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

August 6, 2013

Mr. Larry Weber
Senior Vice President and
Chief Nuclear Officer
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106

SUBJECT: D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2 – NRC INTEGRATED INSPECTION REPORT 05000315/2013003 and 05000316/2013003

Dear Mr. Weber:

On June 30, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your D. C. Cook Nuclear Power Plant, Units 1 and 2. The enclosed report documents the results of this inspection, which were discussed on July 23, 2013, with Mr. J. Gebbie, and other members of your staff.

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

Two NRC identified findings of very low safety significance (Green) were identified during this inspection. The findings involved a violation of NRC requirements. However, because of their very low safety significance, and because the issues were entered into your corrective action program, the NRC is treating the issues as non-cited violations (NCVs) in accordance with Section 2.3.2 of the NRC Enforcement Policy.

If you contest the subject or severity of this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the D. C. Cook Nuclear Power Plant. In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the D. C. Cook Nuclear Power Plant.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

John B. Giessner, Chief
Branch 4
Division of Reactor Projects

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

Enclosure: Inspection Report 05000315/2013003; 05000316/2013003
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:	05000315/2013003; 05000316/2013003
Licensee:	Indiana Michigan Power Company
Facility:	D. C. Cook Nuclear Power Plant, Units 1 and 2
Location:	Bridgman, MI
Dates:	April 1 through June 30, 2013
Inspectors:	J. Ellegood, Senior Resident Inspector P. LaFlamme, Resident Inspector B. Bartlett, Senior Resident Inspector, Byron J. Cassidy, Senior Health Physicist J. Laughlin, Emergency Preparedness Inspector, J. Lennartz, Project Engineer E. Sanchez Santiago, Reactor Inspector
Approved by:	John B. Giessner, Chief Branch 4 Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

Inspection Report (IR) 05000315/2013003, 05000316/2013003; 04/01/2013 – 06/30/2013; D. C. Cook Nuclear Power Plant, Units 1 and 2; Outage Activities; Identification and Resolution of Problems.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Two Green findings were identified. Both findings were considered non-cited violations (NCVs) of NRC regulations. The significance of inspection findings are indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated June 2, 2011. Cross-cutting aspects are determined using IMC 0310, "Components Within the Cross-Cutting Areas," dated October 28, 2011. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated January 28, 2013. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealed Findings

Cornerstone: Initiating Events

- Green: The inspectors identified a finding of very low safety significance with an associated non-cited violation of Technical Specification (TS) 5.4.1 for failure to implement procedures listed in Regulatory Guide 1.33. Specifically, the licensee's boric acid control program requires boric acid leakage conditions be identified and documented. However, licensee personnel failed to identify a boric acid deposit indicative of a through-wall leak on the reactor coolant system (RCS) 'B' loop flow indicator instrument line, which was identified by the inspectors. Corrective actions included replacing the section of pipe with the leak and entering the condition into the corrective action program (CAP).

  The inspectors determined that the failure to identify the boric acid leakage as required by licensee procedures was a performance deficiency that warranted a significance determination. The performance deficiency adversely impacted the initiating events cornerstone objective of limiting the likelihood of events that upset plant stability in that the through-wall leak impacted the equipment performance attribute of barrier integrity. Specifically, the through-wall leak could further deteriorate and result in higher leakage. The inspectors determined the finding was not of more than very low safety significance (Green) using Exhibit 1 of IMC 0609, Appendix A, because the finding could not reasonably result in exceeding the RCS leak rate for a small break loss-of-coolant accident (LOCA); and could not have likely affected other systems used to mitigate a loss of coolant. The finding includes a cross-cutting aspect of planning of work activities (H.3(a)) in the area of human performance. Specifically, the planning did not account for job site conditions, including systems, structures and components that may impact the ability to identify boric acid residue. (Section 1R20)

Cornerstone: Mitigating Systems

- Green: The inspectors identified a non-citied violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," because the licensee failed to properly install seismically qualified scaffolds adjacent to safety-related equipment as required by site procedures. Specifically, the licensee's Scaffolding Guidelines procedure requires that scaffold builds not be erected in contact with plant equipment. Contrary to this requirement, the inspectors identified several instances where erected scaffolds were in contact with safety-related equipment. For corrective actions, the licensee completed a walk down of all erected scaffolds installed on site, briefed scaffold crews on equipment clearance requirements, are revising the Scaffolding Guidelines procedure to include increased supervisory oversight and separation gap requirements, and entered the condition into the CAP.

