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

June 2, 2016

Mr. Joel 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
NRC TEMPORARY INSTRUCTION 2515/191, MITIGATION STRATEGIES, SPENT FUEL POOL INSTRUMENTATION AND EMERGENCY PREPAREDNESS
REPORT 05000315/2016008; 05000316/2016008

Dear Mr. Gebbie:

On May 12, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed Temporary Instruction (TI) 2515/191, Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/staffing/Multi-Unit Dose Assessment Plans inspection at your Donald C. Cook Nuclear Power Plant, Units 1 and 2. The NRC inspection team discussed the results of this inspection with you and other members of your staff. The inspection team documented the results of this inspection in the enclosed inspection report.

The inspection examined activities conducted under your license as they relate to the implementation of mitigation strategies and spent fuel pool instrumentation orders (EA–12–049 and EA–12–051) and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans, your compliance with the Commission's rules and regulations, and with the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and records, observation of activities, and interviews with station personnel.

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

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, “Public Inspections, Exemptions, Requests for Withholding,” 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 Publicly Available Records (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Ann Marie Stone, Team Leader
Technical Support Section

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

Enclosure:
IR 05000315/2016008; 05000316/2016008

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	05000315; 05000316
License Nos:	DPR–58; DPR–74
Report No:	05000315/2016008; 05000316/2016008
Licensee:	Indiana Michigan Power Company
Facility:	Donald C. Cook Nuclear Power Plant, Units 1 and 2
Location:	Bridgman, MI
Dates:	April 25 through May 12, 2016
Inspectors:	B. Bartlett, Project Engineer, Region III (Team Lead) J. Boettcher, Resident Inspector, Palisades J. Mateychick, Senior Reactor Inspector, Region IV S. Sheldon, Project Engineer, Region III J. Havertape, Region III, Reactor Engineer L. Kozak, Senior Reactor Analyst, Region III (Observer) M. Humberstone, Senior Reactor Analyst, HQ (Observer)
Approved by:	A. Stone, Team Leader Technical Support Section

Enclosure

SUMMARY

Inspection Report (IR) 05000315/2016008, 05000316/2016008; 04/25/2016 – 04/29/2016; Donald C. Cook Nuclear Power Plant, Units 1 and 2: Temporary Instruction 2515/191 Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/staffing/Multi-Unit Dose Assessment Plans.

This inspection was performed by three NRC regional inspectors and one resident inspector. No findings of significance or violations of NRC requirements were identified during this inspection. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG–1649, "Reactor Oversight Process," dated February 2014.

NRC-Identified and Self-Revealing Findings

None

Licensee-Identified Violations

None

REPORT DETAILS

4. OTHER ACTIVITIES

4OA5 Other Activities (TI 2515/191)

The objective of Temporary Instruction (TI) 2515/191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans," is to verify that licensees have adequately implemented the mitigation strategies as described in the licensee's Final Integrated Plan Revision 0 (ADAMS Accession No. ML15169A106) and Revision 1 (ADAMS ML15280A023) and the NRC's plant safety evaluation (ADAMS ML15264A851) and to verify that the licensees installed reliable water-level measurement instrumentation in their spent fuel pools. The purpose of this TI was also to verify the licensees had implemented Emergency Preparedness (EP) enhancements as described in their site-specific submittals and NRC safety assessments, including multi-unit dose assessment capability and enhancements to ensure that staffing is sufficient and communications can be maintained during such an event.

The inspection verified that plans for complying with NRC Orders EA–12–049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (ADAMS Accession No. ML12229A174) and EA–12–051, Order Modifying Licenses With Regard to Reliable Spent Fuel Pool Instrumentation (ADAMS Accession No. ML12056A044) are in place and are being implemented by the licensee. Additionally, the inspection verified implementation of staffing and communications information provided in response to the March 12, 2012, request for information letter and multiunit dose assessment information provided per COMSECY–13–0010, Schedule and Plans for Tier 2 Order on Emergency Preparedness for Japan Lessons Learned, dated March 27, 2013, (ADAMS Accession No. ML12339A262).

The team discussed the plans and strategies with plant staff, reviewed documentation, and where appropriate, performed plant walk downs to verify that the strategies could be implemented as stated in the licensee's submittals and the NRC staff prepared safety evaluation. For most strategies, this included verification that the strategy was feasible, procedures and/or guidance had been developed, training had been provided to plant staff, and required equipment had been identified and staged. Specific details of the team's inspection activities are described in the following sections.

