

March 2, 2007

Mr. Mano K. Nazar  
Senior Vice President and  
Chief Nuclear Officer  
Indiana Michigan Power Company  
Nuclear Generation Group  
One Cook Place  
Bridgman, MI 49106

SUBJECT: ANNUAL ASSESSMENT LETTER - D.C. COOK NUCLEAR PLANT  
UNITS 1 AND 2 (REPORT 05000315/2007-001; 05000316/2007-001)

Dear Mr. Nazar:

On February 14, 2007, the NRC staff completed its performance review of the D.C. Cook Nuclear Plant. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2006. 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 as "Exempt from Public Disclosure in Accordance with 10 CFR 2.390" and marked as "Official Use Only - Security-Related Information" will include the physical protection review and resultant inspection plan.

Overall, D.C. Cook operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance 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 reactor oversight process baseline inspections at your facility.

Additionally, on October 6, 2006, the staff issued a Severity Level III Notice of Violation in accordance with the NRC's Enforcement Policy. This was a violation of 10 CFR 50.54(q) and 10 CFR 50.47(b)(4) with a \$60,000 civil penalty. The licensee had made a change to their Emergency Plan EAL scheme that was determined to be a decrease in effectiveness without prior NRC approval.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through June 30, 2008. 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 scheduled within the last 9 months of the inspection plan are tentative and may be revised at the next mid-cycle review.

M. Nazar

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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), 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/**

Christine A. Lipa, Chief  
Branch 4  
Division of Reactor Projects

Docket No. 50-315; 50-316  
License No. DPR-58, DPR-74

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

DISTRIBUTION:  
See next page

M. Nazar

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Christine A. Lipa, Chief  
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**OFFICIAL RECORD COPY**

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  
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  
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**D.C. Cook**  
**Inspection / Activity Plan**  
**03/01/2007 - 06/30/2008**