  The inspectors determined that failure to properly implement the scaffolding procedure was a licensee performance deficiency that warranted a significance determination. The performance deficiency adversely impacted the Mitigating Systems cornerstone and its objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The issue affected the protection against external factors attribute for this cornerstone. Specifically, several scaffolds were erected in contact with safety-related equipment which could challenge the availability, reliability and capability of safety-related systems affected during a seismic event. The inspectors determined the finding was not of more than very low safety significance (Green) using Exhibit 2 of IMC 0609, Appendix A, because the finding did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic event. The inspectors concluded that this finding was associated with a cross-cutting aspect in the work practice component of the human performance cross-cutting area. Specifically, contractor oversight and operations supervision did not provide effective oversight to prevent scaffold contact with safety-related equipment (H.4(c)). (Section 4OA2)

REPORT DETAILS

Summary of Plant Status

Unit 1 was in a shutdown condition to conduct Cycle 25 refueling outage activities when the inspection period started. On May 18, 2013, the reactor was taken critical and the main generator was synchronized to the grid on May 19 to end the Cycle 25 refueling outage. After reaching 88 percent power on May 22, a rapid downpower to 48 percent was performed to repair an electrohydraulic control leak on the east main feedwater pump turbine stop valve. After the repair, Unit 1 attained full power on May 24, 2013. Unit 1 remained at or near 100 percent power for the remainder of the inspection period.

Unit 2 operated at or near 100 percent power for the entire 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 and alternate alternating current (AC) power systems during adverse weather were appropriate. The inspectors reviewed the licensee's procedures affecting these areas and the communications protocols between the transmission system operator (TSO) and the plant to verify that the appropriate information was being exchanged when issues arose that could impact the offsite power system. Examples of aspects considered in the inspectors' review included:

- The coordination between the TSO and the plant during off-normal or emergency events;
- The explanations for the events;
- The estimates of when the offsite power system would be returned to a normal state; and
- The notifications from the TSO to the plant when the offsite power system was returned to normal.

The inspectors also verified that plant procedures addressed measures to monitor and maintain availability and reliability of both the offsite AC power system and the onsite alternate AC power system prior to or during adverse weather conditions. Specifically, the inspectors verified that the procedures addressed the following:

- The actions to be taken when notified by the TSO that the post-trip voltage of the offsite power system at the plant would not be acceptable to assure the continued operation of the safety-related loads without transferring to the onsite power supply;
- The compensatory actions identified to be performed if it would not be possible to predict the post-trip voltage at the plant for the current grid conditions;

- A re-assessment of plant risk based on maintenance activities which could affect grid reliability, or the ability of the transmission system to provide offsite power; and
- The communications between the plant and the TSO when changes at the plant could impact the transmission system, or when the capability of the transmission system to provide adequate offsite power was challenged.

Documents reviewed are listed in the Attachment to this report. The inspectors also reviewed CAP items to verify that the licensee was identifying adverse weather 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.

b. Findings

No findings were identified.

.2 Summer Seasonal Readiness Preparations

a. Inspection Scope

The inspectors performed a review of the licensee's preparations for summer weather for selected systems, including conditions that could lead to an extended drought.

During the inspection, the inspectors focused on plant specific design features and the licensee's procedures used to mitigate or respond to adverse weather conditions. Additionally, the inspectors reviewed the Updated Final Safety Analysis Report (UFSAR) and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant specific procedures. Specific documents reviewed during this inspection are listed in the Attachment to this report. The inspectors also reviewed CAP items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their CAP in accordance with station corrective action procedures. The inspectors' reviews focused specifically on the following plant systems:

- Unit 1/2 fire pump house;
- Unit 1/2 screen house; and
- Unit 1/2 auxiliary building.

This inspection constituted one seasonal adverse weather sample as defined in IP 71111.01-05.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

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

- Unit 1 'AB' emergency diesel generator (EDG);
- Unit 1 'CD' reserve feed transformer; and
- Unit 2 east residual heat removal system.

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, 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.

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 17E, Unit 1 turbine-driven Auxiliary Feedwater (AFW) pump;
- Fire Zone 17D, Unit 1 east motor-driven AFW pump;
- Fire Zone 17A, Unit 1 west motor-driven AFW pump; and
- Fire Zone 55, Unit 1 CD battery room.

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.

