

September 29, 2004

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

SUBJECT: D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2  
NRC EVALUATIONS OF CHANGES, EXPERIMENTS, OR TESTS  
AND PERMANENT PLANT MODIFICATIONS INSPECTION REPORT  
050000315/2004011(DRS); 50000316/2004011(DRS)

Dear Mr. Nazar:

On September 17, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed a routine baseline inspection at your D. C. Cook Nuclear Power Plant. The enclosed report documents the inspection findings, which were discussed on September 17, 2004, with Mr. D. Fadel and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Specifically, this inspection focused on the baseline biennial inspections for evaluations of changes, tests, or experiments (10 CFR 50.59) and permanent plant modifications. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

No findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publically Available Records (PARS) component

M. Nazar

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Sincerely,

*/RA/*

David Hills, Chief  
Materials Engineering Branch  
Division of Reactor Safety

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

Enclosure: Inspection Report 050000315/2004011(DRS);  
50000316/2004011(DRS)  
w/Attachment: Supplemental Information

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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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 050000315/2004011(DRS); 50000316/2004011(DRS)

Licensee: American Electric Power Company

Facility: D. C. Cook Nuclear Power Plant

Location: 1 Cook Place  
Bridgman, MI 49106

Dates: September 13 through 17, 2004

Inspectors: A. Dunlop, Senior Reactor Engineer  
B. Jose, Reactor Engineer  
G. O'Dwyer, Reactor Engineer

Approved by: D. Hills, Chief  
Materials Engineering Branch  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 050000315/2004011(DRS); 50000316/2004011(DRS); 9/13/2004 - 9/17/2004; D. C. Cook Nuclear Power Plant; Routine Biennial Evaluations of Changes, Experiments or Tests, and Permanent Plant Modification Inspections.

This report covers a five day period of announced baseline inspection on evaluations of changes, tests, or experiments and permanent plant modifications. The inspection was conducted by three Region III inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### A. Inspector-Identified and Self-Revealed Findings

#### **Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity**

No findings of significance were identified.

### B. Licensee-Identified Violations

No findings of significance were identified.

## REPORT DETAILS

### 1. REACTOR SAFETY

#### **Cornerstone: Initiating Events, Mitigating Systems, and Barrier Integrity**

#### 1R02 Evaluations of Changes, Tests, or Experiments (71111.02)

#### .1 Review of 50.59 Evaluations and Screenings

##### a. Inspection Scope

From September 13, 2004, through September 17, 2004, the inspectors reviewed six evaluations performed pursuant to 10 CFR 50.59 requirements. The evaluations related to permanent plant modifications, setpoint changes, procedure changes, conditions adverse to quality, and changes to the Updated Final Safety Analysis Report (UFSAR). The inspectors reviewed the evaluations for thoroughness and to determine if prior NRC approval was obtained as appropriate. The inspectors also reviewed 23 screenings where the licensee had determined that a 10 CFR 50.59 evaluation was not necessary. In regard to the changes reviewed where no 10 CFR 50.59 evaluation was performed, the inspectors reviewed the changes to determine if they met the threshold to require a 10 CFR 50.59 evaluation. These evaluations and screenings were chosen based upon a consideration of the risk significance of samples from the different cornerstones. In addition, the inspectors reviewed six applicability determinations to verify that a screening or evaluation per 10 CFR 50.59 was not required. The list of documents reviewed by the inspectors is included as an attachment to this report. The inspectors used, in part, Nuclear Energy Institute (NEI) 96-07, "Guidelines of 50.59 Evaluations," Revision 1, to determine acceptability of the completed evaluations, and screenings. The NEI document was endorsed by the NRC in Regulatory Guide 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments," November 2000. The inspectors also consulted Inspection Manual, Part 9900, "10 CFR Guidance: 50.59."