1. Mitigation Strategies for Beyond-Design Basis External Events

a. Inspection Scope

The team examined the licensee's established guidelines and implementing procedures for the beyond-design basis mitigation strategies. The team assessed how the licensee coordinated and documented the interface/transition between existing off-normal and emergency operating procedures with the newly developed mitigation strategies. The team selected a number of mitigation strategies and conducted plant walk downs with licensed operators and responsible plant staff to assess: the adequacy and

completeness of the procedures; familiarity of operators with the procedure objectives and specific guidance; staging and compatibility of equipment; and the practicality of the operator actions prescribed by the procedures, consistent with the postulated scenarios.

The team verified that a preventive maintenance program had been established for the Diverse and Flexible Coping Strategies (FLEX) portable equipment and that periodic equipment inventories were in place and being conducted. Additionally, the team examined the introductory and planned periodic/refresher training provided to the Operations staff most likely to be tasked with implementation of the FLEX mitigation strategies. The team also reviewed the introductory and planned periodic training provided to the Emergency Response Organization personnel. Documents reviewed are listed in the attachment.

b. Assessment

Based on samples selected for review, the inspectors verified that the licensee satisfactorily implemented appropriate elements of the FLEX strategy as described in the plant specific submittal(s) and the associated safety evaluation and determined that the licensee is generally in compliance with NRC Order EA–12–049. The inspectors verified that the licensee satisfactorily:

- developed and issued FLEX Support Guidelines (FSG) to implement the FLEX strategies for postulated external events;
- integrated their FSGs into their existing plant procedures such that entry into and departure from the FSGs were clear when using existing plant procedures;
- protected FLEX equipment from site-specific hazards;
- developed and implemented adequate testing and maintenance of FLEX equipment to ensure their availability and capability;
- trained their staff to assure personnel proficiency in the mitigation of beyond-design basis events; and
- developed the means to ensure that the necessary off-site FLEX equipment would be available from off-site locations.

The inspectors verified that non-compliances with current licensing requirements, and other issues identified during the inspection were entered into the licensee's corrective action program as appropriate.

c. Findings

No findings were identified.

2. Spent Fuel Pool Instrumentation

a. Inspection Scope

The team examined the licensee’s newly installed spent fuel pool instrumentation. Specifically, the inspectors verified the sensors were installed as described in the plant specific submittals and the associated safety evaluation and that the cabling for the

power supplies and the indications for each channel are physically and electrically separated. Additionally, environmental conditions and accessibility of the instruments were evaluated. Documents reviewed are listed in the attachment.

b. Assessment

Based on samples selected for review, the inspectors determined that the licensee satisfactorily installed and established control of the spent fuel pool (SFP) instrumentation as described in the plant specific submittal(s) and the associated safety evaluation and determined that the licensee is generally in compliance with NRC Order EA–12–051. The inspectors verified that the licensee satisfactorily:

- installed the SFP instrumentation sensors, cabling and power supplies to provide physical and electrical separation as described in the plant specific submittal(s) and safety evaluation;
- installed the SFP instrumentation display in the location, environmental conditions and accessibility as described in the plant specific submittal(s); and
- trained their staff to assure personnel proficiency with the maintenance, testing, and use of the SFP instrumentation.

The inspectors verified that non-compliances with current licensing requirements, and other issues identified during the inspection were entered into the licensee's corrective action program.

c. Findings

No findings were identified.

3. Staffing and Communication Request for Information

a. Inspection Scope

Through discussions with plant staff, review of documentation and plant walk downs, the team verified that the licensee has implemented required changes to staffing, communications equipment and facilities to support a multi-unit extended loss of offsite power (ELAP) scenario as described in the licensee's staffing assessment and the NRC safety assessment. The team also verified that the licensee has implemented multi-unit dose assessment (including releases from spent fuel pools) capability using the licensee's site-specific dose assessment software and approach as described in the licensee's multi-unit dose assessment submittal. Documents reviewed are listed in the attachment.

b. Assessment

The inspectors reviewed information provided in the licensee's multi-unit dose submittal and in response to the NRC's March 12, 2012, request for information letter and verified that the licensee satisfactorily implemented enhancements pertaining to Near-Term Task Force Recommendation 9.3 response to a large scale natural emergency event that results in an extended loss of all AC power to all site units and impedes access to the site. The inspectors verified the following:

- licensee satisfactorily implemented required staffing change(s) to support a multi-unit ELAP scenario;
- EP communications equipment and facilities are sufficient for dealing with a multi-unit ELAP scenario; and
- implemented multi-unit dose assessment capabilities (including releases from spent fuel pools) using the licensee's site-specific dose assessment software and approach.