1R07 Annual Heat Sink Performance (71111.07)

a. Inspection Scope

The inspectors reviewed the licensee's inspection of Unit 1 component cooling water system heat exchangers to verify that potential deficiencies did not mask the licensee's ability to detect degraded performance, to identify any common cause issues that had the potential to increase risk, and to ensure that the licensee was adequately addressing problems that could result in initiating events that would cause an increase in risk. The inspectors observed licensee visual observations of the internals of the heat exchanger to verify cleanliness of the heat exchanger. 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 (71111.08P)

From April 1, 2013, through April 12, 2013, the inspectors conducted a review of the implementation of the licensee's Inservice Inspection (ISI) Program for monitoring degradation of the Unit 1 RCS, steam generator tubes, Emergency Feedwater Systems, Risk Significant Piping and Components, and Containment Systems.

The inspections described in Sections 1R08.1, 1R08.2, 1R08.3, 1R08.4, and 1R08.5 below constituted one inservice inspection sample as defined in IP 71111.08-05.

.1 Piping Systems Inservice Inspection

a. Inspection Scope

The inspectors observed and reviewed records of the following non-destructive examinations (NDE) mandated by the American Society of Mechanical Engineers (ASME) Section XI Code 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 an NRC-approved alternative requirement:

- Ultrasonic (UT) examination of ASME Code Class 1, risk-informed (R-A), pipe-to-pipe weld, 1-RC-5-03F;
- UT of ASME Code Class 1, Reactor Vessel Closure head Studs; 1 through 54; and
- UT of ASME Code Class 2, nozzle-to-shell inner radius; STM-14-FWN-IRS.

The inspectors reviewed the following Dye Penetrant (PT) weld examinations with recordable indications identified during the previous refueling outage, to determine whether the indication was characterized, recorded, and evaluated in accordance with the ASME Code Section XI requirements to accept the weld for continued service:

- PT of Code Class 1 collar to pipe weld (1-SI-22-06F)

The inspectors reviewed NDE records and observed welding associated with the following pressure boundary welds completed for risk significant systems during the current refueling outage to determine whether the licensee applied the pre-service NDE and acceptance criteria required by the Construction Code and ASME Code, Section XI. Additionally, the inspectors reviewed the welding procedure specification and supporting weld procedure qualification records to determine whether the weld procedure was qualified in accordance with the requirements of the Construction Code and the ASME Code Section IX:

- Welds OW-1, 3 and OW-5 associated with replacement valve 1-NRV-102 (WO 55392571-01)

The inspectors also reviewed NDE records associated with the following pressure boundary welds completed for risk significant systems since the beginning of the last refueling:

- Welds OW-1, 2, 4, 5 and OW-6 associated with replacement of valve 1-SI-214E (WO 55380711-28); and
- Welds OW-1 and OW-2 associated with replacement of valve 1-QRV-114 (WO 55373722-01).

b. Findings

No findings were identified.

.2 Reactor Pressure Vessel Upper Head Penetration Inspection Activities

a. Inspection Scope

For the Unit 1 reactor vessel head, no examination was required pursuant to 10 CFR 50.55a(g)(6)(ii)(D) for the current refueling outage. Therefore, 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 observed the licensee's Boric Acid Corrosion Control visual examinations for portions of the RCS, and verified whether these visual examinations emphasized locations where boric acid leaks can cause degradation of safety significant components.

The inspectors reviewed the following licensee evaluations of RCS components with boric acid deposits to determine whether degraded components were documented in the corrective action system. The inspectors also evaluated corrective actions for any degraded RCS components to determine whether they met the component Construction Code, ASME Section XI Code, and/or NRC approved alternative:

- Action Request (AR) 2013-2101; Boric Acid on 1-PA-141 and isolation valve has leak;
- AR 2013-1228; Refueling water purification pump casing has dry boric acid; and
- AR 2011-14969; Boric Acid leak on 12-SF-123N.

The inspectors reviewed the following corrective actions related to evidence of BA 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 2012-5150; Boric Acid build-up on 12-QLA-420;
- AR 2012-11187; Boric Acid leak on 12-SF-123;
- AR 2013-0290; 1-ICM-251 Packing leak; and
- AR 2013-0818; 12-CS-587 has a BA leak.

b. Findings

One finding was identified by NRC inspectors in Section 1R20.

