		05/03/2004	05/07/2004	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		05/03/2004	05/07/2004	Baseline Inspections
	71122.02 - RADWASTE/TRANSPORTATION		1			
1, 2	IP 7112202	Radioactive Material Processing and Transportation		05/10/2004	05/19/2004	Baseline Inspections
	IP 95001 - IP 95001 INSPECTION FOR DOT EVENT		1			
1, 2	IP 95001	Supplemental Inspection For One Or Two White Inputs In A Strategic Performance Area		05/10/2004	05/19/2004	Supplemental Progra
	MR - MAINTENANCE RULE		1			
1, 2	IP 7111112B	Maintenance Effectiveness		07/19/2004	07/23/2004	Baseline Inspections
	71121.01 - RADIOLOGICAL ACCESS CONTROL		1			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		08/16/2004	08/20/2004	Baseline Inspections
1, 2	IP 71151	Performance Indicator Verification		08/16/2004	08/20/2004	Baseline Inspections
	ISI 2 - INSERVICE INSP/TI-150/TI-152 UNIT 2		2			
2	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC Bulletin 2002-0		10/04/2004	10/22/2004	Safety Issues

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
03/01/2004 - 09/30/2005

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	ISI 2 - INSERVICE INSP/TI-150/TI-152 UNIT 2		2			
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
	MOD/5059 - MODIFICATIONS & 50.59		3			
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
	71121.02 - ALARA (OUTAGE)		1			
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
	RENEWAL - AGING MANAGEMENT PROGRAM INSPECTION		3			
1,2	IP 71002	License Renewal Inspection		11/01/2004	11/19/2004	License Renewal Ins
	PI&R - PI&R INSPECTION		1			
1,2	IP 71152	Identification and Resolution of Problems		11/29/2004	12/17/2004	Baseline Inspections
	71122.01 - RADIOLOGICAL EFFLUENT CONTROL		1			
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
	ISI - UNIT 1 ISI/TI-150 INSPECTION		2			
1	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC Bulletin 2002-0		03/28/2005	04/08/2005	Safety Issues
1	IP 7111108P	Inservice Inspection Activities - PWR		03/28/2005	04/08/2005	Baseline Inspections
	71121.02 - OUTAGE ALARA		1			
1,2	IP 7112102	ALARA Planning and Controls		04/04/2005	04/08/2005	Baseline Inspections
	SSDI - SAFETY SYSTEM DESIGN INSPECTION		5			
1,2	IP 7111121	Safety System Design and Performance Capability		07/25/2005	08/12/2005	Baseline Inspections
	71122.03 - REMP & RAD MTL CONTROL		1			
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
	HEATSKB - BIENNIAL HEAT SINK INSPECTION		1			
1,2	IP 7111107B	Heat Sink Performance		09/26/2005	09/30/2005	Baseline Inspections
	71114 - EP EXERCISE & EP PI INSP		2			
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

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