##### b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

.1 Review of Recent Modifications

a. Inspection Scope

From September 13, 2004, through September 17, 2004, the inspectors reviewed 17 permanent plant modifications, including 2 that affected barrier integrity. These plant modifications were divided among the various programs that the licensee used to make changes to the plant, including design changes (4), equivalency evaluations (6), commercial grade dedications (4), and setpoint changes (3). The modifications were chosen based upon a consideration of its probabilistic risk analysis (PRA) significance. The inspectors reviewed these modifications to verify that the completed design changes were in accordance with the specified design requirements and the licensing bases, and to confirm that the changes did not affect any system's safety function. Calculations, which were performed or revised to support modifications, were also reviewed. Design and post-modification testing aspects were verified to ensure the functionality of the modification, its associated system, and any support systems. The inspectors evaluated the modifications against the licensee's design basis documents and the UFSAR. The inspectors also used applicable industry standards, such as the American Society of Mechanical Engineers Code, to evaluate acceptability of the modifications. The list of documents reviewed by the inspectors is included as an attachment to this report.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES (OA)**

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Condition Reports

a. Inspection Scope

From September 13, 2004, through September 17, 2004, the inspectors reviewed a selected sample of condition reports associated with permanent plant modifications and 10 CFR 50.59 evaluations and screenings. The inspectors reviewed these issues to verify an appropriate threshold for identifying issues and to evaluate the effectiveness of corrective actions. In addition, condition reports written on issues identified during the inspection were reviewed to verify adequate problem identification and incorporation of the problem into the corrective action system. The specific corrective action documents that were reviewed by the inspectors are listed in the attachment to this report.

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Mr. D. Fadel and other members of licensee management on September 17, 2004. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

D. Baker, Configuration Control  
D. Fadel, Vice President Engineering  
J. Gebbie, Engineering Programs Manager  
B. Kovarik, Performance Assurance Assessment Supervisor  
P. Mangan, Configuration Control Manager  
M. Mieran, Performance Assurance Manager  
J. Newmiller, Regulatory Affairs Specialist  
T. Woods, Regulatory Affairs Compliance Supervisor

#### Nuclear Regulatory Commission

I. Netzel, Resident Inspector

### **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

#### Opened, Closed, Discussed

None.

## LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

### Commercial Grade Dedication Plans

Number	Title	Revision
HP-0049	Component Cooling Water Pump Coupling	Revision 5
HP-0090	Emergency Diesel Generator Starting Air Check Valves	Revision 7
HP-0108	Strainer Baskets for the Turbine Driven and Motor Driven Auxiliary Feedwater Pump Duplex Strainers	Revision 1
HP-0152	EDG Starting Air Check Valve Springs	Revision 0

### Condition Reports Generated Due to the Inspection

Number	Title	Date
AR04258058	NRC Question Whether Certain Topics on Data Sheet 4 of EE-2004-0140 Should Have Been Checked	9/14/2004
AR04259022	Training Request to Add Discussion of Documentation for 50.59 Applicability Determinations	9/15/2004
AR04259025	Description for 50.59 Applicability Determination 2003-0877 Could Have Been Enhanced to Facilitate Third Party Review	9/15/2004
AR04259036	EE-2004-0282 Did Not Identify Impact to 12-MHP-5021-001-199	9/15/2004
AR04259043	Initial Revision of PMP-2350-CMS-001 Did Not Identify Impact to PMP-2350-SES-001	9/15/2004
AR04259059	EE-2000-0476 Did Not Identify Impact to Technical Data Book	9/15/2004
AR04260044	50.59 Applicability Determination Could Have Been Enhanced to Support Conclusion	9/16/2004

### Condition Reports Reviewed During the Inspection

Number	Title	Date
CR02242029	Potentially Unresolved NRC Questions Concerning Information in Safety Screening/Safety Evaluation 2001-1197	8/30/2002