.4 Steam Generator Tube Inspection Activities Electronic Power Research Institute

a. Inspection Scope

The NRC inspectors observed acquisition of eddy current (ET) data, interviewed ET data analysts, and reviewed documentation related to the steam generator (SG) ISI Program to determine whether:

- The numbers and sizes of SG tube flaws/degradation identified was consistent with the licensee's previous outage Operational Assessment predictions;
- The SG tube ET examination scope and expansion criteria were sufficient to meet the TSs, and the Electronic Power Research Institute Document 1013706, Pressurized Water Reactor Steam Generator Examination Guidelines;
- The SG tube ET examination scope included potential areas of tube degradation identified in prior outage SG tube inspections and/or as identified in NRC generic industry operating experience applicable to these SG tubes;
- The licensee-identified new tube degradation mechanisms and implemented adequate extent of condition inspection scope and repairs for the new tube degradation mechanism;
- The licensee implemented qualified depth sizing methods to degraded tubes accepted for continued service;
- The ET probes and equipment configurations used to acquire data from the SG tubes were qualified to detect the known/expected types of SG tube degradation in accordance with Appendix H, Performance Demonstration for Eddy Current Examination, of Electronic Power Research Institute Document 1013706, Pressurized Water Reactor Steam Generator Examination Guidelines;
- The licensee performed secondary side SG inspections for location and removal of foreign materials;
- The licensee implemented repairs for SG tubes damaged by foreign material; and
- Foreign objects were left within the secondary side of the SGs, and if so, that the licensee implemented evaluations, which included the effects of foreign object migration and/or tube fretting damage.

b. Findings

No findings were identified.

.5 Identification and Resolution of Problems

a. Inspection Scope

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

- The licensee had established an appropriate threshold for identifying ISI-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 Requalification Program (71111.11)

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

a. Inspection Scope

On June 6, 2013, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification 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.

b. Findings

No findings were identified.

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

a. Inspection Scope

Between May 17 and May 19, 2013, the inspectors observed plant heat up and startup of Unit 1. 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 correct use and implementation of procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions.

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.

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 system:

- Unit 1 distributed ignition 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 (SSCs)/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:

- Risk associated with planned maintenance on Unit 1 east and west essential service water systems, April 6-8, 2013;
- significant Unit 2 switchyard work, week of April 8, 2013;
- unplanned Limiting Condition for Operation (LCO) entry following restoration of Unit 1 101 CD reserve feed transfer (offsite power circuit) coupled with adverse weather, week of April 15, 2013;
- planned maintenance on Unit 1 'CD' EDG, week of May 27, 2013; and
- risk associated with battery cell replacement on Unit 1 AB battery week of June 24, 2013.

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 are listed in the Attachment to this report.

These maintenance risk assessments and emergent work control activities constituted five 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:

- Diesel generators due to degraded inlet air filter; and
- high oil level on Unit 2 turbine driven AFW pump.

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 two 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:

- Nitrogen backup to steam generator power-operated relief valves.

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. 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 permanent plant 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:

- Testing of MRV-212 following packing replacement;
- 1-SV-104E, Unit 1 east residual heat removal heat exchanger outlet safety valve testing following maintenance;
- Unit 1 auxiliary transformer testing following electrical maintenance;
- 101 CD Transformer cable replacement;
- Unit 1 AB EDG testing following preventative maintenance; and
- Unit 1 CEQ fan room divider barrier seal repairs.

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)

a. Inspection Scope

The inspectors reviewed the Outage Safety Plan (OSP) and contingency plans for the Unit 1 refueling outage (RFO), conducted March 27 through May 22, 2013, to confirm that the licensee had appropriately considered risk, industry experience, and previous site-specific problems in developing and implementing a plan that assured maintenance of defense-in-depth. During the RFO, the inspectors observed portions of the shutdown and cooldown processes and monitored licensee controls over the outage activities listed below:

- licensee configuration management, including maintenance of defense-in-depth commensurate with the OSP 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 OSP 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 and sipping to detect fuel assembly leakage;
- startup and ascension to full power operation, tracking of startup prerequisites, walkdown of the drywell (primary containment) to verify that debris had not been left which could block emergency core cooling system suction strainers, and reactor physics testing;
- licensee identification and resolution of problems related to RFO activities.

Documents reviewed during the inspection are listed in the Attachment to this report.

This inspection constituted one RFO sample as defined in IP 71111.20-05.

b. Findings

Introduction: The inspectors identified a finding of very low safety significance (Green) with an associated NCV of TS 5.4.1 for failure to implement procedures listed in Regulatory Guide 1.33. Specifically, the licensee's boric acid control program requires boric acid leakage conditions be identified and documented. However, licensee personnel failed to identify a boric acid deposit indicative of a through-wall leak on the RCS 'B' loop flow indicator instrument line.

