



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
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July 31, 2015

Mr. Larry Weber  
Senior VP and Chief Nuclear Officer  
Indiana Michigan Power Company  
Nuclear Generation Group  
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Bridgman, MI 49106

SUBJECT: DONALD C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2  
NRC INTEGRATED INSPECTION REPORT 05000315/2015002;  
05000316/2015002

Dear Mr. Weber:

On June 30, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Donald C. Cook Nuclear Power Plant, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on July 31, 2015, with Mr. J. Gebbie, and other members of your staff.

No NRC-identified or self-revealing findings were identified during this inspection. However, the inspectors documented a licensee-identified violation which was determined to be of very low safety significance in this report. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy.

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's Public Document Room or from the Publicly Available Records (PARS) component of the 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 Nirodh Shah Acting for/***

Kenneth Riemer, Chief  
Branch 2  
Division of Reactor Projects

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

Enclosure:  
IR 05000315/2015002; 05000316/2015002  
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 05000315; 05000316  
License Nos: DPR-58; DPR-74

Report No: 05000315/2015002; 05000316/2015002

Licensee: Indiana Michigan Power Company

Facility: Donald C. Cook Nuclear Power Plant, Units 1 and 2

Location: Bridgman, MI

Dates: April 1 through June 30, 2015

Inspectors: J. Ellegood, Senior Resident Inspector  
J. Lennartz, Acting Senior Resident Inspector  
T. Taylor, Resident Inspector  
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Approved by: Kenneth Riemer, Chief  
Branch 2  
Division of Reactor Projects

Enclosure

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## **SUMMARY**

Inspection Report 05000315/2015002, 05000316/2015002; 04/01/2015 – 06/30/2015;  
Licensee-Identified Violations.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. A violation of very low safety significance that was identified by the licensee has been reviewed by the NRC. Corrective actions taken or planned by the licensee have been entered into the licensee's Corrective Action Program. The violation and corrective action tracking number are listed in Section 4OA7 of this report. No additional findings were identified. All violations of U.S. Nuclear Regulation Commission (NRC) requirements are dispositioned in accordance with the NRC's Enforcement Policy dated July 9, 2013. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process" Revision 5, dated February 2014.

## **REPORT DETAILS**

### **Summary of Plant Status**

Unit 1 operated at or near 100 percent power until May 31, 2015, when the licensee shut down the unit as required by Technical Specifications (TS) because the allowed outage time for one inoperable emergency diesel generator (EDG) had expired. The 1AB EDG had been removed from service to perform planned maintenance. During the post-maintenance testing a bearing failure occurred. The unit remained shutdown for the remainder of the inspection period.

Unit 2 was in a shutdown condition for a scheduled refueling outage when the inspection period commenced. Following refueling outage activities, Unit 2 synchronized to the grid on April 28, 2015; returned to full power on April 30, 2015; and operated at or near 100 percent power for the remainder of the inspection period.

### **1. REACTOR SAFETY**

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

#### **1R01 Adverse Weather Protection (71111.01)**

##### **.1 Readiness of Offsite and Alternate AC Power Systems**

##### **a. Inspection Scope**

The inspectors verified that plant features and procedures for operation and continued availability of offsite alternate alternating current (AC) power systems during adverse weather were appropriate. The inspectors validated there were no changes in the licensee's procedures affecting these areas nor the communication protocols between the transmission system operator and the plant since the last review. The inspectors performed a walkdown of the switchyard and control buildings to assess material condition and identify any potential issues. The inspectors also reviewed a sample of open work orders written against distribution system components.

Documents reviewed are listed in the Attachment to this report. The inspectors also reviewed Correction Action Program (CAP) items to verify that the licensee was identifying adverse weather issues and distribution system issues at an appropriate threshold and entering them into their CAP in accordance with station corrective action procedures.

This inspection constituted one readiness of offsite and alternate AC power systems sample as defined in Inspection Procedure (IP) 71111.01-05.

## 1R04 Equipment Alignment (71111.04)

### .1 Quarterly Partial System Walkdowns

#### a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- Unit 1 CD EDG during extended maintenance outage on Unit 1 AB EDG;
- Unit 1 west residual heat removal system following surveillance testing; and
- Unit 2 turbine-driven auxiliary feedwater and east motor-driven auxiliary feedwater trains during west motor-driven auxiliary feedwater pump work.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Final Safety Analysis Report (UFSAR), TS requirements, outstanding work orders (WOs), condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted three partial system walkdown samples as defined in IP 71111.04–05.

#### b. Findings

No findings were identified.

### .2 Semi-Annual Complete System Walkdown

#### a. Inspection Scope

During the second quarter of 2015, the inspectors performed a complete system alignment inspection of the Unit 2 residual heat removal system to verify the functional capability of the system. This system was selected because, it was considered both safety-significant and risk-significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment lineups; electrical power availability; system pressure and temperature indications, as appropriate; component labeling; component lubrication; component and equipment cooling; hangers and supports; operability of support systems; and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and WO's was performed to determine whether any deficiencies

significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved. Documents reviewed are listed in the Attachment to this report.

These activities constituted one complete system walkdown sample as defined in IP 71111.04–05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Fire Zone 73, Control Room Heating, Ventilation and Air Conditioning Equipment Room - Unit 2;
- Fire Zone 29F, Motor Control Centers for Essential Service Water Pumps – Unit 2;
- Fire Zones 49, 106, and 52 in the Unit 1 Auxiliary Building 633' elevation; and
- Fire Zones 107, 50, and 52 in the Unit 2 Auxiliary Building 633' elevation.

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan.

The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event.

Using the documents listed in the Attachment to this report, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP.

Documents reviewed are listed in the Attachment to this report.

These activities constituted four quarterly fire protection inspection samples as defined in IP 71111.05–05.

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and abnormal operating procedures to identify licensee commitments. The specific documents reviewed are listed in the Attachment to this report. The inspectors performed a walkdown of the following plant area to assess the adequacy of watertight doors and other flood barriers. However, during this inspection period, the inspectors could not validate the adequacy of the watertight doors; therefore this sample is not complete.

- ESW pipe tunnel.

Documents reviewed during this inspection are listed in the Attachment to this report. This inspection did not constitute a sample, as it was not completed in the second quarter.

b. Findings

No findings were identified.

1R07 Annual Heat Sink Performance (71111.07)

a. Inspection Scope

The inspectors reviewed the licensee's testing of Unit 2 component cooling water heat exchangers to verify that the licensee's program for monitoring tube condition validated the heat exchangers could remove assumed heat loads in the as found condition and testing identified degraded tubes for replacement and monitoring. As part of the inspection, the inspectors reviewed eddy current data, photos of as found heat exchanger condition and visually checked a sample of the tubes in the heat exchangers. The inspectors also reviewed deficiencies identified by the licensee during inspection activities. Documents reviewed for this inspection are listed in the Attachment to this document.

This annual heat sink performance inspection constituted one sample as defined in IP 71111.07-05.

b. Findings

No findings were identified.

1R08 Inservice Inspection Activities (71111.08)

From March 30, 2015, through April 3, 2015, the inspectors conducted a review of the implementation of the licensee's Inservice Inspection (ISI) Program for monitoring degradation of the Unit 2 reactor coolant system, emergency feedwater systems, risk-significant piping and components, and containment systems.

The reviews described in Sections 1R08.1, 1R08.2, R08.3, IR08.4, and 1R08.5 below, count as one inspection sample as defined in IP 71111.08.

.1 Piping Systems Inservice Inspection

a. Inspection Scope

The inspectors reviewed records of the following non-destructive examinations (NDEs) required by the American Society of Mechanical Engineers (ASME) Section XI Code, and/or Title 10 of the *Code of Federal Regulations* (CFR) 50.55a, to evaluate compliance with the ASME Code, Section XI, and Section V requirements, and if any indications and defects were detected, to determine whether these were dispositioned in accordance with the ASME Code or a NRC-approved alternative requirement:

- Ultrasonic Thickness Examination of the Non-Essential Service Water to Reactor Coolant Pump Train B Piping Near 2-WCR-941;
- Liquid Penetrant examination of Safety Injection line Pipe Lug Weld (2-SI-79-05F);
- Liquid Penetrant examination of Safety Injection line Pipe Lug Weld (2-SI-9-05S-PS);
- Visual Examination of Containment Liner Plate and Penetrating Items (IWE Exams); and
- Visual Examination of Reactor Pressure Vessel Lower Head Bottom Mounted Instrument Surface and Penetrations.

During non-destructive surface and volumetric examinations performed since the previous refueling outage, the licensee had not identified any recordable indications. Therefore, no NRC review was completed for this inspection procedure attribute.

The inspectors reviewed records of the following risk-significant pressure boundary ASME Code, Section XI, Class 1, welds fabricated since the beginning of the last refuelling outage to determine if the licensee: (1) followed the welding procedure; (2) applied appropriate weld filler material; and (3) implemented the applicable Section XI or construction Code NDEs and acceptance criteria. Additionally, the inspectors reviewed the welding procedure specification, and supporting weld procedure qualification records to determine if the weld procedure was qualified in accordance with the requirements of Construction Code and the ASME Code, Section IX:

- Class 1 - Replace Valve 2-SI-137 - Isolation Valve in Cold Leg Bypass Line-Welds No's 1, 2, 3, 4, 5, and 6 (Work Order 55422151).

b. Findings

No findings were identified.

.2 Reactor Pressure Vessel Upper Head Penetration Inspection Activities

a. Inspection Scope

For the Unit 2 Reactor Pressure Vessel upper head, no bare metal visual examination or non-visual examinations were required this outage pursuant to

10 CFR 50.55a(g)(6)(ii)(D). Therefore, no examination was conducted by the licensee, and no NRC review was completed for this inspection procedure attribute.

b. Findings

No findings were identified.

.3 Boric Acid Corrosion Control

a. Inspection Scope

The inspectors independently walked down the Unit 2 reactor coolant system loop piping, including the reactor coolant pumps, pressurizer, and emergency core cooling systems within containment to identify boric acid leakage. The inspectors then reviewed the walk down performed by the licensee to ensure that components with boric acid deposits were identified and entered into the CAP. The inspectors observed these examinations to determine whether the licensee focused on locations where boric acid leaks can cause degradation of safety-significant components.

The inspectors reviewed the following licensee evaluations of components with boric acid deposits to determine if the affected components were documented and properly evaluated in the corrective action system. Specifically, the inspectors evaluated the licensee's corrective actions to determine if degraded components met the component Construction Code and/or the ASME Section XI Code:

- Boric Acid Corrosion Control (BACC) Evaluation 2013-14850 for Component 2-CS-441-1;
- BACC Evaluation 2013-16471 for Component 2PP-35W;
- BACC Evaluation 2013-16660 for Component 2-OME (Lower Reactor Pressure Vessel Head Surface); and
- BACC Evaluation 2013-17340 for U2 Seal Table.

