UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

April 26, 2017

Mr. Joel P. Gebbie
Senior VP and Chief Nuclear Officer
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106

SUBJECT: DONALD C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2 – EVALUATIONS OF CHANGES, TESTS, AND EXPERIMENTS BASELINE INSPECTION REPORT 05000315/2017008; 05000316/2017008

Dear Mr. Gebbie:

On April 13, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an Evaluations of Changes, Tests, and Experiments inspection at your Donald C. Cook Nuclear Power Plant. The enclosed inspection report documents the inspection results, which were discussed on April 13, 2017, with you and members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The NRC inspectors did not identify any findings or violations of more than minor significance.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at http://www.nrc.gov/reading-rm/adams.html and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA Alan Dahbur Acting for/

Robert C. Daley, Chief
Engineering Branch 3
Division of Reactor Safety

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

Enclosure:
Inspection Report 05000315/2017008;
05000316/2017008

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Letter to Joel P. Gebbie from Robert C. Daley dated April 26, 2017

SUBJECT: DONALD C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2 – EVALUATIONS OF CHANGES, TESTS, AND EXPERIMENTS BASELINE INSPECTION REPORT 05000315/2017008; 05000316/2017008

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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:	05000315/2017008; 05000316/2017008
Licensee:	Indiana Michigan Power Company
Facility:	Donald C. Cook Nuclear Power Plant
Location:	Stevensville, MI 49127-9726
Dates:	April 10 – 13, 2017
Inspectors:	George M. Hausman, Senior Engineering Inspector (Lead) Jasmine A. Gilliam, Engineering Inspector Irfan A. Khan, Engineering Inspector
Approved by:	Robert C. Daley, Chief Engineering Branch 3 Division of Reactor Safety

Enclosure

SUMMARY

Inspection Report 05000315/2017008; 05000316/2017008; 04/10/2017 – 04/13/2017; Donald C. Cook Nuclear Power Plant; Evaluations of Changes, Tests, and Experiments.

This report covers a 1-week announced baseline inspection on evaluations of changes, tests, and experiments. The inspection was conducted by Region III based engineering inspectors. The U.S Nuclear Regulatory Commission's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 6, dated July 2016.

NRC-Identified and Self-Revealed Findings

No findings were identified.

Licensee-Identified Violations

No violations were identified.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R17 Evaluations of Changes, Tests, and Experiments (71111.17T)

.1 Evaluation of Changes, Tests, and Experiments

a. Inspection Scope

The inspectors reviewed licensee documentation performed pursuant to Title 10, *Code of Federal Regulations* (CFR), Part 50, Section 59 to determine if the documentation was adequate and that prior U.S. Nuclear Regulatory Commission (NRC) approval was obtained as appropriate. The inspectors also reviewed licensee documentation where personnel had determined that a 10 CFR 50.59 evaluation was not necessary. The inspectors reviewed these documents to determine if:

- the changes, tests, and experiments performed were evaluated in accordance with 10 CFR 50.59, and that sufficient documentation existed to confirm that a license amendment was not required;
- the safety issue requiring the change, tests or experiment was resolved;
- the licensee conclusions for evaluations of changes, tests, and experiments were correct and consistent with 10 CFR 50.59; and
- the design and licensing basis documentation was updated to reflect the change.

The inspectors used, in part, Nuclear Energy Institute 96-07, "Guidelines for 10 CFR 50.59 Implementation," Revision 1, to determine acceptability of the completed evaluations, and screenings. The Nuclear Energy Institute document was endorsed by the NRC in Regulatory Guide 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments," dated November 2000. The inspectors also consulted Part 9900 of the NRC Inspection Manual, "10 CFR Guidance for 10 CFR 50.59, Changes, Tests, and Experiments."