Discussion: On May 17, 2013, while performing a containment walkdown at Normal Operating Pressure/Normal Operating Temperature, the inspectors noted a boric acid deposit on a 3/8" line. Based on the location, the inspectors concluded that the boric acid resulted from a through wall crack. As seen in Figure 1, the boric acid deposit occurred near a weld and there were no other plausible boric acid sources. The inspectors informed the licensee of the deposit and the licensee cleaned the boric acid. The licensee examined the area and performed a penetrant test to locate the precise location of leak. The test did not reveal a flaw; however, the licensee could not locate another source of the boric acid.

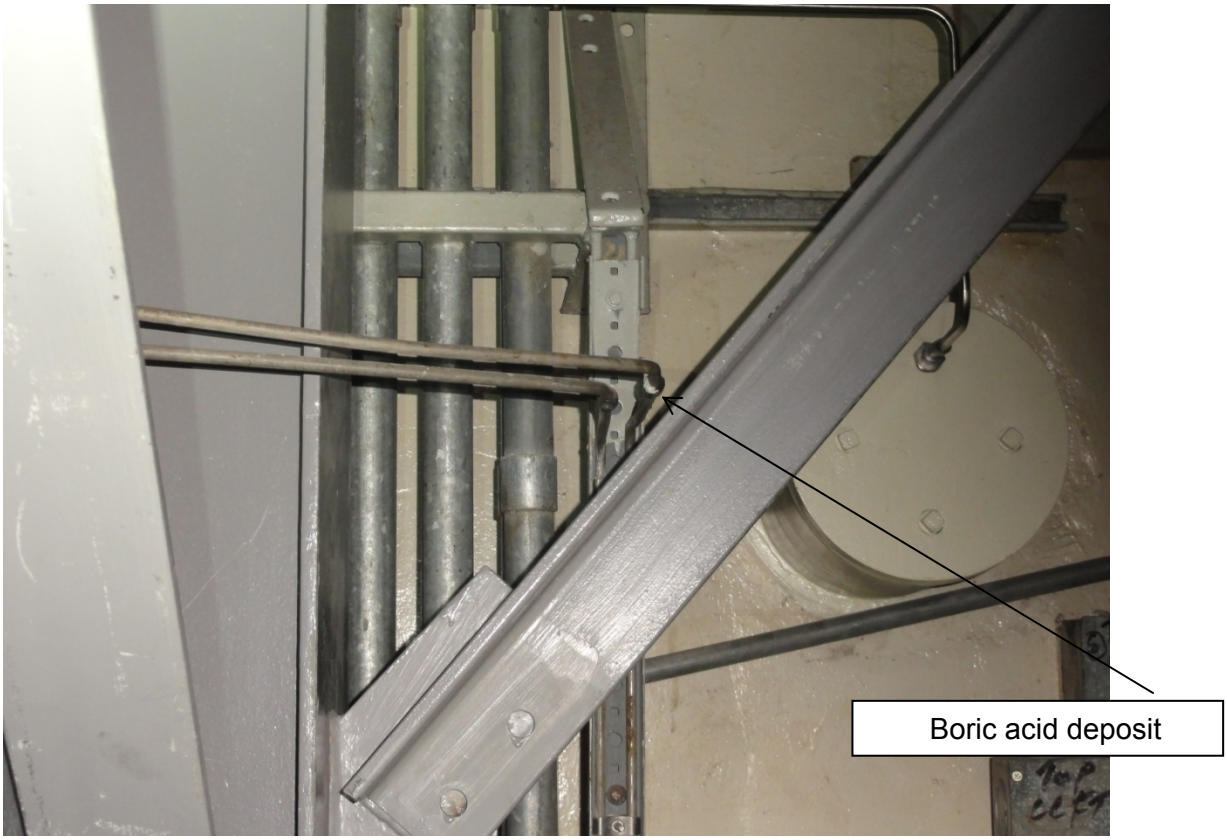

Figure 1

The licensee removed the section of pipe with the flaw and replaced it. However, the licensee did not retain the removed section of pipe. Based on the presence of the boric acid and lack of alternate boric acid sources, the inspectors concluded that a through wall flaw existed through that portion of the reactor coolant pressure boundary. The inspector reviewed the licensee's requirements for boric acid inspections. PLI-5032, Boric Acid Corrosion Control Programs, requires that Boric acid leakage conditions be identified and documented. However, the licensee failed to identify deposit during the refueling outage.