The inspectors reviewed the following corrective actions related to evidence of boric acid leakage to determine whether the corrective actions completed were consistent with the requirements of the ASME Code, Section XI, and 10 CFR Part 50, Appendix B, Criterion XVI;

- AR 2013-14850; Replace 2-CS-441-1 to Stop Boric Acid Leakage;
- AR 2013-16471; Boric Acid Conditions on the Unit 2 West Residual Heat Removal (RHR) Pump;
- AR 2013-16660; Boric Acid on Lower Surface of Reactor Pressure Vessel;
- AR 2013-17274; 2-RC-114-L3, Minor Spot of BA on Valve Body; and
- AR 2014-1933; U2 CTS Spray Ring Header.

b. Findings

No findings were identified.

.4 Steam Generator Tube Inspection Activities

a. Inspection Scope

For the Unit 2 Steam Generators, no examination was required pursuant to the TS during the current refueling outage. Therefore, no NRC review was completed for this inspection procedure attribute.

b. Findings

No findings were identified.

.5 Identification and Resolution of Problems

a. Inspection Scope

The inspectors performed a review of ISI/Steam Generator-related problems entered into the licensee's CAP, and conducted interviews with licensee's staff to determine if:

- The licensee had established an appropriate threshold for identifying ISI/Steam Generator-related problems;
- The licensee had performed a root cause (if applicable) and taken appropriate corrective actions; and
- The licensee had evaluated operating experience and industry generic issues related to ISI and pressure boundary integrity.

The inspectors performed these reviews to evaluate compliance with 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requirements. The corrective action documents reviewed by the inspectors are listed in the Attachment to this report.

b. Findings

No findings were identified.

1R11 Licensed Operator Regualification Program (71111.11)

.1 Resident Inspector Quarterly Review of Licensed Operator Regualification (71111.11Q)

a. Inspection Scope

On May 19, 2015, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator regualification training to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;

- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator requalification program simulator sample as defined in IP 71111.11-05

b. Findings

No findings were identified.

2. Resident Inspector Quarterly Observation During Periods of Heightened Activity or Risk (71111.11Q)

a. Inspection Scope

On April 28, 2015, the inspectors observed the synchronization of Unit 2 to the electrical grid following the refueling outage. This was an activity that required heightened awareness or was related to increased risk. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms (if applicable);
- correct use and implementation of procedures;
- control board (or equipment) manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications (if applicable).

The performance in these areas was compared to pre-established operator action expectations, procedural compliance and task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator heightened activity/risk sample as defined in IP 71111.11-05.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- Unit 1 and Unit 2 steam dump system.

The inspectors reviewed events such as where ineffective equipment maintenance had resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components/functions classified as (a)(2), or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly maintenance effectiveness sample as defined in IP 71111.12-05.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- Emergent replacement of Unit 1 AB EDG start-relay;
- Emergent replacement of Unit 2 Control Room Instrumentation Distribution (CRID) Channel 1 capacitors; and
- Emergent work following failure of the Unit 1 AB EDG.

These activities were selected based on their potential risk significance relative to the Reactor Safety Cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

Documents reviewed during this inspection are listed in the Attachment to this report. These maintenance risk assessments and emergent work control activities constituted three samples as defined in IP 71111.13–05.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functional Assessments (71111.15)

a. Inspection Scope

The inspectors reviewed the following issues:

- Unexpected closure of reserve feed breaker;
- Several nuclear instruments out-of-tolerance during the Unit 2 refueling outage; and
- Failure of the Unit 1 AB EDG start-relay.

The inspectors selected these potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and UFSAR to the licensee's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment to this report.

This operability inspection constituted three samples as defined in IP 71111.15–05.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

The inspectors reviewed the following modification:

- Temporary Modification 2-TM-15-20-RO, isolate steam and control air to steam dump valve 2-URV-125.

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design basis, the UFSAR, and the TS, as applicable, to verify that the modification did not affect the operability or availability of the affected system(s). The inspectors, as applicable, observed ongoing and completed work activities to ensure that the modifications were installed as directed and consistent with the design control documents; the modifications operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one temporary modification sample as defined in IP 71111.18–05.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the following post-maintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- Unit 2 low pressure turbine weld repairs;
- Unit 2 CD EDG following governor tuning;
- Unit 2 AB EDG following apparent voltage regulator failure;
- Unit 2 turbine-driven auxiliary feedwater pump outage work;
- Unit 2 West Coolant Charging Pump following rotor replacement; and
- Replacement of Unit 2 CRID Channel 1 capacitors.

These activities were selected based upon the structure, system, or component's ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was

returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion); and test documentation was properly evaluated. The inspectors evaluated the activities against TSs, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment to this report.

This inspection constituted six post-maintenance testing samples as defined in IP 71111.19-05.

b. Findings

No findings were identified.

1R20 Outage Activities (71111.20)

.1 Refueling Outage Activities

a. Inspection Scope

The Unit 2 refueling outage (RFO) commenced in the first quarter of 2015 and concluded on April 28, 2015. During the RFO, the inspectors monitored licensee controls over the outage activities listed below:

- licensee configuration management, including maintenance of defense-in-depth commensurate with the outage safety plan for key safety functions and compliance with the applicable TS when taking equipment out of service;
- implementation of clearance activities and confirmation that tags were properly hung and equipment appropriately configured to safely support the work or testing;
- installation and configuration of reactor coolant pressure, level, and temperature instruments to provide accurate indication, accounting for instrument error;
- controls over the status and configuration of electrical systems to ensure that TS and outage safety plan requirements were met, and controls over switchyard activities;
- monitoring of decay heat removal processes, systems, and components;
- controls to ensure that outage work was not impacting the ability of the operators to operate the spent fuel pool cooling system;
- reactor water inventory controls including flow paths, configurations, and alternative means for inventory addition, and controls to prevent inventory loss;
- controls over activities that could affect reactivity;
- maintenance of secondary containment as required by TS;
- licensee fatigue management, as required by 10 CFR 26, Subpart I;
- refueling activities, including fuel handling evolutions in containment and in the SFP;

- startup and ascension to full power operation, tracking of startup prerequisites, walkdown of containment to verify that debris had not been left which could block emergency core cooling system suction strainers, and reactor physics testing; and
- licensee identification and resolution of problems related to RFO activities.

Documents reviewed are listed in the Attachment to this report.

This inspection, coupled with activities documented in report 05000315/2015002; 05000316/2015002 constituted one RFO sample as defined in IP 71111.20–05.

b. Findings

No findings were identified.

.2 Forced Outage due to failure of the Unit 1 AB EDG

a. Inspection Scope

On June 1, 2015, the station completed a planned shutdown of Unit 1 to address a failure of the AB EDG. The licensee placed the Unit in Mode 5 (cold shutdown) in accordance with technical specifications. Following a maintenance period, the AB EDG failed during one of the post-maintenance test runs. The crankshaft and two bearings were damaged after high temperatures were experienced in the bearings. The licensee formed a root cause team and commenced repairs of the EDG. The forced outage to repair the EDG continued into the third quarter. The inspectors reviewed the scope of work included in the outage, inspected containment, and observed shutdown and cooldown operations. Outage risk was reviewed as part of a Maintenance Risk Assessment and Emergent Work Control sample under Section 1R13 of this report.

Since the sample continued into the third quarter, it will not be counted as a sample in the second quarter.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- Loss of offsite power/loss of coolant accident emergency core cooling system testing during Unit 2 refueling outage (routine);
- Valve 2-RH-130 testing and initial failure (routine);
- Unit 2 emergency core cooling system check valve testing following initial failure (routine);

- Unit 2 Ice Condenser surveillances (Ice Condenser); and
- 2-CCR-440 and 2-CCW-243-25 leak checks (Containment Isolation Valve).

The inspectors observed in-plant activities and reviewed procedures and associated records to determine the following:

- did preconditioning occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges; and the calibration frequency was in accordance with TSs, the UFSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers code, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;
- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted three routine surveillance testing samples, and two containment isolation valve samples (one of which was an ice condenser surveillance) as defined in IP 71111.22, Sections–02 and–05.

b. Findings

No findings were identified.

## 1EP6 Drill Evaluation (71114.06)

### .1 Emergency Preparedness Drill Observation

#### a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on June 24, 2015, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the control room simulator, the technical support center and emergency offsite facility to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the corrective action program. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the Attachment to this report.

This emergency preparedness drill inspection constituted one sample as defined in IP 71114.06–06.

#### b. Findings

No findings were identified.

## 2. **RADIATION SAFETY**

### **Cornerstone: Occupational Radiation Safety**

## 2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01)

This inspection constituted a partial sample as defined in IP 71124.01-05.

### .1 Inspection Planning (02.01)

#### a. Inspection Scope

The inspectors reviewed all licensee performance indicators for the Occupational Exposure Cornerstone for follow-up. The inspectors reviewed the results of Radiation Protection Program audits (e.g., licensee's quality assurance audits or other independent audits). The inspectors reviewed any reports of operational occurrences related to occupational radiation safety since the last inspection. The inspectors reviewed the results of the audit, and operational report reviews to gain insights into overall licensee performance.

#### b. Findings

No findings were identified.

## .2 Radiological Hazard Assessment (02.02)

### a. Inspection Scope

The inspectors determined if there have been changes to plant operations since the last inspection that may result in a significant new radiological hazard for onsite workers or members of the public. The inspectors evaluated whether the licensee assessed the potential impact of these changes, and has implemented periodic monitoring, as appropriate, to detect and quantify the radiological hazard.

The inspectors reviewed the last two radiological surveys from selected plant areas and evaluated whether the thoroughness and frequency of the surveys were appropriate for the given radiological hazard.

The inspectors conducted walkdowns of the facility, including radioactive waste processing, storage, and handling areas to evaluate material conditions and performed independent radiation measurements to verify conditions.

The inspectors selected the following radiologically risk-significant work activities that involved exposure to radiation:

- Install, modify and remove scaffold in Unit 2 Containment;
- remove lower motor bearing oil spill pans, instrumentation, inspect/replace seal package, support work on the reactor coolant pump; and
- regenerative heat exchanger activities;
- For these work activities, the inspectors assessed whether the pre-work surveys performed were appropriate to identify and quantify the radiological hazard; and to establish adequate protective measures.

The inspectors evaluated the Radiological Survey Program to determine if hazards were properly identified, including the following:

- identification of hot particles;
- the presence of alpha emitters;
- the potential for airborne radioactive materials, including the potential presence of transuranics and/or other hard-to-detect radioactive materials (This evaluation may include licensee planned entry into non-routinely entered areas subject to previous contamination from failed fuel.);
- the hazards associated with work activities that could suddenly and severely increase radiological conditions and that the licensee has established a means to inform workers of changes that could significantly impact their occupational dose; and
- severe radiation field dose gradients that can result in non-uniform exposures of the body.