This inspection sample constituted 24 evaluations, screenings, and/or applicability determinations (ADs) as defined in Inspection Procedure 71111.17T.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution

.1 Routine Review of Condition Reports

a. Inspection Scope

The inspectors reviewed several corrective action process documents that identified or were related to 10 CFR 50.59 evaluations and screenings. The inspectors reviewed these documents to evaluate the effectiveness of corrective actions related to screenings and evaluations of changes, tests, and experiments. In addition, corrective action documents written on issues identified during the inspection were reviewed to verify adequate problem identification, and incorporation of the problems into the corrective action system. The specific corrective action documents that were sampled and reviewed by the inspectors are listed in the Attachment to this report.

b. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. Joel Gebbie, and other members of the licensee staff on April 13, 2017. The licensee personnel acknowledged the inspection results presented, and did not identify any proprietary documentation retained.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

K. Baker, Design Engineering Manager
L. Baun, Director Performance Assurance
B. Brookhouse, Site Procedure Group
T. Curtiss, Nuclear Regulatory Assurance
M. Ellett, Nuclear Regulatory Assurance
J. Gebbie, Senior Vice President Chief Nuclear Officer
W. Hodge, Design Engineering
E. Hoskin, Design Engineering / 50.59 Program Owner
S. Lies, Site Vice President
M. Lloyd, Vice President Engineering
B. Neuendorf, Design Engineering / Configuration Management
J. Petro, Director Design Engineering
M. Scarpello, Nuclear Regulatory Assurance Manager

U.S. Nuclear Regulatory Commission

J. Ellegood, Senior Resident Inspector
K. Riemer, Chief Branch 2, Division of Reactor Projects

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened, Closed, and Discussed

None

LIST OF ACRONYMS USED

AD	Applicability Determination
CFR	*Code of Federal Regulations*
NRC	U.S. Nuclear Regulatory Commission

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.

10 CFR 50.59 Documentation Reviewed

Number	Description or Title	Revision
AD 50.59 Tracking No. 2014-0273-00	Temporary Modification to Connect a Differential Pressure Test Transmitter to the Upper and Lower Level Instrument Sensing Line Bellows for 2-DLC-352 (Steam Generator Startup Blowdown Flashtank TK-49 Level Control Transmitter)	07/08/14
AD 50.59 Tracking No. 2016-0325-00	Six (6) Staging Permits for Staging of Items in the Auxiliary Building to Support Replacement of Unit 2 CTS Heat Exchangers	08/23/16
AD 50.59 Tracking No. 2016-0325-01	Six (6) Staging Permits for Staging of Items in the Auxiliary Building to Support Replacement of Unit 2 CTS Heat Exchangers	03/08/17
AD 50.59 Tracking No. 2016-0364-00	AD: Staging/Storage Permit for Staging Scaffolding Materials in the Unit 1 Auxiliary Building 650' Elevation (WO# 55487328)	08/26/16
AD 50.59 Tracking No. 2016-0364-01	AD: Staging/Storage Permit for Staging Scaffolding Materials in the Unit 1 Auxiliary Building 650' Elevation (WO# 55487328)	11/09/16
SS-SE-2010-0103	Boric Acid Tank Heaters Unit 1 EDG Load Margin Recovery / Boric Acid Tank Heaters Unit 2 EDG Load Margin Recovery (1-OHP-4024-109 / 12-OHP-4021-005-001)	0
SS-SE-2014-0022	50.59 Screening (12-TM-14-09-R0)	0
SS-SE-2014-0051	Upgrades to Unit 1 Manipulator Crane (EC-52313)	2
SS-SE-2014-0135	Add Time Delay to Unit 1 Flux Deviation Alarms (ICP-01572)	0
SS-SE-2014-0183	Power Supply Upgrade for Turbine Building 240/50 Ton Crane and New Turbine Building 250/60 Ton Crane (EC-53003)	0
SS-SE-2014-0270	Changing DCS Setpoint for Unit 1 East and West Main Feed Pump Turbine Condenser Low Vacuum Alarm (ICP-01591)	0
SS-SE-2014-0273	Connect a Differential Pressure Test Transmitter to the Upper and Lower Level Instrument Sensing Line Bellows for 2-DLC-352 (AD 2014-0273-00 & 2-TM-14-41-R0)	07/08/14
SS-SE-2014-0454	Revise Unit Ice Basket Weight Acceptance Criteria for Unit 1 Cycle 26 (EC-53931)	0
SS-SE-2014-0469	Unit 1 Control Room Emergency Ventilation Surveillance (1-EHP-4030-128-229)	0
SS-SE-2014-0472	Connect a Differential Pressure Test Transmitter to the Upper and Lower Level Instrument Sensing Line Bellows for 2-DLC-352 (2-TM-14-41-R0)	10/09/14
SS-SE-2014-0488	Adjustment of Instantaneous Trip on the Battery Chargers Supply Feeder and Internal Breakers to Reduce Spurious Trips on Inrush (ICP-01478)	1
SS-SE-2015-0049	Revise Unit 2 Lower RCP#1 Seal Leakoff High Flow Alarm Setpoint (ICP-01536)	0