Analysis: The inspectors determined that the failure to identify the boric acid leakage as required by licensee procedures was a performance deficiency that warranted a significance determination. Using IMC 0612, Appendix B, Issue Screening, issued September 7, 2012, the inspectors determined that the finding did not include a willful aspect and that traditional enforcement did not apply. Following the Reactor Oversight Process path, the inspectors determined that a performance deficiency existed because the licensee could reasonably have detected the boric acid deposit. The inspectors determined the finding was more than minor because the performance deficiency adversely impacted the initiating events cornerstone objective of limiting the likelihood of events that upset plant stability in that the through-wall leak impacted the equipment performance attribute of barrier integrity. Specifically, the through-wall leak could further deteriorate and result in higher leakage.

The IMC 0609, Appendix G, issued February 28, 2005, states that for a refueling outage in a mode above the residual heat removal entry condition, to use the full power Significance Determination Process (SDP) tools. Therefore, Using IMC 0609, Appendix A, Significance Determination Process for Findings At-Power, issued June 19, 2012, the inspectors determined the finding was not of more than very low safety significance (Green) using Exhibit 1 of IMC 0609, Appendix A, because the finding could not reasonably result in exceeding the RCS leak rate for a small break LOCA; and could not have likely affected other systems used to mitigate a LOCA.

The finding includes a cross-cutting aspect of planning of work activities (H.3(a)) in the area of human performance. Specifically, the planning did not account for job site conditions, including systems, structures and components that may impact the ability to identify boric acid residue.

Enforcement: The TS Section 5.4.1 states, in part, that "written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978." The NRC Regulatory Guide 1.33, Appendix A, Section 8 addresses "Procedures for Control of Measuring and Test Equipment and for Surveillance Tests, Procedures and Calibrations." Section (b)(1)(t) lists inspection of Reactor Coolant Boundary as a recommended procedure. Procedure PMI-5032, Boric Acid Corrosion Control Program, Step 4.2, states, "periodic inspections shall be conducted for the entire RCPB. Boric Acid leakage conditions shall be identified and documented and boric acid corrosion concerns shall be promptly assessed and corrected as applicable."

Contrary to this requirement, between March 27 and May 17, 2013, the licensee failed to implement Step 4.2 of procedure PMI-5032. Specifically, the licensee failed to identify a boric acid deposit on RCPB piping between 1-NFP-220-V1 and loop flow instrument NFP-220. The boric acid occurred due to a through-wall leak near a weld. Because the licensee corrected the condition, there was no safety consequence.

For corrective action, the licensee replaced the 3/8" piping section mentioned above.

Because the finding was of very low safety significance and the licensee entered the finding into their CAP as AR 2013-7371, this violation is being treated as an NCV, consistent with Section 2.3.2 of the enforcement policy (**NCV 05000315/2013003-01, Failure to Identify Through-Wall Leak**).

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:

- Unit 1 LOOP/LOCA testing (inservice test);
- Unit 1 service water forebay inspection/cleaning (routine);
- Unit 1 pre-fueling surveillance (routine); and
- Unit 1 ice condenser flapper valve flow channel surveillance (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 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 USAR, 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 two routine surveillance testing samples, one inservice testing sample, and one containment isolation valve sample as defined in IP 71111.22, Sections - 02 and - 05.

b. Findings

No findings were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The Nuclear Security and Incident Response headquarters staff performed an in-office review of the latest revisions of various Emergency Plan Implementing Procedures and the Emergency Plan located under ADAMS Accession Numbers ML13077A438, ML13107B368, ML13107B350, ML13123A335, and ML13126A102, as listed in the Attachment to this report.

The licensee determined that in accordance with 10 CFR 50.54(q), the changes made in the revisions resulted in no reduction in the effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. The NRC review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection. The specific documents reviewed during this inspection are listed in the Attachment to this report.

This emergency action level and emergency plan changes inspection constituted one sample as defined in IP 71114.04-05.

b. Findings

No findings were identified.

2. 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 Radiological Hazard Assessment (02.02)

a. Inspection Scope

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

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

- Steam generator platform activities;
- 1-HE-13 eddy current testing; and
- U1C25 core barrel activities and lower radial support structure repairs.

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.

b. Findings

No findings were identified.

.2 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 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 used to access high radiation areas and evaluated the specified work control instructions or control barriers:

- RWP 13-1148 - steam generator platform activities;
- RWP 13-1173 - 1-HE-13 eddy current testing; and
- RWP 13-1105 - U1C25 core barrel activities and lower radial support structure repairs.

For these radiation work permits, the inspectors assessed whether allowable stay times or permissible dose (including from the intake of radioactive material) for radiologically significant work under each radiation work permit 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.