The inspectors observed work in potential airborne areas and evaluated whether the air samples were representative of the breathing air zone. The inspectors evaluated whether continuous air monitors were located in areas with low background to minimize false alarms, and were representative of actual work areas. The inspectors evaluated the licensee's program for monitoring levels of loose surface contamination in areas of the plant with the potential for the contamination to become airborne.

b. Findings

No findings were identified.

.3 Instructions to Workers (02.03)

a. Inspection Scope

The inspectors selected various containers holding non-exempt licensed radioactive materials that may cause unplanned or inadvertent exposure of workers, and assessed whether the containers were labeled and controlled in accordance with 10 CFR Part 20.1904, "Labeling Containers," or met the requirements of 10 CFR 20.1905(g), "Exemptions To Labeling Requirements".

The inspectors reviewed the following radiation work permits (RWPs) used to access high-radiation areas and evaluated the specified work control instructions or control barriers:

- RWP 152142; Install, Modify and Remove Scaffold in Unit 2 Containment;
- RWP 152151; Remove Lower Motor Bearing Oil Spill Pans, Instrumentation, Inspect/Replace Seal Package, Support Work on the Reactor Coolant Pump; and
- RWP 152175; Regenerative Heat Exchanger Activities.

For these RWPs, the inspectors assessed whether allowable stay times or permissible dose (including from the intake of radioactive material) for radiologically significant work under each RWP were clearly identified. The inspectors evaluated whether electronic personal dosimeter alarm set-points were in conformance with survey indications and plant policy.

The inspectors reviewed selected occurrences where a worker's electronic personal dosimeter noticeably malfunctioned or alarmed. The inspectors evaluated whether workers responded appropriately to the off-normal condition. The inspectors assessed whether the issue was included in the CAP, and dose evaluations were conducted as appropriate.

For work activities that could suddenly and severely increase radiological conditions, the inspectors assessed the licensee's means to inform workers of changes that could significantly impact their occupational dose.

b. Findings

No findings were identified.

.4 Contamination and Radioactive Material Control (02.04)

a. Inspection Scope

The inspectors observed locations where the licensee monitors potentially contaminated material leaving the radiological control area, and inspected the methods used for control, survey, and release from these areas. The inspectors observed the performance of personnel surveying and releasing material for unrestricted use and evaluated whether the work was performed in accordance with plant procedures and

whether the procedures were sufficient to control the spread of contamination and prevent unintended release of radioactive materials from the site. The inspectors assessed whether the radiation monitoring instrumentation had appropriate sensitivity for the type(s) of radiation present.

The inspectors reviewed the licensee's criteria for the survey and release of potentially contaminated material. The inspectors evaluated whether there was guidance on how to respond to an alarm that indicates the presence of licensed radioactive material.

The inspectors reviewed the licensee's procedures and records to verify that the radiation detection instrumentation was used at its typical sensitivity level based on appropriate counting parameters. The inspectors assessed whether or not the licensee has established a *de facto* "release limit" by altering the instrument's typical sensitivity through such methods as raising the energy discriminator level or locating the instrument in a high-radiation background area.

b. Findings

No findings were identified.

.5 Radiological Hazards Control and Work Coverage (02.05)

a. Inspection Scope

The inspectors evaluated ambient radiological conditions (e.g., radiation levels or potential radiation levels) during tours of the facility. The inspectors assessed whether the conditions were consistent with applicable posted surveys, RWPs, and worker briefings.

The inspectors evaluated the adequacy of radiological controls, such as required surveys, radiation protection job coverage (including audio and visual surveillance for remote job coverage), and contamination controls. The inspectors evaluated the licensee's use of electronic personal dosimeters in high-noise areas as high-radiation area monitoring devices.

The inspectors assessed whether radiation monitoring devices were placed on the individual's body consistent with licensee procedures. The inspectors assessed whether the dosimeter was placed in the location of highest expected dose or that the licensee properly employed an NRC-approved method of determining effective dose equivalent.

The inspectors reviewed the application of dosimetry to effectively monitor exposure to personnel in high-radiation work areas with significant dose rate gradients.

The inspectors reviewed the outage plans and RWPs for work within airborne radioactivity areas with the potential for individual worker internal exposures. No work was conducted in airborne areas.

b. Findings

No findings were identified.

.6 Risk-Significant High-Radiation Area and Very-High Radiation Area Controls (02.06)

a. Inspection Scope

The inspectors discussed with the Radiation Protection Manager, the controls and procedures for high-risk, high-radiation areas, and very-high radiation areas. The inspectors discussed methods employed by the licensee to provide stricter control of very-high radiation area access as specified in 10 CFR 20.1602, "Control of Access to Very-High Radiation Areas," and Regulatory Guide 8.38, "Control of Access to High and Very-High Radiation Areas of Nuclear Plants." The inspectors assessed whether any changes to licensee procedures substantially reduce the effectiveness, and level of worker protection.

The inspectors discussed the controls in place for special areas that have the potential to become very-high radiation areas during certain plant operations with first-line health physics supervisors (or equivalent positions having backshift health physics oversight authority). The inspectors assessed whether these plant operations require communication beforehand with the health physics group, so as to allow corresponding timely actions to properly post, control, and monitor the radiation hazards including re-access authorization.

The inspectors evaluated licensee controls for very-high radiation areas, and areas with the potential to become very-high radiation areas to ensure that an individual was not able to gain unauthorized access to the very-high radiation areas.

b. Findings

No findings were identified.

.7 Radiation Worker Performance (02.07)

a. Inspection Scope

The inspectors observed radiation worker performance with respect to stated radiation protection work requirements. The inspectors assessed whether workers were aware of the radiological conditions in their workplace and the radiation work permit controls/limits in place, and whether their performance reflected the level of radiological hazards present.

b. Findings

No findings were identified.

.8 Radiation Protection Technician Proficiency (02.08)

a. Inspection Scope

The inspectors observed the performance of the Radiation Protection Technicians with respect to all radiation protection work requirements. The inspectors evaluated whether technicians were aware of the radiological conditions in their workplace and the radiation work permit controls/limits, and whether their performance was consistent with their training and qualifications with respect to the radiological hazards and work activities.

b. Findings

No findings were identified.

2RS2 Occupational As-Low-As-Reasonably-Achievable Planning and Controls (71124.02)

The inspection activities supplement those documented in Inspection Report 05000315(316)/2014002 and 05000315(316)/2014005, and constitute one complete sample as defined in IP 71124.02-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the site-specific trends in collective exposures and source term measurements.

The inspectors reviewed site-specific procedures associated with maintaining occupational exposures as-low-as-reasonably-achievable (ALARA), which included a review of processes used to estimate and track exposures from specific work activities.

b. Findings

No findings were identified.

.2 Radiological Work Planning (02.02)

a. Inspection Scope

The inspectors selected the following work activities of the highest exposure significance:

- RWP 141148; U1C26 Steam Generator Primary Side Activities;
- RWP 152142; Install, Modify and Remove Scaffold in Unit 2 Containment;
- RWP 152151; Remove Lower Motor Bearing Oil Spill Pans, Instrumentation, Inspect/Replace Seal Package, Support Work on the Reactor Coolant Pump; and
- RWP 152175; Regenerative Heat Exchanger Activities.

b. Findings

No findings were identified.

.3 Verification of Dose Estimates and Exposure Tracking Systems (02.03)

a. Inspection Scope

The inspectors reviewed the assumptions and basis (including dose rate and man-hour estimates) for the current annual collective exposure estimate for reasonable accuracy for select ALARA work packages. The inspectors reviewed applicable procedures to determine the methodology for estimating exposures from specific work activities and the intended dose outcome.

The inspectors evaluated whether the licensee established measures to track, trend, and, if necessary, to reduce occupational doses for ongoing work activities. The inspectors assessed whether trigger points or criteria were established to prompt additional reviews and/or additional ALARA planning and controls.

The inspectors evaluated the licensee's method of adjusting exposure estimates, or re-planning work, when unexpected changes in scope or emergent work were encountered. The inspectors assessed whether adjustments to exposure estimates (intended dose) were based on sound radiation protection and ALARA principles, or if they were just adjusted to account for failures to control the work. The inspectors evaluated whether the frequency of these adjustments called into question the adequacy of the original ALARA planning process.

b. Findings

No findings were identified.

.4 Problem Identification and Resolution (02.06)

a. Inspection Scope

The inspectors evaluated whether problems associated with ALARA planning and controls are being identified by the licensee at an appropriate threshold, and were properly addressed for resolution in the licensee's CAP.

b. Findings

No findings were identified.

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08)

This inspection constituted one complete sample as defined in IP 71124.08-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the solid radioactive waste system description in the UFSAR, the Process Control Program, and the Recent Radiological Effluent Release Report for information on the types, amounts, and processing of radioactive waste disposed.

The inspectors reviewed the scope of quality assurance audits in this area since the last inspection to gain insights into the licensee's performance, and inform the "smart sampling" inspection planning.

b. Findings

No findings were identified.

.2 Radioactive Material Storage (02.02)

a. Inspection Scope

The inspectors selected areas where containers of radioactive waste are stored, and evaluated whether the containers were labeled in accordance with 10 CFR Part 20.1904, "Labeling Containers," or controlled in accordance with 10 CFR 20.1905, "Exemptions to Labeling Requirements".

The inspectors assessed whether the radioactive material storage areas were controlled and posted in accordance with the requirements of 10 CFR Part 20, "Standards for Protection Against Radiation." For materials stored or used in the controlled or unrestricted areas, the inspectors evaluated whether they were secured against unauthorized removal and controlled in accordance with 10 CFR 20.1801, "Security of Stored Material," and 10 CFR 20.1802, "Control of Material Not in Storage".

The inspectors evaluated whether the licensee established a process for monitoring the impact of long term storage (e.g., buildup of any gases produced by waste decomposition, chemical reactions, container deformation, loss of container integrity, or re-release of free-flowing water) that was sufficient to identify potential unmonitored, unplanned releases or nonconformance with waste disposal requirements.

The inspectors selected containers of stored radioactive material, and assessed for signs of swelling, leakage, and deformation.

b. Findings

No findings were identified.

.3 Radioactive Waste System Walkdown (02.03)

a. Inspection Scope

The inspectors walked down accessible portions of select radioactive waste processing systems to assess whether the current system configuration and operation agreed with the descriptions in the UFSAR, Offsite Dose Calculation Manual, and Process Control Program.

The inspectors reviewed administrative and/or physical controls (i.e., drainage and isolation of the system from other systems) to assess whether the equipment which is not in service or abandoned in place would not contribute to an unmonitored release path and/or affect operating systems, or be a source of unnecessary personnel exposure. The inspectors assessed whether the licensee reviewed the safety significance of systems and equipment abandoned in place in accordance with 10 CFR 50.59, "Changes, Tests, and Experiments".

The inspectors reviewed the adequacy of changes made to the radioactive waste processing systems since the last inspection. The inspectors evaluated whether changes from what is described in the FSAR were reviewed and documented in accordance with 10 CFR 50.59 as appropriate, and to assess the impact on radiation doses to members of the public.