The inspectors verified that non-compliances with current licensing requirements, and other issues identified during the inspection were entered into the licensee's corrective action program.

4OA6 Management Meeting

.1 Exit Meeting Summary

On May 12, 2016, the inspectors presented the inspection results to Mr. J. Anderson of the licensee's staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

J. Gebbie, Chief Nuclear Officer
S. Lies, Site Vice-President
M. Scarpello, Regulatory Assurance Manager
R. Wynegar, Regulatory Assurance
S. Mitchell, Regulatory Assurance Supervisor
V. Gupta, Performance Improvement Supervisor
J. Ross, Plant Manager
L. Baun, PA Director
K. Simpson, EP Supervisor
S. Wiederwax, EP
D. Etheridge, Ops
R. Strasser, Severe Accident Management Team (SAMT)
D. Burris, SAMT
L. Bush, SAMT
J. Anderson, SAMT
B. Lewis, Ops
J. Cross, Maintenance

U.S. Nuclear Regulatory Commission

J. Cameron, Branch Chief, Reactor Projects Branch 4
T. Brown, Branch Chief, Japan Lessons Learned Division

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

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.

Procedures

1–OHP–4021–082–036; “Removal and Restoration of Power to 250V DC Distribution Cabinet 1–DBOP; Revision 2
1–OHP–4022–001–007; “Earthquake;” Revision 21
12–OHP–4022–001–010; “Severe Weather;” Revision 17
1–OHP–4025–LS–3; “Steam Generator 2/3 Level Control;” Revision 5
1–OHP–4023–E–0; “Reactor Trip or Safety Injection;” Revision 39
1–OHP–4023–ECA–0.0; “Loss of All AC Power;” Revision 34
1–OHP–4027–FSG–1; “Long Term RCS Inventory Control;” Revision 2
1–OHP–4027–FSG–2; “Alternate AFW Suction Source;” Revision 1
1–OHP–4027–FSG–3; “Alternative Low Pressure Feedwater;” Revision 2
1–OHP–4027–FSG–4; “ELAP Power Management;” Revision 3
1–OHP–4027–FSG–5; “Initial Assessment and FLEX Equipment Staging;” Revision 2
1–OHP–4027–FSG–6; “Alternate CST Makeup;” Revision 1
1–OHP–4027–FSG–7; “Loss of Vital Instrument or Control Power;” Revision 2
1–OHP–4027–FSG–8; “Alternate RCS Boration;” Revision 2
1–OHP–4027–FSG–9; “Low Decay Heat Temperature Control;” Revision 1
1–OHP–4027–FSG–10; “Passive RCS Injection Isolation;” Revision 1
1–OHP–4027–FSG–14; “Shutdown RCS Makeup;” Revision 2
1–OHP–4027–FSG–201; “Alternate AFW Suction Source Equipment Deployment;” Revision 3
1–OHP–4027–FSG–301; “Alternative Low Pressure Feedwater Equipment Deployment;” Revision 2
1–OHP–4027–FSG–401; “ELAP Power Management Equipment Deployment;” Revision 2
1–OHP–4027–FSG–601; “Alternate CST Makeup Equipment Deployment;” Revision 1
1–OHP–4027–FSG–801; “RCS Boration/Makeup Equipment Deployment;” Revision 1
1–OHP–4027–FSG–1401; “Shutdown RCS Makeup Equipment Deployment;” Revision 2
2–OHP–4023–ECA-0.0; “Loss of All AC Power;” Revision 34
2–OHP–4027–FSG–1; “Long Term RCS Inventory Control;” Revision 1
2–OHP–4027–FSG–2; “Alternate AFW Suction Source;” Revision 2
2–OHP–4027–FSG–3; “Alternate Low Pressure Feedwater;” Revision 2
2–OHP–4027–FSG–4; “ELAP Power Management;” Revision 3
2–OHP–4027–FSG–5; “Initial Assessment and FLEX Equipment Staging;” Revision 1
2–OHP–4027–FSG–6; “Alternate CST Makeup;” Revision 1
2–OHP–4027–FSG–7; “Loss of Vital Instrument or Control Power;” Revision 1
2–OHP–4027–FSG–8; “Alternate RCS Boration;” Revision 1
2–OHP–4027–FSG–9; “Low Decay Heat Temperature Control;” Revision 1
2–OHP–4027–FSG–10; “Passive RCS Injection Isolation;” Revision 1
2–OHP–4027–FSG–14; “Shutdown RCS Makeup;” Revision 1