.3 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.

b. Findings

No findings were identified.

.4 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, radiation work permits, 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 examined the posting and physical controls for selected high radiation areas and very high radiation areas to verify conformance with the occupational performance indicator.

b. Findings

No findings were identified.

.5 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.

.6 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.

4. OTHER ACTIVITIES

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

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 followup, 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 Semiannual 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 inspector 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 2013 through June 2013, although some examples expanded beyond those dates where the scope of the trend warranted.

The review also included issues documented outside the normal CAP in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self-assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's CAP trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

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

b. Findings

No findings were identified.

.4 Selected Issue Followup: Scaffolding Identified in Contact with Safety-Related Equipment Apparent Cause Evaluation

a. Inspection Scope

The inspectors selected the following apparent cause evaluation for an in-depth review:

- AR 2013-3964, "NRC Resident Identified Scaffolding in Contact with 1W Component Cooling Water (CCW) Pump Expansion Joint"

The inspectors discussed the evaluation and associated corrective actions with licensee personnel and verified the following attributes while reviewing the apparent cause evaluation:

- complete and accurate problem identification in a timely manner commensurate with its safety significance and ease of discovery;
- extent of condition, generic implications, common cause and previous occurrences were considered;
- problem resolution was classified and prioritized commensurate with safety significance;
- apparent and contributing causes were identified; and
- appropriately focused corrective actions were identified.

b. Findings

Introduction: The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," because the licensee failed to properly install seismically qualified scaffolds adjacent to safety-related equipment as required by site procedures . Specifically, the inspectors identified several scaffolds installed in the plant that were in contact with safety-related equipment contrary to the procedure.

Description: On March 19, 2013, while performing a routine tour of the auxiliary building, the inspectors identified a seismic scaffold in contact with the Unit 1 west CCW system in several locations. The inspectors communicated their observation to the licensee and the licensee entered the issue into the CAP as AR 2013-3924. This observation prompted the licensee to perform site wide scaffolding walk downs that evening. The following day, the inspectors identified additional sections of CCW piping near two letdown heat exchanger valves that were in contact with seismically qualified scaffolding. The inspectors also identified a scaffold plank in contact with the Unit 1 west containment spray heat exchanger. Additional walkdowns performed by the licensee identified seismically qualified scaffolding in contact with the Unit 1 startup blow down flash tank (nonsafety-related), feedwater piping in Unit 1 east main steam area (east of 1-FRV-210, nonsafety-related) and the Unit 1 auxiliary building engineered safety fan housing and Unit 1 west CCW pump suction strainer (safety-related). Based on all the above instances of scaffold erections contacting multiple plant systems in several locations, the licensee generated a total of eight ARs and performed an apparent cause

evaluation. Based on the number of instance of improperly constructed scaffold, the inspectors concluded that a programmatic breakdown in scaffold construction existed.

While reviewing this issue, the inspectors interviewed maintenance and operation management and reviewed the associated apparent cause evaluation. The inspectors noted that that the scaffolds discussed above had been erected by contracted offsite vendors in preparation for the Unit 1 2013 spring refueling outage. Further, both contractor oversight and operations personnel had failed to identify the above instances of scaffolding contacting plant equipment during post-build reviews or routine tours of the facility. The inspectors noted that 12-MHP-5021-SCF-001, Scaffolding Guidelines procedure Step 4.2.1.f states, "Scaffolding material SHALL NOT be in contact with cable trays, conduit, piping or insulation unless approved by an Operations Department Senior Reactor Operator." Consequently, the inspectors determined that the vendors who erected the scaffolding and operations personnel who had reviewed the erected scaffolding failed on numerous occasions to ensure scaffolding was not in contact with safety-related equipment as required by Step 4.2.1.f. The inspectors also noted that a Senior Reactor Operator did not approve the above instances of erected scaffold found in contact with plant equipment as required by the Scaffolding Guidelines procedure. Based on additional discussions with maintenance and operations supervisors and station management, the inspectors determined that management oversight had not provided adequate supervision to ensure the vendors had properly installed scaffolding in accordance with procedure.