The inspectors selected processes for transferring radioactive waste resin and/or sludge discharges into shipping/disposal containers and assessed whether the waste stream mixing, sampling procedures, and methodology for waste concentration averaging were consistent with the Process Control Program, and provided representative samples of the waste product for the purposes of waste classification as described in 10 CFR 61.55, "Waste Classification".

For those systems that provide tank recirculation, the inspectors evaluated whether the tank recirculation procedures provided sufficient mixing.

The inspectors assessed whether the licensee's Process Control Program correctly described the current methods and procedures for dewatering and waste stabilization (e.g., removal of freestanding liquid).

b. Findings

No findings were identified.

.4 Waste Characterization and Classification (02.04)

a. Inspection Scope

The inspectors selected the following radioactive waste streams for review:

- Dry Active Waste; and
- Used Resins.

For the waste streams listed above, the inspectors assessed whether the licensee's Radiochemical Sample Analysis Results (i.e., "10 CFR Part 61" Analysis) were sufficient to support radioactive waste characterization as required by 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste." The inspectors evaluated whether the licensee's use of scaling factors and calculations to account for difficult-to-measure radionuclides was technically sound, and based on current 10 CFR Part 61 Analysis for the selected radioactive waste streams.

The inspectors evaluated whether changes to plant operational parameters were taken into account to: (1) maintain the validity of the waste stream composition data between the annual or biennial sample analysis update; and (2) assure that waste shipments continued to meet the requirements of 10 CFR Part 61 for the waste streams selected above.

The inspectors evaluated whether the licensee had established and maintained an adequate Quality Assurance Program to ensure compliance with the waste classification and characterization requirements of 10 CFR 61.55 and 10 CFR 61.56, "Waste Characteristics."

b. Findings

No findings were identified.

.5 Shipment Preparation (02.05)

a. Inspection Scope

The inspectors observed shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and licensee verification of shipment readiness. The inspectors assessed whether the requirements of applicable transport cask certificate of compliance had been met. The inspectors evaluated whether the receiving licensee was authorized to receive the shipment packages. The inspectors evaluated whether the licensee's procedures for cask loading and closure procedures were consistent with the vendor's current approved procedures.

The inspectors observed radiation workers during the conduct of radioactive waste processing and radioactive material shipment preparation and receipt activities. The inspectors assessed whether the shippers were knowledgeable of the shipping regulations and whether shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport with respect to:

- As appropriate, the licensee's response to U.S. NRC Bulletin 79-19, "Packaging of Low-Level Radioactive Waste for Transport and Burial," dated August 10, 1979; and
- Title 49 CFR Part 172, "Hazardous Materials Table, Special Provisions, Hazardous Materials Communication, Emergency Response Information, Training Requirements, and Security Plans," Subpart H, "Training."

Due to limited opportunities for direct observation, the inspectors reviewed the technical instructions presented to workers during routine training. The inspectors assessed whether the licensee's training program provided training to personnel responsible for the conduct of radioactive waste processing and radioactive material shipment preparation activities.

b. Findings

No findings were identified.

.6 Shipping Records (02.06)

a. Inspection Scope

The inspectors evaluated whether the shipping documents indicated the proper shipper name; emergency response information and a 24-hour contact telephone number; accurate curie content and volume of material; and appropriate waste classification, transport index, and United Nations number for the following radioactive shipments:

- DCC14-068, LSA II Resins, November 5, 2014;
- DCC14-026, LSA II Resins; and
- DCC14-003, Type A Charging Pump Rotor.

Additionally, the inspectors assessed whether the shipment placarding was consistent with the information in the shipping documentation.

b. Findings

No findings were identified.

.7 Identification and Resolution of Problems (02.07)

a. Inspection Scope

The inspectors assessed whether problems associated with radioactive waste processing, handling, storage, and transportation, were being identified by the licensee at an appropriate threshold, were properly characterized, and were properly addressed for resolution in the licensee's CAP. Additionally, the inspectors evaluated whether the corrective actions were appropriate for a selected sample of problems documented by the licensee that involve radioactive waste processing, handling, storage, and transportation.

The inspectors reviewed results of selected audits performed since the last inspection of this program, and evaluated the adequacy of the licensee's corrective actions for issues identified during those audits.

b. Findings

No findings were identified.

**4. OTHER ACTIVITIES**

**Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Security**

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Items Entered into the Corrective Action Program

a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify they were being entered into the licensee's CAP at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Attributes reviewed included: identification of the problem was complete and accurate; timeliness was commensurate with the safety significance; evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent-of-condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue.

Minor issues entered into the licensee's CAP as a result of the inspectors' observations are included in the Attachment to this report.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished through inspection of the station's daily condition report packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings were identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspectors' CAP item screening discussed in Section 4OA2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the 6-month period of January 2015 through June 2015, although some examples expanded beyond those dates where the scope of the trend warranted.

The inspectors noted several Action Requests (AR's) during the period of interest having to do with the potential for overfilled cable trays. In many cases, while attempting to update the cable database during implementation of an engineering change, the licensee noted that the electronic database would not allow a change to be made because it indicated the cable tray in question was already overfilled (i.e. too many cables in the tray). The inspectors reviewed several of these AR's and determined no safety-related cable trays were affected (in the ones looked at by the inspectors). Oftentimes, in other ARs, further licensee analysis determined the trays were actually not overfilled or that additional cables could be added after engineering analysis. The inspectors questioned whether or not it would be prudent to search the database proactively vice waiting on individual updates to identify potentially overfilled cable trays. The inspectors discussed the issue with licensee management and noted that Engineering was starting a review of the database.

During the inspection sample, the inspectors reviewed a site-initiated AR that sought to investigate a potential trend in the cross-cutting aspect of QA.2, "Challenge the Unknown." The site identified four instances to be included in the analysis. The inspectors noted that around the time period in question, two NRC-identified findings had also been issued, both with a cross-cutting aspect of QA.2. These were not to be included in the licensee's self-initiated assessment. After discussion with the inspectors, the licensee issued an AR to explore a potential gap in the trending program with respect to trend reviews.

This review constituted one semi-annual trend inspection sample as defined in IP 71152-05.

b. Findings

No findings were identified.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153)

.1 Unit 2 Manual Reactor Trip during Startup from Refueling Outage

a. Inspection Scope

The inspectors reviewed the plant's response to a manual reactor trip of Unit 2 on April 23, 2015. The plant had completed reactor physics testing and was operating at low power following the reactor startup at the conclusion of the refueling outage. With the plant relatively stable, operators noted an unexpected drop in reactor coolant system temperature. When operators noted the minimum temperature for criticality was being approached, a manual reactor trip was inserted. The cause of the rapid cooldown was the failure of some recently modified valves in the condenser steam dump system. The valves control reactor coolant system temperature by regulating the flow of secondary plant steam to the main condensers. The plant was stabilized, the valves were replaced, and the licensee commenced a root cause analysis. Inspectors observed efforts to stabilize the plant in the control room following the reactor trip. No issues were identified with the response. Documents reviewed are listed in the Attachment to this report.

This event follow-up review constituted one sample as defined in IP 71153-05.

b. Findings

No findings were identified.

4OA5 Other Activities

.1 Post-Approval Site Inspection for License Renewal (Phase III) – Inspection Procedure 71003 (This section only applies to D.C. Cook Unit 1)

a. Inspection Scope

(1) Review of Commitment Items that Remained Open During the Unit 1 Phase II Inspection

As documented in 71003, Phase II, IR 05000315/2014008 (ML14182A324), Commitment Items 5, 6, 12, 16, 20, 23, 30, 34, 36, 37, 39, and 42 remained open for various reasons. The inspectors reviewed closure documents including completed

surveillance records, work orders, and conducted interviews to verify the licensee completed the necessary actions for the closure of these commitments.

Specific documents reviewed are listed in the Attachment to this report.

1. Buried Piping Inspection Program, Commitment Items 5 and 42:

The Buried Piping Inspection Program is a new program, which will manage the effects of corrosion on the pressure-retaining capability of buried carbon steel piping and tanks.

During the Phase II inspection, the Nuclear Reactor Regulation (NRR) staff was reviewing the adequacy of changes to these commitments submitted by the licensee in a letter dated October 17, 2013, (ML13295A422), to add iron and copper piping to the scope of this program. In a safety evaluation, dated October 8, 2014, (ML14274A522), NRR staff approved the changes.

Based on the above, the inspectors determined the licensee met Commitment Items 5 and 42.

2. Cast Austenitic Stainless Steel Evaluation Program, Commitment Item 6:

The Cast Austenitic Stainless Steel (CASS) Evaluation Program is a new program, which will augment the inspection of Reactor Coolant System (RCS) components in accordance with ASME Section XI. The CASS Evaluation Program will manage the effects of loss of fracture toughness in RCS CASS components susceptible to thermal aging embrittlement using volumetric inspections or a component-specific flaw tolerance evaluation.

During the Phase II inspection, the licensee had only contracted Westinghouse to perform the required flaw tolerance evaluation for the CASS reactor coolant loop piping. Westinghouse has now completed the required flaw tolerance evaluation and it is contained in Westinghouse Commercial Atomic Power 17538, Revision 1.

Based on the above, the inspectors determined the licensee met Commitment Item 6.

3. Non- Environmental Qualification Inaccessible Medium-Voltage Cable Program, Commitment Item 12:

Commitment Item 12 specified the Non-Environmental Qualification Inaccessible Medium-Voltage Cable Program applies to inaccessible (e.g., in conduit or direct-buried) medium-voltage cables within the scope of license renewal that are exposed to significant moisture simultaneously with applied voltage. This program will test these cables to provide an indication of the condition of the conductor insulation. The specific type of test performed will be determined prior to the initial test.

During the Phase II inspection, while reviewing the cable test results, the inspectors noted that the licensee had not completed all of the committed cable tests. Since the Phase II inspection, the licensee completed all the remaining cable tests as documented in several work orders.

Based on the above, the inspectors determined the licensee met Commitment Item 12.

4. Preventative Maintenance Program, Commitment Items 16 and 37:

The Preventative Maintenance (PM) Program is an existing program comprises those PM tasks intended to sustain plant equipment within design parameters and maintain the equipment intrinsic reliability. The PM activities provide for periodic equipment inspections and testing to detect the various aging effects applicable to those components included in the scope of the PM Program for license renewal.

During the Phase II inspection, the inspectors noted that the licensee had submitted a commitment revision to the NRC on March 1, 2013, (ML13073A110), related to Commitment Item 16 to remove the security diesel generator room from the scope of license renewal. Subsequently, in a safety evaluation dated June 18, 2014, (ML14105A402), NRR approved the commitment change. Also, during the Phase II inspection, inspectors had noted that some of the EDG silencer inspections were not completed as required in commitment item 37. The inspectors verified that the licensee has since completed all the required EDG silencer inspections.