### Condition Reports Reviewed During the Inspection

Number	Title	Date
CR02242032	NRC Review Determined 50.59 Evaluations Had Documentation Issues	8/30/2002
CR02240066	NRC Document Request Identified One 50.59 Review That Could Not be Located	8/28/2002
CR02254038	During Parts Fabrication for Mod 12-LDCP-5260 M&TE Used Was Not Calibrated to Nuclear Standards	9/11/2002
CR03111074	10 CFR 50.59 Applicability Review Not Completed for Procedure 54-ISI-135-05	4/21/2003
CR02298007	Load Rejection Capacity is Estimated to be Significantly Less Than Design Basis	10/25/2002
CR02319039	CR01242042 Evaluation Did Not Recognize the Function and Relationship of the VCT Relative to Appendix R Compliance	11/15/2002
CR02350023	RWST Vent Pipe Heat Trace Temp Mod Has Been in Place Too Long	12/26/2002
CR03013024	CAR-CR02235026 Has Technical Errors in the Non-conformance Evaluations as Well as in the Condition Evaluation	1/13/2003
CR03037052	Unit 2 Pressurizer Low Pressure SI Setpoint Appears to Be Non-conservative After Accounting for Instrument Uncertainty	2/6/2003
CR03034043	CR0203784's Non-Conformance Evaluation Had Incorrect Conclusion	2/3/2003
CR03066064	APC Log Review for 50.59 Identified One Item In Place Greater Than 90 Days Requiring 50.59	4/7/2003
CR03130039	During installation of Mod LDCP-5147, U2 East ESW pump Discharge Strainer Valve Disc Rubber Inserts Found Damaged	5/10/2003
CR03143051	SES-2000-0665-00 Appears to be Incomplete	5/23/2003
CR03237057	During the Performance of 12-IHP-6030-IMP-075, Revision 2 for the Unit 2, AB D/G, an OTSC Was Required	8/25/2003
CR03262047	Piping Downstream RHR Flow Control Valves Should be Checked for Wall Thinning	9/19/2003
CR03309030	Evaluate Request to Cancel Preventive Maintenance RTs	11/5/2003
CR03323048	Evaluate Request to Cancel Preventive Maintenance RTs Impacted by Mod 1-MOD-35595	11/19/2003

### Condition Reports Reviewed During the Inspection

<b>Number</b>	<b>Title</b>	<b>Date</b>
CR04029036	Plant Equipment Not Used Has Not Had Abandonment Design Changes Implemented	2/2/2004
CR04049051	Tech Spec LCO 3.3.3.5.1 for Appendix R Remote Shutdown Instrumentation Wording and Referenced Table are Inconsistent	2/18/2004
CR04097017	Revision Summaries for PMP-7030-CAP-001 and PMI-7030 Did Not Document Bases for N/A of 10CFR50.59 Review	4/6/2004
CR04156064	Information Provided to Licensing for 50.59 NRC Submittal Was Incomplete	6/4/2004
CR04170056	Modification Pending Change Not Posted Against Affected Drawing	6/18/2004
CR04175026	Error on Applicability Determination 2003-1497-00	6/23/2004

### Equivalency Evaluations

<b>Number</b>	<b>Title</b>	<b>Revision</b>
EE-2000-0476	EDG Jacket Water Cooler ESW Outlet Safety Valves	Revision 2
EE-2001-0269	ESW Strainer Baskets	Revision 2
EE-2002-0115	CVCS Charging to Reactor Coolant System Containment Isolation Check Valve	Revision 2
EE-2003-0503	EDG Air Start Check Valves	Revision 0
EE-2004-0140	EDG Air Start Check Valve Springs	Revision 0
EE-2004-0282	RHR Flow Control Valves	Revision 0

### Information Change Packages

<b>Number</b>	<b>Title</b>	<b>Revision</b>
ICP-00867	Safety Injection Pump Safety Valve Setpoints	Revision 0
ICP-00884	Revise Plant Setpoint Documents by Removing the Signal and the Tolerance Values for ESW Room Temperature Switches	Revision 0
ICP-00908	EOP Footnotes C.106.1 and C106.2	Revision 0
ICP-00917	Relay Setting Changes for CRD MG Set 2S and 2N ACB SSTs for Replacement Motors	Revision 0