10 CFR 50.59 Documentation Reviewed

Number	Description or Title	Revision
SS-SE-2015-0059	Compensatory Measures (AR 2015-2012)	0
SS-SE-2015-0307	Revise Unit 1 Ice Basket Weight Acceptance Criteria for U1C27 (EC-54314)	0
SS-SE-2015-0322	Implementation of Unit 1 LOCA Containment Integrity Analysis Using WCOBRA/TRAC Mass Energy Releases (EC-54591)	0
SS-SE-2015-0479	Compensatory Action in Support of Component Cooling Water Passive Failure (12-TM-15-49)	2
SS-SE-2015-0509	Change TS 3.7.3 Bases to Remove MFRV as AFW Pressure Boundary (TS 3.7.3 & 0P-1-5105D-10)	0
SS-SE-2016-0185	Change 1/2 – DCR-201/203 to Normal Open (EC-54959)	0
SS-SE-2016-0188	Setpoint Change to 1-SG-6-6 East Main Feed Pump Turbine (EMFPT) Bearing Metal No. 2 High Temperature Alarm (ICP-01718)	0

CORRECTIVE ACTION PROGRAM DOCUMENTS INITIATED DURING INSPECTION

Number	Description or Title	Date
AR 2017-3671	Work Order Package 55381586-10 Never Completed	04/07/17
AR 2017-3712	Emergency Service Water / Component Cooling Water Temporary Makeup Jumper Not Qualified Safety Related	04/10/17
AR 2017-3783	NRC Observation 1 from 2017 NRC 50.59 Inspection	04/11/17
AR 2017-3838	NRC Observation on Digital Software QA (NRC 50.59 Inspection)	04/11/17
AR 2017-3883	NRC 50.59 Inspection Observation: Quality of Information Contained in Temp Mod 50.59 Evaluation	04/13/17
AR 2017-3885	NRC 50.59 Inspection Observation: Review Team Comment on Time Critical Actions Not Incorporated	04/13/17

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

Number	Description or Title	Date
AR 2014-4181	Potential 50.59 Gaps in Temporary Configuration Changes	03/28/14
AR 2015-14681	2015 CDBI Identified 1-2-UNC-339 Calc 1 Needs to be Revised	11/11/15
AR 2015-2012-01	NSAL-15-1 FQ Technical Specification Surveillance Issue	03/06/15
AR 2015-2012-02	NSAL-15-1 FQ Technical Specification Surveillance Issue	03/06/15
AR 2015-2012-03	NSAL-15-1 FQ Technical Specification Surveillance Issue	03/06/15
AR 2016-7569	50.59 Screen Should Have Gone to Evaluation	06/27/16
AR 2017-1873	50.59 Products Failed Review Team	02/15/17
AR 2017-1964	50.59 Program Identified Cognitive Trend	02/17/17

DRAWINGS

Number	Description or Title	Revision
0P-1-5105D-10	Flow Diagram Steam Generating System Unit No. 1	10
0P-1-98125-13	Feed Pumps East & West Vibration Elementary Diagram	13
0P-12-5137A	Flow Diagram WDS Vents and Drains	34

PROCEDURES

Number	Description or Title	Revision
1-EHP-4030-128-229	Unit 1 Control Room Emergency Ventilation Surveillance	18