Based on the above, the inspectors determined the licensee met Commitment Items 16 and 37.

5. Reactor Vessel Internals CASS Program, and Reactor Vessel Internals Plates, Forgings, Welds, and Bolting Program, Commitment Items 20 and 36:

Commitment Item 20, specified that the Reactor Vessel Internals CASS program will provide visual inspections and non-destructive examinations of the Reactor Vessel Internals during the period of extended operation. The program will monitor propagation of cracks from existing flaws. Commitment Item 36 stated, the licensee will submit the Reactor Vessel Internals Plates, Forgings, Welds, and Bolting Program for NRC staff to review and approval three years prior to the period of extended operation for Unit 2, and no later than October 1, 2012, for Unit 1.

During the Phase II inspection, the inspectors noted that by letter American Electric Power (AEP)-NRC-2012-82 (ML12284A320), dated October 1, 2012, the licensee had submitted the new Reactor Vessel Internals Aging Management Program to NRR, and staff review was in progress. Subsequently, the licensee submitted additional information by letter AEP-NRC-2014-60, dated October 22, 2014, (ML14316A449). Although, the NRR staff review of these submittals are continuing, the licensee completed their required actions for the commitments.

Based on the above, the inspectors determined the licensee met Commitment Items 20 and 36.

6. Structures Monitoring Program, Commitment Item 23:

The Structural Monitoring Program is an existing program comparable to the program described in NUREG-1801, Section XI.S6, implemented to monitor the condition of structures and structural components within the scope of the Maintenance Rule. The program was expanded to encompass structures and structural components within the scope of license renewal.

During the Phase II inspection, inspectors noted that the licensee had submitted a change to this commitment item to remove the security diesel generator room from the scope of the structures monitoring program. The commitment item was left open pending NRR Division of License Renewal staff review of the commitment change. Subsequently, NRR Division of License Renewal staff approved the commitment change in a safety evaluation, dated June 18, 2014, (ML14105A402).

Based on the above, the inspectors determined the licensee met Commitment Item 23.

7. Water Chemistry Control – Chemistry One-Time Inspection Program, Commitment Items 30 and 39:

The Water Chemistry Control – Chemistry One-Time Inspection Program is a new program that the licensee committed to implement and complete prior to the period of extended operation. The program is to verify the effectiveness of the Water Chemistry Control Program to ensure aging effects were effectively managed during the period of extended operation.

At the time of the Phase II inspection, the inspectors noted that the licensee had not completed all of the actions designated to be finished prior to the extended period. The inspectors verified that the licensee completed all the required actions as documented in several work orders.

Based on the above, the inspectors determined the licensee met Commitment Items 30 and 39.

8. Fatigue Monitoring Program, Commitment Item 34:

Fatigue Monitoring Program is an existing program comparable to the program described in NUREG-1801, Section X.M1, Metal Fatigue of Reactor Coolant Pressure Boundary. The Fatigue Monitoring Program monitors and tracks the number of critical thermal and pressure transients for selected RCS components in order not to exceed the design limit on fatigue usage. The program maintains the basis for component analyses containing explicit thermal cycle count assumptions. Components managed by this program are those shown to be acceptable by analyses that explicitly addressed thermal and pressure fatigue transient limits.

Commitment Item 34 specified the licensee will review the piping loads on the remaining hot penetrations to establish the base loads for the fatigue exemption provisions of ASME Section III, N-415.1. The licensee will group the penetrations based on their duty cycle during normal operations including in-service testing duty. The cycle loads and stresses will be added to the piping analysis loads as appropriate and the resultant loads will be compared to the fatigue exemption provisions of ASME Section III, N-415.1. Any penetration group that does not meet the exemption provisions will be analyzed for fatigue using the most limiting penetration to represent the group. This evaluation will be completed prior to entering the period of extended operation, and will be projected to the end of the period of extended operation.

During the Phase II inspection, the inspectors noted the licensee had not completed the necessary evaluations to close Commitment Item 34. The inspectors verified that the licensee subsequently completed all the necessary evaluations as documented in SD-060111-001.

Based on the above, the inspectors determined the licensee met Commitment Item 34.

9. Review of Training Accreditation

The inspectors reviewed the 2015 training accreditation that was performed at the site by the industry.

b. Findings:

No findings of significance were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On July 31, 2015, the inspectors presented the inspection results to Mr. J. Gebbie, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

.2 Interim Exit Meetings

Interim exits were conducted for:

- The results of the inservice inspection with Mr. Larry Weber, Chief Nuclear Officer, and other members of the licensee staff on April 3, 2015;
- The inspection results for the areas of radiological hazard assessment and exposure controls; and occupational ALARA planning and controls with Mr. J. Gebbie, Site Vice President, on April 10, 2015;
- The inspection results for the areas of occupational ALARA planning and controls; and radioactive solid waste processing and radioactive material handling, storage, and transportation with Mr. J. Gebbie, Site Vice President, on May 22, 2015; and
- On June 12, 2015, the inspectors presented the 71003, Phase III inspection results to Mr. J. Gebbie, and other members of the licensee staff. The licensee acknowledged the issues presented.

The inspectors confirmed that none of the potential report input discussed was considered proprietary. Proprietary material received during the inspection was returned to the licensee.

4OA7 Licensee-Identified Violation

The following violation of very low significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of the NRC Enforcement Policy for being dispositioned as a Non-Cited Violation (NCV).

- During the Unit 1 forced outage to repair the 1AB EDG, the licensee identified 42 working hour violations amongst seven contract workers involved in the EDG work. The workers were performing covered work and had been entered into the work hour database; however, due to planning and communication issues, some licensee personnel were under the impression that they were being treated as non-covered workers. As a result, their work hours were not appropriately tracked. Title 10 CFR Part 26.205(d) states that licensees shall control the work hours of individuals subject to that section. Contrary to this regulation, the hours were not controlled. Requirements violated included the maximum hours to be worked in 168, 48, and 24 hour periods. Additionally, there were instances of minimum days off and rest period violations. The issue was more than minor because it reflected a programmatic issue and if left uncorrected, could lead to more significant safety concerns. The inspectors reviewed the finding for significance under Inspection Manual Chapter 0609 Appendix G, "Shutdown Operations Significance Determination Process," as the unit was shutdown when the violations occurred. Utilizing Exhibit 3 of Appendix A (since work was being performed on equipment supporting the Mitigating Systems cornerstone), the inspectors determined the finding was Green based on answering 'no' to all of the questions. Further, there is no evidence of adverse impacts to the plant as a result of the work hour violations. The licensee entered the issue into their CAP as AR-2015-7757.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

L. Weber, Chief Nuclear Officer  
J. Beer, Health Physicist  
J. Gebbie, Site Vice President  
T. Gottlieb, Design Engineering Supervisor  
R. Kalinowski, License Renewal Coordinator  
S. Lies, Engineering Vice President  
L. McClain, ISI Program Engineer  
J. Miller, Regulatory Affairs Supervisor  
S. Partin, Plant Manager  
M. Scarpello, NRA Manager  
W. Warren, Radiation Protection Manager  
W. Woods, Radiation Protection Manager  
R. Wynegar, NRC Coordinator

#### U.S. Nuclear Regulatory Commission

N. Shah, Project Engineer  
A. Dietrich, Project Manager  
D. Swarcz, Reactor Inspector

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

#### Opened

None

#### Closed

None

#### Discussed

None

## LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety, but rather that selected sections or 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.

### 1R01 Adverse Weather Protection

- AR-2014-11128, 12-VR-BATT failure, September 22, 2014
- AR-2014-7477, 12-VR-BATT-1 4kv EP voltage regulator battery, June 23, 2014
- AR-2015-3522, Loss of containment cooling due to offsite event, March 17, 2015
- NUMARC 93-01, Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, Revision 4
- WO 55298571, Porcelain damage to the line GOAB
- WO 55316007, 12-52-12AB, Replace 34.5 kv breaker
- WO 55446493, Relay needs to be calibrated during EP outage

### 1R04 Equipment Alignment

- 2-OHP-4021-008-001, Filling and Venting the Safety Injection System, Residual Heat Removal System, and Boron Injection Tank, Revision 41
- AR-2015-5020, J-box in Unit 2 West RHR pump room held on by duct tape, April 9, 2015
- 12-EHP-5030-017-001, Unit 1 & 2 Valve Enclosure Leak Rate Test, Revision 6
- 1-Figure 19.9, Diesel Generator Pot Settings, Revision 37
- 1-OHP-4021-032-008CD, Operating DG1CD Subsystems, Revision 27
- 2-OHL-5030-SOM-006, Unit 2 Turbine Tour Logs, Revision 65
- 2-OHP-4021-008-001, Filling and Venting the Safety Injection System, Residual Heat Removal System, and Boron Injection Tank, Revision 41
- AR-2013-3354, Part 21 Notification: Flowserve/Anchor Darling MOV, March 6, 2013
- AR-2014-7801, Work requests associated with Anchor Darling Part 21, July 1, 2014
- AR-2015-5293, Mating flange on 2-TK-87 warped/not parallel, April 14, 2015
- Drawing OP-1-5143-77, Flow Diagram Emergency Core Cooling (RHR) Unit 1
- Drawing OP-2-5106A-56, Flow Diagram, Aux Feedwater
- Unit 1 Control Room logs, May 28, 2015
- WO 55379076, 2E-RHR Pump mechanical seal leakage
- WO 55448315, 2-IMO-324, work requests associated with Anchor Darling Part 21
- WO 55463883, 2-IMO-330-ACT does not stay in manual operation

### 1R05 Fire Protection

- Fire Pre-Plans, Volume 1, FZ 107, 50, 52, Unit 2 633' Auxiliary Building, Revision 21
- Fire Pre-Plans, Volume 1, FZ 29F, MCC for Essential Service Water Pumps Unit 2, Revision 21
- Fire Pre-Plans, Volume 1, FZ 49, 106, 52, Unit 1 633' Auxiliary Building, Revision 21
- Fire Pre-Plans, Volume 1, FZ 73, Control Room HVAC Equipment Unit 2, Revision 21
- Fire Safety Analysis, Fire Area AA33, Unit 2 Essential Service Water Pump Area, Revision 0
- Fire Safety Analysis, Fire Area AA57B, Unit 2 Control Room HVAC Equipment, Revision 0
- Fire Safety Analysis, Fire Area Unit 1 633' Auxiliary Building, Revision 0
- Fire Safety Analysis, Fire Area Unit 2 633' Auxiliary Building, Revision 0