**Modifications**

<b>Number</b>	<b>Title</b>	<b>Revision</b>
1-CMM-30031	Modify Unit 1 Essential Service Water Strainer Backwash Control Circuit	Revision 0
2-CMM-30033	Modify Unit 2 Essential Service Water Strainer Backwash Control Circuit	Revision 0
1-LDCP-5346	Installation of an Isolation Valve Inside Containment on PASS Sample Line in Unit 1	Revision 0
12-LDCP-5260	ESW Pump Upgrades for Reliability	Revision 0
01-MOD-35003	4 KV Motor CT Saturation Resolution	Revision 00

**10 CFR 50.59 Applicability Determinations**

<b>Number</b>	<b>Title</b>	<b>Revision</b>
2002-1681-00	Revision of Procedures 01(02)-OHP-4021-028-014	Revision 0
2003-0657-00	2-DCP 4846 Post Modification Test Procedure	Revision 0
2003-0877-00	Validation of Unit 2, 50.59 Evaluation No. 2003-0326-00 for Unit 1 Modification 1-MOD-35595, Rev. 0	Revision 0
2003-1017-01	Revision to NRC Commitment No. 7337	Revision 1
2003-1497-00	2-MOD-35533, Revision 0	Revision 0
2003-1485-00	Revised Tech Data Book for Open Stroke Testing of 1-QT-506	Revision 0

**10 CFR 50.59 Evaluations**

<b>Number</b>	<b>Title</b>	<b>Revision</b>
2003-0071-00	Electric Hydrogen Recombiner Functional Test	Revision 0
2003-0212-00	Revision of the Unit 2 UFSAR Table 14.1.0-5, Safety Analysis Limit Actuation Setpoint for the Low Pressurizer Pressure Safety Injection from 1800 psig to 1700 psig	Revision 0
2003-0326-00	Unit 2 Power Supply Annunciation in Control Room	Revision 0
2003-0895-00	UCR-1665, Revise Temperatures Around Containment Penetrations Associated with the Alternate RHR Pipelines	Revision 0
2003-1263-00	Use-as-is Evaluation for CR00295013 and CR00279011	Revision 0
2004-0287-00	Revision of UFSAR Section 8.3.2, Low Voltage Power System	Revision 0

## 10 CFR 50.59 Screenings

Number	Title	Revision
2001-1461-00	Revise Temperatures Around Containment Penetrations	Revision 0
2001-1546-00	12-OHP-SP-229, Draining the Spent Fuel Pit Below the Weep Hole	Revision 0
2002-1102-00	12-LDCP-5260, ESW Pump Upgrades for Reliability	Revision 0
2002-1355-00	Replace Reserve Auxiliary Transformers 201 AB and 201 CD with Load Tap Changing Transformers per 2-DCP-5007	Revision 0
2002-1390-00	Use-as-is for CR 99-12399	Revision 0
2002-1415-00	1-LDCP-5315, Installation of Seismic Supports for NESW Lines to Unit 1 AFP Bearing Coolers	Revision 0
2002-1455-00	Revision to 12-EHP-6040-PER-364, 12-EHP-6040-PER-399, 01-EHP-4030-102-359 and 02-EHP-4030-202-359	Revision 0
2002-1478-00	Upgrade Unit 2 Upper and Lower Air Lock Doors-Interlocks and Latching Brackets per 2-LDCP-5127	Revision 0
2002-1483-00	Control Air Compressor High Discharge Temperature Alarm Setpoint per ICP-00874	Revision 0
2002-1535-00	12-FCN-5260-R0-04, ESW Pump Discharge Flange Gasket Change	Revision 0
2002-1710-00	Revise Plant Setpoint Document by Removing the Signal and Tolerance Values for ESW Room Temp Switch per ICP-00884	Revision 0
2003-0139-00	Revision 26 to 02-OHP-4021-001-004, Plant Cooldown from Hot Standby to Cold Shutdown	Revision 0
2003-0188-00	Unit 1 and 2 EDG Jacket Water Pump Upgrade	Revision 0
2003-0660-00	Revision to 02-OHP-4021-055-003, 02-OHP-4024-212, 02-OHP-4024-215, and 02-OHP-4021-071-001	Revision 0
2003-0761-00	2-TM-03-45-R0, Removal of CCW flow to 2-CPN-2 Inner Cooling Coil	Revision 0
2003-0971-00	ESW Pump Coupling Gap Adjustment	Revision 0
2003-1156-00	Valve 1-IRV-310, 311, and 320 Replacement Modification on ECCS System	Revision 0
2003-1187-00	TMOD 12-TM-03-37-R0 Installs a Non-contact Proximity Probe on 1(2)-PP-7E, and 1(2)-PP-7W	Revision 0