2–OHP–4027–FSG–201; “Alternate AFW Suction Source Equipment Deployment;” Revision 1
2–OHP–4027–FSG–201; “Alternate AFW Suction Source Equipment Deployment;” Revision 2
2–OHP–4027–FSG–301; “Alternative Low Pressure Feedwater Equipment Deployment;” Revision 1
2–OHP–4027–FSG–401; ELAP Power Management Equipment Deployment; Revision 2
2–OHP–4027–FSG–601; “Alternate CST Makeup Equipment Deployment;” Revision 0
2–OHP–4027–FSG–801; “RCS Boration/Makeup Equipment Deployment;” Revision 2
2–OHP–4027–FSG–1401; “Shutdown RCS Makeup Equipment Deployment;” Revision 1
12–OHP–4022–018–001; “Loss of Spent Fuel Pit Cooling;” Revision 22
12–OHP–4027–FSG–2BD; “Alternate AFW Suction Source;” Revision 0
12–OHP–4027–FSG–11; “Alternate SFP Makeup and Cooling;” Revision 3
12–OHP–4027–FSG–311; “FLEX Lift Pump Operation;” Revision 1
12–OHP–4027–FSG–312; “FLEX Booster Pump Operation;” Revision 2
12–OHP–4027–FSG–412; “FLEX 250/350 KW DG Operation;” Revision 0
12–OHP–4027–FSG–501; “FLEX Equipment Staging;” Revision 3
12–OHP–4027–FSG–501; “FLEX Equipment Staging;” Revision 4
12–OHP–4027–FSG–511; “FLEX Equipment Refueling Operation;” Revision1
12–OHP–4027–FSG–811; “FLEX Boric Acid Pump Operation;” Revision 0
12–OHP–4027–FSG–1101; “Alternate SFP Makeup Equipment Deployment;” Revision 2
12–OHP–5030–FSG–322; “FLEX Booster Pump Functional Test;” Revision 1
12–OHP–5030–FSG–523; “FLEX Equipment Inventory and Checks;” Revision 7
12–IHP–6030–018–001; “Spent Fuel Pool Level Indication Diagnostic Checks;” Revision 1
12–EHP–5040–MOD–009; “Engineering Change Reference Guide;” Revision 58
OHI–4023, “Abnormal/Emergency Procedure User’s Guide,” Revision 37
PMP–4027–FSG–001; “FSG Maintenance;” Revision 4
PMP–4027–FSG–002; “FLEX Equipment Program;” Revision 4
PMP–4027–FSG–003; “FLEX Program;” Revision 2
RMA-4027–FSG–004; “Final Integrated Plan Management;” Revision 0
PMI–4023; “DC Cook Nuclear Plant Accident Procedure Program;” Revision 5
PMI–5030; “Preventive Maintenance;” Revision 15
MMDG.401; “In-Storage preventive Maintenance Instruction “PUMPS”; Revision 2
PMID 00126927-03; “Booster Pump Capability Test;” No date
PMP–4100-SDR-001, “Plant Shutdown Safety and Risk Management,” Revision 39
PMP–4027–FSG–003, “FLEX Program;” Revision 2
OHI–4000; “Conduct of Operations: Standards;” Revision 103
TPD–600–FLEX, “FLEX Training Program Description;” Revision 2
PMP–2080–EPP–100; “Emergency Response;” Revision 33
RMT–2080–EOF–002, “Emergency Termination and Recovery;” Revision 6
RMT–2080–EOF–001; “Activation and Operation of the EOF;” Revision 34
RO–C–EOP15; “FLEX Response;” Revision 0
“SAFER Response Plan for Donald C. Cook Nuclear Plant;” Revision 3
SPP–2060–SFI–308; “Tests of Security Related Equipment;” Revision 3