## 1R06 Flooding

- PMP-2270-DOR-001, Control of Station Doors, Revision 22

## 1R07 Heat Sink Performance

- 12-EHP-8913-001-002, Heat Exchanger inspection Unit 2 East CCW
- 12-EHP-8913-001-002, Heat Exchanger inspection Unit 2 West CCW
- 2-HE-15E, eddy Current data sheet
- AR 2015-3388, Unit 2 East ESW Flow to CCW Heat Exchanger found too High
- AR 2015-4207, U2C22-2-HE-15W, tube Plug Margin exceeded, March 28, 2015
- AR 2015-4302, Unit 2 West CCW heat Exchanger, March 29, 2015
- AR 2015-4492, U2C22, 2-HE-15W Tube Sheet Degradation
- AR 2015-4645, U2C22, 2-HE-15W Divider Plate As left Condition, April 3, 2015
- AR 2015-4872, U2C22, 2-HE-15E Tube Plug Margin Exceeded, April 7, 2015
- AR 2015-5491, Unit 2 West CCW Hx ESW Leak, April 16, 2015
- AR 2015-6206, 2-HE-15W, tube Sheet Coating to Stop Further Degradation, May 1, 2015
- MD-12-MS-068-N, Tubing Plugging Allowances for Safety-related Heat exchangers, Revision 4
- MDS-607, Heat Exchanger tube Plugging, Revision 16

## 1R08 Inservice Inspection Activities

- AR 2013-14850, Replace 2-CS-441-1 to Stop Boric Acid Leakage, October 4, 2013
- AR 2013-16471, Boric Acid Conditions on the Unit 2 West RHR Pump, October 27, 2013
- AR 2013-16660, Boric Acid on Lower Surface of Reactor Pressure Vessel, October 29, 2013
- AR 2013-17274, 2-RC-114-L3, Minor Spot of BA on Valve Body, November 8, 2013
- AR 2013-17340, U2 Seal Table, Minor Leakage on Thimble Tube E-5 and D-12, November 9, 2013
- AR 2014-1933, CTS Ring Header in U2 Lower Containment is Leaking Water, February 9, 2014
- AR 2014-1933, U2 CTS Spray Ring Header, Boric Acid Evaluation, March 13, 2014
- AR 2015-4074, Piping Below Minimum Operability Limit, March 26, 2015
- AR 2015-4194, U2C22 BMI Exam, March 28, 2015
- AR 2015-4428, NRC Observation, Magnetic Particle Procedure Review, March 31, 2015
- AR 2015-4457, NRC Observation, Vendor UT Procedure Review, March 31, 2015
- AR 2015-4546, NRC Observation, Liquid Penetrant Procedure Review, April 1, 2015
- BACC Evaluation 2013-14850, 2-CS-441-1, Boric Acid Evaluation, November 26, 2013
- BACC Evaluation 2013-16471, 2PP-35W, Boric Acid Evaluation, November 4, 2013
- BACC Evaluation 2013-16660, 2-OME, Boric Acid Evaluation, October 30, 2013
- BACC Evaluation 2013-17340, U2 Seal Table, Boric Acid Evaluation, November 11, 2013
- Document DIT-B-03570-00, Design Information Transmittal for NESW Pipe Wall Thinning, January 23, 2015
- Document PMP-5030-001-001, Boric Acid Corrosion Control, Revision 018
- NDE Report U2-PT-14-001, Liquid Penetrant Examination on 2-SI-9 Pipe Lug, March 16, 2015
- NDE Report U2-PT-14-004, Liquid Penetrant Examination on 2-SI-79 Pipe Lug, March 28, 2015
- Procedure 12-QHP-5050-NDE-001, Liquid Penetrant Examination, Revision 009
- Procedure 12-QHP-5050-NDE-002, Magnetic Particle Examination, Revision 006
- Procedure 12-QHP-5050-NDE-027, Visual Examination For Boric Acid and Condition of Component Surface, Revision 004
- Procedure 12-QHP-5070-NDE-002, Visual VT-2 Examinations, Revision 006

- Procedure LMT-10-PAUT-02, Manual Phased Array Ultrasonic Examination of Austenitic and Ferritic Piping Welds, Revision 0
- Procedure UT-110, Ultrasonic Examination of Vessel Welds and Adjacent Base Metal > 2.0" Thickness, March 15, 2015
- Procedure UT-95, Ultrasonic Examination of Austenitic Piping Welds, Revision 8
- Procedure UT-96, Ultrasonic Through Wall Sizing of Piping Welds, Revision 7
- Work Order No. 55402558-03, Visual Examinations of Metallic Containment Pressure Retaining Components and Their Integral Attachments, Dated March 30, 2015
- Work Order No. 55422151-01/05, Replace Valve 2SI-137, March 30, 2015

#### 1R11 Licensed Operator Regualification Program

- 2-OHP-4021-001-006, Power Escalation, Revision 56
- 2-OHP-4021-050-001, Turbine Generator Normal Startup and Operation, Revision 53
- As-found crew performance exercise guide, May 19, 2015

#### 1R12 Maintenance Effectiveness

- AR 2014-13088, Failure to Perform MRE on 1-URV-112 in U1C25, October 21, 2014
- AR 2014-13277, Unit 1 Main Steam Function MS-09 (a)(1) Process, October 23, 2014
- AR 2014-15215, Uncertainty in Steam Dump System Operation, December 9, 2014
- AR 2015-5830, 2-URV-120 Steam Dump Valve Failed Open during U2 Startup, April 23, 2015
- AR 2015-5831, Investigate 2-URV-125 due to 2-URV-120 and 130 Failing Open, April 23, 2015
- GT 2014-1895, Tracking GT for URV Plant Top 10 Item, February 7, 2014
- Plant Health Committee Top Ten Equipment Issues, Item 02, URVs Require Constant Maintenance and Rework
- System Health Report, Unit 1, Main Steam, 1<sup>st</sup> Quarter 2015
- System Health Report, Unit 2, Main Steam, 1<sup>st</sup> Quarter 2015
- WO 55453871-01, 1-EPT-110 Repair/Replace EPT and Regulator, October 21, 2014
- WO 55458757, Steam Dump I/P Transducers 2-EPT-110, January 6, 2015
- WO 55458758, Steam Dump I/P Transducers 1-EPT-110, January 6, 2015

#### 1R13 Maintenance Risk Assessments and Emergent Work Control

- 2-OHP-4021-082-008, Operation of CRID Power Supplies, Revision 26
- 2-OHP-4025-001-001, Emergency Remote Shutdown, Revision 11
- 2-OHP-4025-LS-2, Startup AFW, Revision 6
- 2-OHP-4025-LS-6, RCS Makeup with CVCS Cross-Tie, Revision 7
- AR-2015-6152, 1-6-2 DGCD not wired per prints, May 4, 2015
- AR-2015-6542, Unit 2 CRID voltage has lowered 3 volts, May 13, 2015
- Drawing OP-1-98043-56, 4kv Generator 1AB ACB elementary diagram
- GT-2015-7540, Potential landmine identified- PMP-4030-001-002, June 8, 2015
- Lift Plan 143514-LP-02, 1AB EDG Upper Frame Removal
- Outage Execution Scope Add Sheet, June 2, 2015
- PMP-2291-OLR-001, On-Line Risk Management, Revision 31
- PMP-4030-001-002, Administrative Requirements for Ventilation Boundary and High Energy Line Break Barriers, Revision 28
- WO 55465811, Replace capacitor bank C805

### 1R15 Operability Determinations

- AR-2015-5498, 2C4, April 17, 2015
- AR-2015-4415, Mode 1-4 Aggregate Operability Determination Evaluation for Unit 2, April 2, 2015
- PMP-5030-001-002, Control of Critical Parameters, Revision 7
- AR-2015-5018, As found surveillance data out of tolerance, April 9, 2015
- AR-2015-5123, 2-NPP-151 As found out high, April 11, 2015
- AR-2015-5635, 2-NRI-36 high level trip high out of tolerance, April 19, 2015
- AR-2015-4092, 2-MPP-231 zero was found low out of specifications, March 27, 2015
- AR-2015-4099, As-found data for 2-NRI-31 out of tolerance, March 27, 2015
- Drawing OP-1-98043-56, 4kv Generator 1AB ACB elementary diagram
- DB-12-EDG, Emergency Diesel Generators, Revision 7

### 1R18 Plant Modifications

- 12-EHP-5040-MOD-001, Data Sheet 16, Simplified TM Design Packet Form, 2-TM-15-20-RO, Isolate Steam and Control Air to 2-URV-125
- 12-EHP-5040-MOD-001, Temporary Modification, Revision 24
- 12-EHP-5040-MOD-009, Engineering Change Reference Guide, Revision 55
- AR 2015-6883, 50.59 Screen Design Function Question During Training, May 20, 2015
- AR 2015-8058, TMOD Process for Procedure-Controlled Temporary Modification, June 17, 2015
- PMP-2350-SES-001, 10 CFR 50.59 Reviews, Revision 17

### 1R19 Post-Maintenance Testing

- 12-EHP-4030-056-218, Automatic Operation of the Auxiliary Feedwater Pumps, Revision 11
- 12-IHP-6030-IMP-355, Check of Control Room Distribution Power Supply before Returning to Normal Power Source, Revision 10
- 12-MHP-5021-056-010, Turbine Driven Auxiliary Feed Pump Overspeed Trip Tests, Revision 16
- 2-OHP-4021-082-008, Operation of CRID Power Supplies, Revision 26
- 2-OHP-4030-203-052W, West Centrifugal Charging Pump Operability Test, Revision 20
- 2-OHP-4030-208-008R, ECCS Check Valve Test, Revision 23
- 2-OHP-4030-232-217B, DG2AB Load Sequencing and ESF Testing, Revision 45
- AR-00020706, U2 CD Diesel Generator is on increased frequency, July 18, 1999
- AR-2013-17642, 2W-CCP pump performance, November 14, 2013
- AR-2015-4400, Loss of indication during 2AB EDG surveillance, March 31, 2015
- AR-2015-5783, Evaluate U2 West CCP performance, April 22, 2015
- DB-12-AFWS, Auxiliary Feedwater System, Revision 5
- DB-12-CVCS, Chemical and Volume Control System Design Basis Document, Revision 6
- DIT-B-02532, Acceptable Performance Range for new/rebuilt CCPs
- DIT-B-02969-01, Allowable BHP for Replacement CCP
- EC 53589, Replace U2 CCP rotors, Revision 0
- PMP-4030-TRT-001, Time Response and Verification of Engineered Safety Features, Revision 15
- Unit 2 Control Room Logs, April 18, 2015
- Various wavebook traces of 2AB EDG voltage and frequency, Unit 2 Spring 2015 refueling outage
- Various wavebook traces of 2CD EDG voltage and frequency, Unit 2 Spring 2015 refueling outage

- WO 55259774, 2-QT-507/2-OME-39, Perform Functional Test (Mechanical/Electrical Over Speed Trip Test)
- WO 55289104-03, Weld Repair LP-A Exhaust Hood Cone/Diffuser
- WO 55289104-09, Weld Repair LP-C Exhaust Hood Diffuser
- WO 55436410, Perform as-found flow balance 2-EHP-4030-203-208
- WO 55439365, Ops Support 056-218 4.4 S/G Lo-Lo signal 2/4 S/Gs Tr A
- WO 55463945, 2-FMO-211 ACT, Investigate failure for valve to close
- WO 55465811, Replace capacitor bank C805
- WO 55465811-03, Perform PMT, 2-CRID-1-INV