| Unit Number | Inspection Activity | Title   | No. of Staff on Site | Planned Dates Start | Planned Dates End | Inspection Type      |
|-------------|---------------------|---|----------------------|---------------------|-------------------|----------------------|
|             | <b>CDBI</b>         | <b>- COMPONENT DESIGN BASES INSPECTION</b>  | <b>10</b>            |                     |                   |                      |
| 1,2         | IP 7111121          | Component Design Bases Inspection   |                      | 01/29/2007          | 03/02/2007        | Baseline Inspections |
|             | <b>FY 2007</b>      | <b>- D. C. COOK INIT PREP 02/2007</b>   | <b>3</b>             |                     |                   |                      |
| 1           | W90152              | OL - INITIAL EXAM - D.C. COOK - FEB/MAR 2007  |                      | 02/26/2007          | 03/02/2007        | Not Applicable       |
|             | <b>FY 2007</b>      | <b>- D. C. COOK INIT EXAM 03/2007</b>   | <b>3</b>             |                     |                   |                      |
| 1           | W90152              | OL - INITIAL EXAM - D.C. COOK - FEB/MAR 2007  |                      | 03/19/2007          | 03/30/2007        | Not Applicable       |
|             | <b>HD REPL</b>      | <b>- HEAD REPLACEMENT INSPECTION</b>  | <b>2</b>             |                     |                   |                      |
| 2           | IP 71007            | Reactor Vessel Head Replacement Inspection  |                      | 04/23/2007          | 09/07/2007        | Other Routine        |
|             | <b>71122.03</b>     | <b>- REMP &amp; RAD MTL CONTROL</b>   | <b>1</b>             |                     |                   |                      |
| 1,2         | IP 7112203          | Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control P |                      | 04/30/2007          | 05/04/2007        | Baseline Inspections |
|             | <b>HEATSINK</b>     | <b>- HEAT SINK INSPECTION</b>   | <b>1</b>             |                     |                   |                      |
| 1,2         | IP 7111107B         | Heat Sink Performance   |                      | 07/09/2007          | 07/13/2007        | Baseline Inspections |
|             | <b>EP BI</b>        | <b>- BASELINE EP EXERCISE INSP</b>  | <b>1</b>             |                     |                   |                      |
| 1,2         | IP 7111401          | Exercise Evaluation   |                      | 08/13/2007          | 08/17/2007        | Baseline Inspections |
| 1,2         | IP 71151-EP01       | Drill/Exercise Performance  |                      | 08/13/2007          | 08/17/2007        | Baseline Inspections |
| 1,2         | IP 71151-EP02       | ERO Drill Participation   |                      | 08/13/2007          | 08/17/2007        | Baseline Inspections |
| 1,2         | IP 71151-EP03       | Alert & Notification System   |                      | 08/13/2007          | 08/17/2007        | Baseline Inspections |
|             | <b>71121.01</b>     | <b>- RADIOLOGICAL ACCESS CONTROL</b>  | <b>1</b>             |                     |                   |                      |
| 1,2         | IP 7112101          | Access Control to Radiologically Significant Areas                                      |                      | 09/24/2007          | 09/28/2007        | Baseline Inspections |
| 1,2         | IP 7112102          | ALARA Planning and Controls   |                      | 09/24/2007          | 09/28/2007        | Baseline Inspections |
| 1,2         | IP 71151            | Performance Indicator Verification  |                      | 09/24/2007          | 09/28/2007        | Baseline Inspections |
|             | <b>ISI</b>          | <b>- ISI INSPECTION</b>   | <b>1</b>             |                     |                   |                      |
| 2           | IP 7111108P         | Inservice Inspection Activities - PWR   |                      | 09/24/2007          | 10/26/2007        | Baseline Inspections |
|             | <b>71122.01</b>     | <b>- RADIOLOGICAL EFFLUENTS</b>   | <b>1</b>             |                     |                   |                      |
| 1,2         | IP 7112201          | Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems                |                      | 11/05/2007          | 11/09/2007        | Baseline Inspections |
| 1,2         | IP 71151            | Performance Indicator Verification  |                      | 11/05/2007          | 11/09/2007        | Baseline Inspections |
|             | <b>7111111B</b>     | <b>- LICENSED OPERATOR REQUAL INSPECTION</b>  | <b>4</b>             |                     |                   |                      |
| 1,2         | IP 7111111B         | Licensed Operator Requalification Program   |                      | 03/10/2008          | 03/14/2008        | Baseline Inspections |
|             | <b>7112101</b>      | <b>- ACCESS CONTROL</b>   | <b>2</b>             |                     |                   |                      |
| 1,2         | IP 7112101          | Access Control to Radiologically Significant Areas                                      |                      | 03/17/2008          | 03/21/2008        | Baseline Inspections |
|             | <b>ISI</b>          | <b>- ISI INSPECTION</b>   | <b>1</b>             |                     |                   |                      |
| 1           | IP 7111108P         | Inservice Inspection Activities - PWR   |                      | 03/17/2008          | 04/11/2008        | Baseline Inspections |
|             | <b>EP</b>           | <b>- EP PROG AND PI INSP</b>  | <b>1</b>             |                     |                   |                      |
| 1,2         | IP 7111402          | Alert and Notification System Testing   |                      | 06/02/2008          | 06/06/2008        | Baseline Inspections |
| 1,2         | IP 7111403          | Emergency Response Organization Augmentation Testing                                    |                      | 06/02/2008          | 06/06/2008        | 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**  
**03/01/2007 - 06/30/2008**

| Unit Number | Inspection Activity | Title  | No. of Staff on Site | Planned Dates Start | Planned Dates End | Inspection Type      |
|-------------|---------------------|--|----------------------|---------------------|-------------------|----------------------|
|             | <b>EP</b>           | <b>- EP PROG AND PI INSP</b>                                     | <b>1</b>             |                     |                   |                      |
| 1,2         | IP 7111405          | Correction of Emergency Preparedness Weaknesses and Deficiencies |                      | 06/02/2008          | 06/06/2008        | Baseline Inspections |
| 1,2         | IP 71151            | Performance Indicator Verification                               |                      | 06/02/2008          | 06/06/2008        | Baseline Inspections |
|             | <b>71122.02</b>     | <b>- RAD MATERIAL PROCESSING / TRANSPORTATION</b>                | <b>1</b>             |                     |                   |                      |
| 1,2         | IP 7112202          | Radioactive Material Processing and Transportation               |                      | 05/12/2008          | 05/16/2008        | Baseline Inspections |
|             | <b>MOD/5059</b>     | <b>- MODIFICATIONS/50.59 INSPECTIONS</b>                         | <b>1</b>             |                     |                   |                      |
| 1,2         | IP 7111102          | Evaluation of Changes, Tests, or Experiments                     |                      | 06/23/2008          | 07/11/2008        | Baseline Inspections |
| 1,2         | IP 711117B          | Permanent Plant Modifications                                    |                      | 06/23/2008          | 07/11/2008        | Baseline Inspections |