Action Requests – NRC Identified

GT 2016–5194; FSG–401 Attachment 3 Title Error; 04/25/16
AR 2016–5222; FLEX Support Guide; Add Overall Map and Deployment Path; 04/25/16
AR 2016–5280; Copy of FSG–511 Located at ISFSI Fuel Mule Not Current; 04/26/16

AR 2016–5281; DC Deep Load Shed Breakers are Inconsistently Labeled; 04/26/16
AR 2016–5287; Tracking of CAT Loaders While they are in Use; 04/26/16
AR 2016–5288; Assess if Recovery Procedure EOF-002 Can be Improved; 04/26/16
AR 2016–5290; Procedure 1–OHP–4027–FSG–201, Figure 3, Depicts a Hose Storage Location Incorrectly; 04/26/16
AR 2016–5291; Mismatch Between Procedure and Breaker Label; 04/26/16
AR 2016–5292; Procedure 2–OHP–4027–FSG–201, Figure 3, Depicts a Hose Storage Location Incorrectly; 04/26/16
AR 2016–5293; FLEX Storage Box Stored too Near to TDAFWP Piping; 04/26/16
AR 2016–5317; Add direction to FSG–311 to Provide Strainer Backwash Direction; 04/27/16
AR 2016–5334; Error in FLEX Equipment Staging Procedure on Alternate Power Source; 04/27/16
AR 2016–5339; Assess the Deep Load Shed Procedure to see if Operating Crews can be Given Additional Time for Decision Making; 04/27/16
AR 2016–5340; Procedures 1(2)-OHP–4027–FSG–6; “Alternative CST Makeup;” does not include use of the CST Crosstie Valve, 04/27/16
AR 2016–5343; Add Labeling for FLEX to Several Hose Reels; 04/27/16
AR 2016–5344; ECA 0.0 Takes the Time to Strip Loads off of Buses that are not Required; 04/27/16
AR 2016–5356; Improve the Usability and Efficiency of Various Strategy Options; 04/27/16
AR 2016–5397; Evaluate if Establishing Temperature Checks in the FLEX Storage Building is Appropriate; 04/28/16
AR 2016–5398; Prioritization of Hydrogen Ignitor Energization Enhancement; 04/28/16
AR 2016–5374; A Non-installed Valve was Incorporated into 1–OHP–4027–FSG–2; 04/28/16

ARs reviewed

AR 2014–14395; Flood Hazard Reevaluation; 11/12/14
AR 2014–14592; BAST Will Not Meet 2X Seismic Re-evaluation; 11/12/14
AR 2015–2319; Spent Fuel Pool Level Indication Power Quality; 02/17/15
AR 2015–3609; Spent Fuel Pool Level Indication(a)(1) Monitoring; 03/18/15
AR 2015–6904; Spent Fuel Pool Level Indication Digital Display Not Functioning; 05/20/15
AR 2015–8090; Reduce FLEX Equipment Pre-Staging; 06/17/15
AR 2015–14002; TRM 8/11/2 Entry Missed for FLEX Equipment Connection; 10/28/15
AR 2015–9532; Improve the Vent Path Size for Shutdown RCS Makeup; 07/21/15
AR 2015–9534; The FLEX Procedures Contain Core Cycle Specific Boron Concentration Values; 07/21/15
GT 2015–9535; Adverse Containment Values Associated with FSGs; 07/21/15
GT 2015–9536; Revise Procedure Direction Regarding TDAFWP Control; 07/21/16
AR 2015–9649; Fish Trap Cleaning Changed from a 2Y to a 1Y; 7/24/2015
AR 2016–4140; Add Guidance on TDAFP Suction Supply Pressure; 04/06/16
AR 2016–4570; TRM Change Presented to PORC was Inconsistent with OE; 04/13/16
GT 2014–10503; PMCR - FLEX Boric Acid Pump; 09/07/14
GT 2015–4988; PMCR - FLEX Blended RCS Makeup Pumps; 04/08/15
GT 2014–10502; PMCR - FLEX Booster Pump; 09/07/14
GT 2014–12877; PMCR - FLEX Lift Pumps; 10/18/14
GT 2014–9664; PMCR - FLEX Diesel Generators; 08/17/14