### 1R20 Outage Activities

- 12-EHP-4030-002-356, Low Power Physics Tests with Dynamic Rod Worth, Revision 11
- 12-MHP-4030-031-001, Inspection of the Recirculation Sump, Revision 17
- 12-OHP-4022-018-001, Loss of Spent Fuel Pit Cooling, Revision 22
- 12-OHP-4050-FHP-034, Reactor Vessel Head Installation with Fuel in the Vessel, Revision 17
- 1-OHP-4021-001-001, Plant Heatup from Cold Shutdown to Hot Standby, Revision 72
- 1-OHP-4021-001-003, Power Reduction, Revision 56
- 1-OHP-4021-001-004, Plant Cooldown from Hot Standby to Cold Shutdown, Revision 72
- 2-IHP-5040-EMP-016, Provide Temporary Power from Non-Plant Bus Source to the Unit 2 Containment Welding Receptacles during a Unit 2 Refueling Outage, Revision 3
- 2-OHP-4021-001-001, Plant Heatup from Cold Shutdown to Hot Standby, Revision 81
- 2-OHP-4021-001-002, Reactor Startup, Revision 53
- 2-OHP-4021-001-006, Power Escalation, Revision 56
- 2-OHP-4021-018-005, Operation of Refueling Cavity and Support Systems, Revision 52
- 2-OHP-4021-050-001, Turbine Generator Normal Startup and Operation, Revision 53
- 2-OHP-4030-227-041, Refueling Integrity, Revision 29
- AR 2015-4781, Receiving 21A bus ground alarms, April 5, 2015
- AR-2013-6498, RWP pump tripped with no SFP subpanel or either CR alarm, April 30, 2013
- AR-2014-11376, SFP water level hi alarm, standing level at 24', September 26, 2014
- AR-2015-4829, Concrete crack propagating from 2-CPN-3, April 6, 2015
- AR-2015-5304, Boric acid found on lower surface of U2 Rx vessel, April 14, 2015
- AR-2015-5488, Recirc sump- small gap between wall and structure, April 16, 2015
- AR-2015-5593, Erroneous information included in WOER 20012253, April 20, 2015
- AR-2015-5596, Incorrect torque specified in CREM of WO task 55436638, April 20, 2015
- AR-2015-7757, Working hour violation, June 11, 2015
- AR-2015-7967, Packing leak on 1-NFP-222-V2, June 16, 2015
- AR-2015-8041, Unexpected material at top of #12 RCP seal package, June 16, 2015
- Boron chemistry results for transfer canal, RHR system, RWST, and cavity, April 1 through April 10, 2015
- DIT-S-06301-00, Unit 1 Mid-cycle time to boil information
- Drawing E-1100-8, 69KV Station
- Drawing OP-2-5105A-51, Flow Diagram, Main Steam Unit 2
- EC 53362, Unit 2 Cycle 22 Core Reload, Revision 0
- Fire Pre-Plans, Volume 1, Revision 20
- Fire Pre-Plans, Volume 3, Revision 20
- Reactor Trip report, Unit 2 Reactor Manual trip, April 23, 2015
- Vendor Manual VTD-CCIN-0002, Control Components Inc. Containment Sump Strainer Installation Manual, Revision 0
- Westinghouse InfoGram 02-4, RCP Shaft Crack Investigation, December 5, 2002
- WO 55464197, Address gap found during recirc sump inspection

## 1R22 Surveillance Testing

- 12-MHP-4030-010-001, Ice Condenser Basket Weighing Surveillance, Revision 020
- 12-MHP-4030-010-002, Ice Condenser Flow Channel Surveillance, Revision 10
- 12-MHP-5021-010-005, Ice Condenser Ice Baskets removal, Inspection, repair and Installation, Revision 5
- 2-EHP-4030-218-001, RWST Isolation Valve Leak Test, Revision 23
- 2-EHP-4030-234-203, Unit 2 LLRT, Revision 23
- 2-OHP-4021-018-005, Operation of the Refueling Cavity and Support Systems, Revision 51
- 2-OHP-4030-208-008R, ECCS Check Valve Test, Revision 23
- 2-OHP-4030-232-217A, DG2CD Load Sequencing and ESF Testing, Revision 43
- 2-OHP-4030-232-217B, DG2AB Load Sequencing and ESF Testing, Revision 45
- 2-OHP-4030-232-217B, DG2AB Load Sequencing and ESF Testing, Revision 45
- 50.59 2015-0147-00, Applicability Determination for Ice Surveillance Scope Reduction, Revision 0
- AR 2015-5607, NRC (U2C22) Final Ice Condenser Walkdown, April 18, 2015
- AR-2015-4085, 2-IMO-204 will not open from the control room, March 26, 2015
- AR-2015-4252, PPC point PPC2:Y0921D failed to pick up during 217B, March 28, 2015
- AR-2015-4668, Non-Zero leakage of 2-RH-130, April 3, 2015
- AR-2015-4668, Non-zero leakage of 2-RH-130, April 3, 2015
- AR-2015-4702, 2-RH-130 failed surveillance leak rate test, April 4, 2015
- AR-2015-4702, 2-RH-130 failed surveillance leakage test, April 4, 2015
- AR-2015-4737, Failed check valve, April 6, 2015
- AR-2015-4863, U2C22 LLRT failure 2-N-160, April 8, 2015
- AR-2015-5057, 2-CS-442-4 RCP seal injection check valve failed LLRT, April 10, 2015
- AR-2015-6596, NRC identified need for a PODE on 2-RH-130 leakage, May 14, 2015
- AR-2015-6596, NRC identified need for PODE on 2-RH-130 leakage, May 14, 2015
- Basis Document for the ECCS Recirculation Loop Leakage Program, Revision 4
- DB-12-RPS, Reactor Protection and Engineered Safety Features Actuation Systems Design Basis Document, Revision 5
- DB-12-RPS, Reactor Protection and Engineered Safety Features Actuation Systems Design Basis Document, Revision 5
- Drawing 2-OP-5143-72, Flow Diagram Emergency Core Cooling (RHR) Unit 2
- Drawing OP-2-5142-52, Emergency Core Cooling (SIS)
- Drawing OP-2-5143-72, Emergency Core Cooling (RHR)
- GT-2015-5731, 2-HV-CUV-4 and heaters not tested during 217B, April 21, 2015
- U2C18-U2C22 historic leakage results for 2-RH-130
- UFSAR Chapter 6, Engineered Safety Features, Revision 25
- WO 55401987, Torque valve shut to support 2-OHP-4021-018-005
- WO 55463260, EDPM 2-RH-130 Perform leak tests at inc torques

## 1EP6 Drill Evaluation

- 1-OHP-4023-E-0, Reactor Trip or Safety Injection, Revision 37
- 1-OHP-4023-E-1, Loss of Reactor Coolant or Secondary Coolant, Revision 20
- 1-OHP-4023-ES-1.1, SI Termination, Revision 19
- 1-OHP-4023-ES-1.2, Basis Document, Revision 12
- 1-OHP-4023-ES-1.2, Post LOCA Cooldown and Depressurization, Revision 16
- EP Training Drill Guide, June 24, 2015, drill

## 2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01)

- 12-THP-6010-RPP-905, Solid Waste/Material Handling and Packaging, Revision 016
- AR 2014-11486, Dose Alarm ACAD 21970, September 28, 2014
- AR 2014-12830, Revisit Methodology for Down-Posting Very High Radiation Areas, October 17, 2014
- AR 2015-02480, Locked High Radiation Padlock Key Not Correct in the Key Inventory, February 19, 2015
- AR 2015-0615, Consistency Gap in Down-posting Very-High Radiation Areas, January 15, 2015
- AR 2015-4553, Dose Evaluation 2843 Dose Rate Alarm Due to Electronic Dosimeter Run through the X-Ray, April 1, 2015
- AR 2015-4805, Several Air Samples Not Collected for Minimum Time, April 6, 2015
- AR 2015-4815, Unanticipated dose Rate Alarm, April 6, 2015
- AR 2015-4875, Procedure Violation High-Radiation Area Postings, April 7, 2015
- PMP-6010-RPP-003, High, Locked High, and Very-High Radiation Area Access, Revision 025
- Survey SW-VSDS-M-20150325-15, U2C22 Regenerative Heat Exchanger-Initial Entry, March 25, 2015
- Survey SW-VSDS-M-20150404-16, U2C22 Regenerative Heat Exchanger-Shielding Modifications, April 4, 2015

## 2RS2 Occupational ALARA Planning and Controls (71124.02)

- ALARA Committee Agenda A-14-07-18S, June 10, 2014
- ALARA Committee Agenda A-14-09-12F, June 2, 2014
- ALARA Committee Agenda A-14-09-18F, June 24, 2014
- ALARA Committee Agenda A-15-20F, April 8, 2015
- AR 2014-12175, Radiation Work Permit 141151 Has Exceeded its Dose Estimate by 154.8 Percent, October 7, 2014
- AR 2014-12303, Change in Reactor Coolant Pump/ Steam Generator Sequence Was Not Communicated, October 9, 2014
- AR 2014-12345, Scope Not defined in Outage Procedures OUT-001 and OUT-002, October 9, 2014
- AR 2014-12391, Radiological Conditions in ALARA Plan, October 9, 2014
- AR 2014-12509, Unit 1 Steam Generator Primary side Activities Dose, October 12, 2014
- AR 2014-12760, Nozzle Dam Equipment Obstructing Critical Path XMTR Fill/Vent, October 16, 2014
- AR 2014-13645, ARMA-14-10-02, Deficiencies in Dose Control, October 31, 2014
- GT 2014-12503, U1C26 Steam Generator Allotment Exceeded, October 12, 2014
- GT 2014-2909-23, Steam Generator Eddy Current Team Goal Number 19, Conduct Post-Outage Review, October 31, 2014
- PMP-6010-ALA-001, ALARA In-Progress Review Regenerative Heat Exchanger Activities, April 5, 2015
- PMP-6010-ALA-001, ALARA In-Progress Review Steam Generator Primary Side Activities, October 2, 2014
- PMP-6010-ALA-001, ALARA In-Progress Review Steam Generator Primary Side Activities, October 8, 2014
- PMP-6010-ALA-001, ALARA In-Progress Review Steam Generator Primary Side Activities, October 13, 2014
- PMP-6010-ALA-001, ALARA In-Progress Review Steam Generator Primary Side Activities, October 20, 2014