PROCEDURES

Number	Description or Title	Revision
1-OHP-4030-114-011	Containment Isolation and IST Valve Operability Test Result for 1/2-DCR-201/203	29
1-OHP-4024-109	Annunciator #109 Response: Boric Acid	19
1-OHP-4024-118	Annunciator #118 Drop 13 Response: Main and FPT, 13 East FP/FPT Bearing Oil Rec Temp High (Page 17 of 170)	33
1-OHP-4024-DCS-MFP Drop E-35	DCS Annunciator Response: Main Feed Pump, E MFPT Low Cond Vacuum (Page 58 of 165)	9
1-OHP-4024-DCS-MFP Drop W-35	DCS Annunciator Response: Main Feed Pump, W MFPT Low Cond Vacuum (Page 124 of 165)	9
12-EHP-4030-002-330	Surveillance of Core Power Distribution Limits	6
12-OHP-4021-005-001	Boric Acid Transfer System Operation	63
12-EHP-4030-010-262	ICE Condenser Surveillance and Operability Evaluation	15

OTHER DOCUMENTS

Number	Description or Title	Revision
020181	Board, Printed Circuit, Synchronization Board Upgrade 50/60Hz	0
024403	Diode, Semiconductor, 600 Volt, 70 Amp, D2 & D3, with 7.5 in. Extension Lead and C130-14 Terminal	0
025110	Commercial Grade Dedication Evaluation	0
809-0100-4001	Reference Manual, Appendix A: Reference Data	JA
813-0600-4001	Rosemount Digital Pressure Transmitter Model 3051CD0 Draft Range	12A
02-TM-14-41-R0	Unit 2 Startup Blowdown Level Control Instrument 2-DLC-352	07/08/14
12-TM-14-09-R0	Reduce the Setpoint of Bleeder Relief Valve 12-SV-239 from 341 psig to 300 psig to Provide the 7½ Ton Tank $C0_2$ Backup Evaporative Cooling Function at 300 psig Rather Than 341 psig	01/21/14
12-TM-15-49-R3	Install Mechanical Jumper to Connect the Emergency Service Water System to the Component Cooling Water System	3
EC-52313	Upgrades To Unit 1 Manipulator Crane (1-QM-90)	2
EC-53931	Revise Unit 1 Ice Basket Weight Acceptance Criteria for Unit 1 Cycle 26	0
EC-54959	Change 1/2-DCR-201 and 1/2-DCR-203 to Normally Open	0
GT 2013-5397	Reconcile SBO License and Design Basis with EC-52128	04/11/13
GT 2014-7927-1	Implement ICP-01591 in the Unit 1 Simulator	07/07/14
GT 2017-1764-1	Update Simulator for ICP-01591, Rev. 2 for DCS Changes	02/15/17
ICP-01478	Adjustment of the Instantaneous Trip on Battery Chargers Supply-Feeder and Internal Breakers to Reduce Spurious Trips on Inrush	1
ICP-01536	Revise the Unit 2 RCP Seal Leakoff High Flow Alarm Setpoint to Provide Additional Margin in Operator Response for the Time Critical Action Associated with the Loss of RCP Seal Cooling	0
ICP-01572	Add Time Delay to Unit 1 Flux Deviation Alarms	0
ICP-01591	Unit 1 Main Feed Pump Turbine Condenser Low Vacuum Alarm Setpoint Change	2
ICP-01718	Revise the Setpoint for Alarm 1-SG-6-6, EMFPT Metal No. 2 Bearing from 205ºF to 220ºF to Eliminate a Potential Standing Alarm During Current Main Feed Pump Operation	04/30/16

OTHER DOCUMENTS

Number	Description or Title	Revision
MD-12-RCS-033-N	Reactor Coolant Pump Trip Operator Response Margin with Westinghouse Shutdown Seal	2
NSAL-15-1	Heat Flux Hot Channel Factor Technical Specification Surveillance	02/09/15
PE-EVAL00023285	Steam Generator Blowdown Four-Channel Flow Transmitter Replacement Acoustical Processing Unit Circuit Board	0
PWROG-14001-P	Probabilistic Risk Assessment Model for the Generation III Westinghouse Shutdown Seal	1
WCAP-17100-P, Supplement 1	Probabilistic Risk Assessment Model for the Generation III Westinghouse Shutdown Seal Supplemental Information for All Domestic Reactor Coolant Pump Models	0
WO 55381586 11	Work Order - Unit 2 SG Blowdown Level Control Def MTI: Remove T-Mod Test Gauges from Steam Generator Blowdown	11/13/14