GT–2013–4702–54; Track Updating CNP's Drill and Exercise Schedule After INPO 88–019 is Revised and Issued
GT–2013–4702–55; Implement the FLEX Drill Demonstration Objectives
GT–2016–1728; GT to Perform Impact Review of NEI 12–06 Rev 2; 02/12/16

FLEX Training Documents

FX–C–00; "FLEX Overview;" Revision 3
FX–C–OP00; "' Loss of AC Power-FLEX Strategies;" Revision 0
FX–C–OP01; "Core Cooling – SG Feedwater Supply;" Revision 3
FX–C–OP03; "RCS Makeup;" Revision 2
FX–C–OP05; "Spent Fuel Cooling;" Revision 4
FX–C–OP06; "Long Term Core and Containment;" Revision 3
FX–C–OP07; "FLEX Modes 5 and 6;" Revision 5
FX–I–002; "FLEX Equipment;" Revision 1
FX–I–003; "FLEX Update;" Revision 0
FX–I–005; "Unit 2 FLEX Implementation;" Revision 0

Calculations reviewed

MD–12–CST–001–N; Condensate Storage Tank Usable Volume and Vortexing Calculation; Revision 1
MD–12–FLEX–002–S; DC Cook FLEX Core Cooling and SFP Makeup Hydraulic Analysis; Revision 1
Calculation 13Q3208–CAL–001; Seismic Hazard and Expedited Seismic Evaluation Process Seismic Services For DC Cook Nuclear Plant; Revision 0
Calculation 13Q3208–CAL–003; DC Cook FLEX Haul Path Soil Liquefaction Triggering Evaluation; Revision 1

Drawings reviewed

OP–12–5148A–27; Flow diagram auxiliary building ventilation; Revision 27
OP–1–5106A–61; Flow diagram auxiliary feedwater; Revision 61
OP–1–5113–100; Flow diagram essential service water; Revision 100
OP–1–5106A–61; Aux Feedwater; Revision 61
OP–2–5106A–56; Aux Feedwater; Revision 56
OP–12–98315; Spent Fuel System Control Elementary Diagram; Revision 15
1–5220–2; U1 FLEX Portable Equipment; Revision 2

Modifications

EC 0000053227; Radio Communications Systems Upgrades; Revision 0
EC 0000052892; Spent Fuel Pool Level for NRC Order EA–12–051; Revision 0
EC 53165; Unit 1 FLEX Generator to 600V MCC ABD–B for N-Train Charger (1–EL–03); Revision 0

Work Orders

55465872–01; MTRI, 1–RLI–502–CRI, Replace Unit; 06/09/15
1–0410–15; SFPI Installation Checklist; 08/26/14
55462958–01; Large FLEX Diesel Driven Booster Pump Functional Test; 09/25/15

55455157–01; Booster Pump Capability Test; Model WO
55431240–04; 2–EL–01 FLEX Generator Phase Checks; 03/17/15
55431244–20; 2–EL–03 FLEX Generator Phase Checks; 02/16/15
55432175–14; Perform Phase Rotation Accumulator Tank #4 Outlet Valve; 04/08/15
55432175–15; Perform Phase Rotation Accumulator Tank #2 Outlet Valve; 04/08/15
55432175–16; Perform Phase Rotation Accumulator Tank #1 Outlet Valve; 04/08/15
55432175–17; Perform Phase Rotation Accumulator Tank #3 Outlet Valve; 04/08/15
55432305–04; Perform (Bump) Rotation for Both BA Pump/Motors; 09/19/14
55437624–05; Perform Phase Rotation Check of 1–11D2; 09/28/14
55437627–44; Perform Run In on 5 Flex Diesel Generators and Document Phase Rotation; 06/30/14
55437627–58; Perform Load Testing on 5 Flex Diesel Generators and Document Loading Characteristics; 09/18/14
55437627–69; 480/600VAC Step up XFMR Testing; 10/12/14
55437696–17; Perform Phase Rotation Test at 1–EZC–A–5C; 10/14/14
55437696–18; Perform Phase Rotation Test at 1–EZC–B–1C; 10/14/14
55437696–19; Perform Phase Rotation Test at 1–EZC–C–5C; 10/14/14
55437696–20; Perform Phase Rotation Test at 1–EZC–D–1C; 10/14/14
55263614–04; Install Winterization: (Non-Power Block)