- PMP-6010-ALA-001, ALARA In-Progress Review Steam Generators and Support Work, December 29, 2014
- RWP 141148, Steam Generator Primary Work, Revision 00
- RWP 141148, Steam Generator Primary Work, Revision 01
- RWP 141148, Steam Generator Primary Work, Revision 02
- RWP 141148, Steam Generator Primary Work, Revision 03
- RWP 152142, Install, Modify and Remove Scaffold in Unit 2 Containment, Revision 00
- RWP 152151, Remove Lower Motor Bearing Oil Spill Pans, Instrumentation, Inspect/Replace Seal Package, Support Work on the Reactor Coolant Pump, Revision 01
- RWP 152175, Regenerative heat Exchanger Activities, Revision 00

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08)

- 12-THP-6010-RPP-010, Receipt of Radioactive Material, Revision 19
- 12-THP-6010-RPP-900, Preparation of Radioactive Shipments, Revision 30
- 12-THP-6010-RPP-901, Resin Transfer to Qualified Shipping Container, Revision 11
- 12-THP-6010-RPP-902, Dewatering of High Integrity Containers, Revision 05
- 12-THP-6010-RPP-903 006, Activity Determination and Waste Classification, Revision 06
- 12-THP-6010-RPP-904, High Integrity Containers, Revision 06
- 12-THP-6010-RPP-905, Solid Waste/Material Handling and Packaging, Revision 16
- 12-THP-6010-RPP-906, Processing Wet Radioactive Waste, Revision 03
- 12-THP-6010-RPP-907, Operation of the Radioactive Material Building, Revision 06
- 12-THP-6010-RPP-908, Surveys, Inventory, and Inspection Of Stored Radioactive
- 12-THP-6010-RPP-909, Filter Packaging, Revision 03
- 12-THP-6010-RPP-911, Cask Handling For Radioactive Shipments, Revision 06
- 12-THP-6010-RPP-913, Scaling Factor Determination, Revision 05
- 12-THP-6010-RPP-915, Setup and Operation of Energy Solutions Self-Engaging
- 12-THP-6010-RPP-916, Dewatering Of Bead Resin/Activated Charcoal Using the Energy
- AR 2013-10336, Abandoned Equipment Requires Additional Controls, July 18, 2013
- AR 2013-13347, Radioactive Package Opened By Security at Post One, September 10, 2013
- AR 2014-05044, Projects Equipment Loaded for Shipment Not Properly drained, April 22, 2014
- AR 2014-09926, Trend in Events Associated with Radioactive Resin Sluicing, August 22, 2014
- AR 2014-15982, Received Radioactive Shipment at Bridgman Material Center, December 30, 2014
- AR 2015-01188, Informal Process for Informing Security – Radioactive Cargo, January 27, 2015
- AR 2015-01602, Procedure for Sluicing Unit 2 South Deborating Demineralizer, February 3, 2015
- AR 2015-02600, Unit 2 North Deborator Vent to WDS Blocked, February 23, 2015
- AR 2015-03597, Incorrect Radiological Characterization of Resin Liner, March 18, 2015
- AR 2015-04529, Performa Internal Inspection of the Spent Resin Storage Tank, April 1, 2015
- AR 2015-3583, Potential DOT Violation for EMPTY Package Transfer, March 17, 2015
- Dewatering System Fill Head, Revision 07
- GT 2013-12676, Spent Fuel Pit Filter Found in Two Pieces During Storage, August 28, 2013
- GT 2015-2743, Investigate Shipping Requirements after Radioisotope Treatments, February 26, 2015
- Indiana and Michigan Power D. C. Cook Nuclear Plant Updated Final Safety Analysis Report, Chapter 11, Revision 26
- PMP-6010-PCP-900, Radioactive Waste Process Control Program, Revision 12

- PMP-6010-PCP-901, Shipment of Radioactive Materials And Waste, Revision 07
- Shipment DCC 14-003, February 20, 2014
- Shipment DCC 14-026, July 8, 2014
- Shipment DCC 14-043, August 13, 2014
- Shipment DCC 14-056, October 18, 2014
- Shipment DCC 14-068, November 11, 2014
- Shipment DCC 14-077, December 16, 2014
- Shipment DCC 15-022, April 11, 2015
- Shipment DCC15-027, May 1, 2015
- Solutions Self Engaging Dewatering System, Revision 0
- Waste, Revision 10

#### 4OA2 Identification and Resolution of Problems

- 12-IHP-6030-IMP-073, Time Delay Relay Calibration, Revision 12
- AR-2014-15583, WO for 1-CS-314 did not include required pressure test, December 17, 2014
- AR-2015-0566, Legacy conduit (raceway) overflow issue in Edison database, January 14, 2015
- AR-2015-2686, NRC identified a potential cognitive trend, February 24, 2015
- AR-2015-3019, Legacy cable tray fill issue in Edison database, March 4, 2015
- AR-2015-3387, EC-52453 affected cable trays are overfilled, March 12, 2015
- AR-2015-3478, Legacy overflow issue in Edison database, March 16, 2015
- AR-2015-3896, RCS temperature and pressure limits for #2 RCP seals, March 24, 2015
- AR-2015-7649, Potential trend of cross cutting aspect QA2, June 10, 2015
- AR-2015-8230, Review safety culture code application for gap, June 24, 2015
- AR-2015-8308, Failure to perform extent of condition during DCE, June 25, 2015
- ICP-01579, Resolution to Legacy Overflow Issues for Cable-Raceway 2TM-C19 and 2TM-C267
- ICP-01582, Resolution to Legacy Overflow Issues for conduits 2-12567-2 and 2-12554-2
- PMP-2291-WMP-001, Work Management Process Flowchart, Revision 36
- WO 55433453, South Spent Fuel Pit Pump Operational Test

#### 4OA3

- 2-OHP-4023-E-0, Reactor Trip or Safety Injection, Revision 39
- PMP-2080-EPP-101, Emergency Classification, Revision 18

#### 4OA5 Other Activities

- 2014-5478, NRC Comments on Structural Monitoring Program, May 2, 2014
- AR 2011-0206, 2W RHR Pump Cover Bolts With Boric Acid Deposits on Top, January 6, 2011
- AR 2011-12437, Possible Through Wall Leak Near 1-NFP-222-V2, October 23, 2011
- AR 2012-15864, Damaged Coating on Buried Piping, December 20, 2012
- AR 2013-12968, Coating Degradation on Buried Storm Drain Piping, September 3, 2013
- AR 2013-3142, Water Leaking from Under Walkway into Security Diesel Fill Berm, March 3, 2013
- AR 2014-5414, Wrong PMIDs Referenced on Commitment Closure, May 1, 2014
- AR 2014-5425, 2-QT-506, Bent Limit Switch Plate, May 1, 2014
- AR 2014-5582, UFSAR Update Missed when Commitment was Revised, May 6, 2014
- AR 2014-5870, 12-FP-662, Small Leak on Pegging Pump Discharge Crosstie Valve, May 13, 2014
- AR 2014-5903, System Walkdown Criteria not Met During System Walkdown, May 14, 2014
- AR 2014-5950, System Testing Program for License Renewal, May 15, 2014
- AR 2014-5978, Revise Procedure to Incorporate NRC Commitment, May 15, 2014

- AR 2014-5985, EDG Exhaust Silencer Safety Class, May 15, 2014
- AR 2014-6008, Personnel May Not Fully Appreciate Age Management of SSCs, May 16, 2014
- AR 2014-6011, Lack of Detail in Aging Management Instructions, May 16, 2014
- AR 2014-6020, NRC Position on Small Bore Piping, May 16, 2014
- SD-060111-001, Fatigue Analysis of Feed Water Piping Penetrations, Revision 1
- WO 55349744, Perform COT Inspection on Piping Near Valve 1-R-399, October 24, 2014
- WO 55350254, Perform a Visual Inspection on Piping at Valve 12-SF-118N, August 27, 2014
- WO 55350256, Perform a Visual Inspection on Piping at Valve 1-WW-256, August 20, 2014
- WO 55426864, 1-SV-62-2, Piping Chemistry One Time Inspection-UT/Visual, September 26, 2014
- WO 55428641, Perform COT Exam on 12-DPX-505-V1, May 19, 2014
- WO 55428702, 1-WW-186, Chemistry One Time VT-1 Inspection, May 8, 2014
- WO 55428703, 1-CTI-321-TW, Perform Chemistry One Time Inspection, June 24, 2014
- WO 55428705, 12-WW-209, Chemistry One Time Inspection, May 7, 2014
- WO 55428711, Perform COT Exam on 12-DPX-506-V1, May 19, 2014
- WO 55430446, 1-QT-104AB, Perform Visual Internal Inspection of Unit 1 AB EDG Exhaust Silencer, June 23, 2014
- WO 55430447, 1-QT-104CD, Perform Visual Internal Inspection of Unit 1 CD EDG Exhaust Silencer, August 26, 2014
- WO 55434535, 12-AUX-551, Chemistry One Time Inspection, June 19, 2014
- WO 55434538, COT Inspection on the 6 inch Drip Pot, May 14, 2014
- WO 55442970, Cable 30697-12 Tan-Delta and AC Withstand Test, September 23, 2014
- WO 55442972, Cable 30698-12 Tan-Delta and AC Withstand Test, October 7, 2014

## LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access and Management System
AEP	American Electric Power
ALARA	As-Low-As-Reasonably-Achievable
AR	Action Request
ASME	American Society for Mechanical Engineers
BACC	Boric Acid Corrosion Control
CAP	Corrective Action Program
CASS	Cast Austenitic Stainless Steel
CFR	<i>Code of Federal Regulations</i>
CRID	Control Room Instrumentation Distribution
EDG	Emergency Diesel Generator
IP	Inspection Procedure
IR	Inspection Report
ISI	Inservice Inspection
NCV	Non-Cited Violation
NDE	Non-Destructive Examinations
NRC	U.S. Nuclear Regulatory Commission
NRR	Nuclear Reactor Regulation
PARS	Publicly Available Records System
PM	Preventive Maintenance
RCS	Reactor Coolant System
RFO	Refueling Outage
RHR	Residual Heat Removal
RWP	Radiation Work Permit
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
WO	Work Order

July 31, 2015

Mr. Larry Weber  
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 INTEGRATED INSPECTION REPORT 05000315/2015002; 05000316/2015002

Dear Mr. Weber:

On June 30, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Donald C. Cook Nuclear Power Plant, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on July 31, 2015, with Mr. J. Gebbie, and other members of your staff.

No NRC-identified or self-revealing findings were identified during this inspection. However, the inspectors documented a licensee-identified violation which was determined to be of very low safety significance in this report. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy.

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's Public Document Room or from the Publicly Available Records (PARS) component of the 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 Nirodh Shah Acting for/**  
Kenneth Riemer, Chief  
Branch 2  
Division of Reactor Projects

Docket Nos. 50-315; 50-316  
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Letter to Mr. Larry Weber from Mr. Kenneth Riemer dated July 31, 2015.

SUBJECT: DONALD C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2  
NRC INTEGRATED INSPECTION REPORT 05000315/2015002;  
05000316/2015002

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