

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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| DATE | 08/29/05 | 08/29/05 | | | | |

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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
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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 |
|-------------|--|--|----------------------|---------------------|-------------------|----------------------|
| | SSDPC - SAFETY SYSTEM DESIGN & PERFORMANCE | | 6 | | | |
| 1,2 | IP 7111121 | Safety System Design and Performance Capability | | 09/05/2005 | 09/23/2005 | Baseline Inspections |
| | HEATSKB - BIENNIAL HEAT SINK INSPECTION | | 1 | | | |
| 1,2 | IP 7111107B | Heat Sink Performance | | 10/03/2005 | 10/07/2005 | Baseline Inspections |
| | 7111401 - 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 |
| | 7112103 - RADIOLOGICAL INSTRUMENTATION | | 1 | | | |
| 1,2 | IP 7112103 | Radiation Monitoring Instrumentation and Protective Equipment | | 01/09/2006 | 01/13/2006 | Baseline Inspections |
| | FPI - FIRE PROTECTION INSPECTION TRIENNIAL | | 3 | | | |
| 1,2 | IP 7111105T | Fire Protection [Triennial] | | 01/23/2006 | 02/10/2006 | Baseline Inspections |
| | FY 2006 - D. C. COOK INIT PREP 01/2006 | | 3 | | | |
| 1 | W90130 | OL - INITIAL EXAM - D.C. COOK - JAN/FEB 2006 | | 01/16/2006 | 01/20/2006 | Not Applicable |
| | FY 2006 - D. C. COOK INIT EXAM 02/2006 | | 3 | | | |
| 1 | W90130 | OL - INITIAL EXAM - D.C. COOK - JAN/FEB 2006 | | 02/06/2006 | 02/17/2006 | Not Applicable |
| | 71111.11 - LIC OPERATOR REQUAL PROGRAM EVALUATION | | 2 | | | |
| 1,2 | IP 7111111B | Licensed Operator Requalification Program | | 03/06/2006 | 03/10/2006 | Baseline Inspections |
| | ISI - D.C. COOK UNIT 2 ISI INSPECTION | | 2 | | | |
| 1 | IP 7111108P | Inservice Inspection Activities - PWR | | 03/27/2006 | 04/21/2006 | Baseline Inspections |
| | 7112102 - ALARA (OUTAGE) | | 2 | | | |
| 1,2 | IP 7112102 | ALARA Planning and Controls | | 04/03/2006 | 04/07/2006 | Baseline Inspections |
| | IP 71114 - EP NON-EXERCISE BASELINE | | 1 | | | |
| 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 |
| | MOD/5059 - MODIFICATION/50.59 INSPECTION | | 2 | | | |
| 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 |
| | PI&R - PI&R BIENNIAL | | 3 | | | |
| 1,2 | IP 71152B | Identification and Resolution of Problems | | 07/24/2006 | 08/18/2006 | Baseline Inspections |
| | MAINT - MAINTENANCE EFFECTIVENESS | | 1 | | | |
| 1,2 | IP 711112B | Maintenance Effectiveness | | 07/17/2006 | 07/21/2006 | Baseline Inspections |
| | 7112101 - RADIOLOGICAL ACCESS CONTROL | | 1 | | | |
| 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 |
|-------------|---------------------|---|----------------------|---------------------|-------------------|----------------------|
| | 7112101 | - RADIOLOGICAL ACCESS CONTROL | 1 | | | |
| 1,2 | IP 71151 | Performance Indicator Verification | | 08/07/2006 | 08/11/2006 | Baseline Inspections |
| | ISI | - D.C. COOK U1 ISI & RPV HD FAB/MOD INSP | 5 | | | |
| 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 |
| | 7112202 | - TRANSPORTATION & RADWASTE | 1 | | | |
| 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 |