**10 CFR 50.59 Screenings**

<b>Number</b>	<b>Title</b>	<b>Revision</b>
2003-1219-00	12-MOD-35623, ESW Pump Bowl Bearing Replacement 1(2)-PP-7E, and 1(2)-PP-7W, Revision 0a	Revision 0
2003-1535-00	Component Cooling Water Pump Use-as-is Interim Disposition for Cutwater Erosion	Revision 0
2004-0184-00	Turbine Driven Auxiliary Feedwater System Test	Revision 0
2004-0187-01	Replace TDAFW Pump Oil Cooler Check Valves with Globe Valves	Revision 1
2004-0211-00	2-CPN-2 CCW Inner Cooling Coil Replacement	Revision 0

**Procedures**

<b>Number</b>	<b>Title</b>	<b>Revision</b>
02-OHP-4024-212	Annunciator Panel No. 212 Response	Revision 4
12-EHP-5040-DES-008	Equivalency Evaluations	Revision 8a
12-EHP-5043-CDG-001	Commercial Grade Dedication	Revision 1
12-EHP-5040-MOD-007	Engineering Modifications	Revision 2
12-EHP-5040-IEE-001	Item Equivalency Evaluations	Revision 1
12-IHP-6030-IMP-027	Control Group and WSI Rack 24V Lambda LZS-750-3 Power Supply Test and Calibration	Revision 16
12-MHP-5021-032-021	Emergency Diesel Engine Air Start Check Valve Maintenance	Revision 4
PMI-2350	UFSAR Revision Process	Revision 0
PMI-5040	Engineering Change Program	Revision 17
PMP-6065-ISP-001	Plant Instrument Setpoint Control Program	Revision 1
PMP-2350-SAR-001	UFSAR Update Process	Revision 1
PMP-2350-SES-001	10CFR50.59 Reviews	Revision 2

**Receipt Inspection Report**

<b>Number</b>	<b>Title</b>	<b>Date</b>
12MMP3120NETS.001	EDG Starting Air Check Valves	10/20/2003

### Receipt Inspection Report

Number	Title	Date
12MMP3120NETS.001	EDG Starting Air Check Valves	2/19/2004

### UFSAR Change Requets

Number	Title	Date
UCR-1554	Revise Temperatures Around Containment Penetrations	4/30/2002
UCR-1656	Changes to UFSAR Section 9.8.3.4	9/6/2002
UCR-1665	Revise Temperatures Around Containment Penetrations Associated with the Alternate RHR Pipelines	9/24/2003
UCR-1676	Table 7-2.7, Engineered Safety Feature Actuation System Response Times	7/30/2003
UCR-1696	Chapter 14, Both Units	12/16/2003

### LIST OF ACRONYMS USED

ADAMS	Agency-Wide Document Access and Management System
AR	Action Request
CFR	Code of Federal Regulations
CR	Condition Report
DRS	Division of Reactor Safety
IMC	Inspection Manual Chapter
IR	Inspection Report
NEI	Nuclear Energy Institute
NRC	United States Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
OA	Other Activities
PRA	Probabilistic Risk Assessment
UFSAR	Updated Final Safety Analysis Report