Miscellaneous Documents

GT–2016–0604-6; “FLEX TSA Validation Documentation – Validation Item Results”

Letter AEP–NRC–2013–13; “Donald C. Cook Nuclear Plant Unit **I** and Unit 2 Overall Integrated Plan In Response to March 12, 2012, Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA–12–049);” Dated February 27, 2013

Letter AEP–NRC–2015–22; “Donald C. Cook Nuclear Plant Units 1 and 2 Compliance with March 12, 2012, NRC Order Regarding Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA–12–049);” Dated June 16, 2015

Letter AEP–NRC–2015–83; “Donald C. Cook Nuclear Plant Units 1 and 2 Revision 1 of Final Integrated Plan Regarding March 12, 2012, U.S. Nuclear Regulatory Commission Order Regarding Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA–12–049);” Dated October 1, 2015

Letter AEP–NRC–2015–107; “Donald C. Cook Nuclear Plant Units 1 and 2 Corrected Values in Final Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events and Spent Fuel Pool Level Indication Status Report;” Dated November 6, 2015

12–OHP–4027–FSG–2BD; “Plant Specific Background Document, Alternate AFW Suction Source;” Revision 0

IC–C–F001; Flex Spent Fuel Pool Instrumentation Training Module; Revision 0
RQ–C–3863; Licensed Operator Requalification Training Module; Revision 0
RO–C–01800; Spent Fuel Pit Cooling and Cleanup Training Module; Revision 8

EPRI FLEX Data Report 004; FLEX - Pump - Horizontal - Mechanical Seal Non-Oil Bath Tier 3 Diesel Driven; Revision 0
EPRI FLEX Data Report 009; FLEX - Generator - 750KW or Less - T3 EGR Diesel Driven; No Revision

Letter to the NRC from Joel P. Gebbie; Donald C. Cook Nuclear Plant Units 1 and 2 Phase 2 On-Shift Staffing Assessment Report Requested by the U. S. Nuclear Regulatory Commission Letter, “Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident,” dated March 12, 2012; Dated May 23, 2014

Letter to the NRC from Joel P. Gebbie; Donald C. Cook Nuclear Plant Units 1 and 2 Compliance with March 12, 2012, NRC Order Regarding Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA–12–049); Dated June 16, 2015

Letter to the NRC from Joel P. Gebbie; Donald C. Cook Nuclear Plant Units 1 and 2 Revision 1 of Final Integrated Plan Regarding March 12, 2012, U. S. Nuclear Regulatory Commission Order Regarding Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA–12–049); Dated October 1, 2015

Letter to Senior Vice President and Chief Nuclear Officer at Indiana Michigan Power Company Nuclear Generation Group from Thomas J. Wengert, NRC/NRR; Donald C. Cook Nuclear Plant, Units 1 and 2 – Staff Assessment in Response to Recommendation 9.3 of the Near-Term Task Force Related to the Fukushima Dai-ichi Nuclear Power Plant Accident (TAC Nos. ME9950 and ME9951); Dated June 6, 2013

Letter to Senior Vice President and Chief Nuclear Officer at Indiana Michigan Power Company Nuclear Generation Group from Mandy Halter, NRC/NRR; Donald C. Cook Nuclear Plant, Units 1 and 2 – Safety Evaluation Regarding Implementation of Mitigating Strategies and Reliable Spent Fuel Instrumentation Related to Orders EA–12–049 and EA–12–051 (TAC Nos. MF0766, MF0767, MF0761, and MF0762); Dated November 9, 2015

DIT–B–00197–25; Main Steam Stop Enclosure Area Temperature
FX–C–OP06; Long Term Core and Containment Cooling; Revision 3
MD–12–FLEX–002–S; DC Cook FLEX Core Cooling and SFP Makeup Hydraulic Analysis; Revision 1

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access Management System
AFW	Auxiliary Feedwater
AR	Action Request
CAP	Corrective Action Program
CFR	Code of Federal Regulations
IMC	Inspection Manual Chapter
IR	Inspection Report
NRC	U.S. Nuclear Regulatory Commission
OE	Operating Experience
PARS	Publicly Available Records System
PI&R	Problem Identification and Resolution
QHSA	Quick Hit Self-Assessment
SDP	Significance Determination Process
WO	Work Order

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Sincerely,

/RA/

Ann Marie Stone, Team Leader
Technical Support Section

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