Analysis: The inspectors determined that failure to properly implement the scaffolding procedure was a licensee performance deficiency that warranted an evaluation in accordance with the SDP. The inspectors reviewed the issue of concern in accordance with IMC 0612, Appendix B, Issue Screening, issued September 7, 2012. Since the issue of concern does not include any willful aspects, the inspectors evaluated the issue using only the reactor oversight process. The inspectors concluded that this performance deficiency was considered more than minor because it affected the protection against external factors attribute of the Mitigating Systems cornerstone and its objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, several scaffolds were erected in contact with safety-related equipment which could challenge the availability, reliability and capability of safety-related systems affected during a seismic event. In accordance with IMC 0609, Appendix A, SDP for Findings At-Power, Exhibit 2, Mitigating Systems Screening Questions, issued June 19, 2012, the finding screened as Green because it did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic event.

The inspectors concluded that this finding was associated with a cross-cutting aspect in the work practice component of the human performance cross-cutting area. Specifically, contractor oversight and operations supervision did not provide effective oversight to prevent scaffold contact with safety-related equipment (H.4 (c)).

Enforcement: 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be prescribed by documented procedures of a type appropriate to the circumstances and be accomplished in accordance with these procedures. The licensee established 12-MHP-5021-SCF-001, Scaffold Guidelines, Revision 15, as the implementing procedure for scaffolding erections affecting quality. 12-MHP-5021-SCF-001, Scaffolding Guidelines procedure

Step 4.2.1.f states, “Scaffolding material SHALL NOT be in contact with cable trays, conduit, piping or insulation unless approved by an Operations Department Senior Reactor Operator.”

Contrary to the above, prior to March 20, 2013, the licensee failed to accomplish scaffold erection in accordance with procedure 12-MHP-5021-SCF-001, Scaffold Guidelines. Specifically, licensee personnel failed to ensure scaffolding erected adjacent to safety-related equipment met seismic requirements in that the licensee erected the scaffold in contact with safety-related equipment. Scaffolding was in contact with plant equipment and had not been approved by site licensed senior reactor operator. In response to the inspector observations, the licensee adjusted all identified instances in a timely manner to restore compliance with the Scaffolding Guidelines procedure. For corrective actions, the licensee completed a walk down of all erected scaffolds installed on site, briefed scaffold crews on equipment clearance requirements and are revising the Scaffolding Guidelines procedure to include increased supervisory oversight and separation gap requirements.

Because the finding was of very low safety significance and the licensee entered the finding into their CAP as AR 2013-3964, this violation is being treated as an NCV, consistent with Section 2.3.2 of the enforcement policy **(NCV 05000315/2013003-02, Failure to Implement the Scaffold Guidelines Procedure)**.

4OA3 Followup of Events and Notices of Enforcement Discretion (71153)

.1 Unit 1 101-CD Reserve Auxiliary Transformer Trip Resulting in Loss of Unit 2 201-CD Reserve Auxiliary Transformer

a. Inspection Scope

The inspectors reviewed the control room operator response to the loss of the Unit 1 and Unit 2 4KV CD reserve auxiliary transformers (RAT) on April 24, 2013. This event was initiated by a ground fault that occurred on a cable from the Unit 1 RAT which resulted in the common upstream 12 AB circuit breaker opening on fault protection circuitry interlock and the subsequent loss of the Unit 2 RAT. For Unit 1, the train A 4KV safety-related buses de-energized causing the CD emergency diesel generator to auto start and re-energize the buses. For Unit 2, no safety-related buses were lost. In response, operators isolated the Unit 1 CD RAT, re-energized the 12 AB circuit breaker and restored the Unit 2 CD RAT to service. The inspectors walked down control panels to verify that plant equipment responded as designed and verified that control room operators responded in accordance with plant procedures. This issue has been entered into the CAP as AR 2013-6194.

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

b. Findings

No findings were identified.

.2 Unit 1 Digital Control System Rapidly Raised Thermal Power Requiring Operators to Manually Trip Main Turbine

a. Inspection Scope

The inspectors observed the control room operators respond to a rapid power increase that occurred while paralleling Unit 1's main generator to the grid May 19, 2013. Specifically, upon synchronization, the Unit 1 main electrical generator attempted to pick up load in excess of current steam dump settings. This was a much greater load increase than expected, causing steam dump valves to close completely and reactor coolant system temperature to lower. This resulted in a reactivity transient involving reductions in RCS temperature and pressure. Control room operators responded by manually reducing turbine load and withdrawing control rods to raise temperature and stabilize reactor power. The inspectors walked down control panels to verify that plant equipment responded as designed and verified that control room operators responded in accordance with plant procedures. This issue has been entered into the CAP as AR 2013-7472.

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

b. Findings

No findings were identified.

.3 (Discussed) Licensee Event Report 05000315/2012-002-00: Unit 1 Exceeded Technical Specification Allowed Outage Time

On July 19, 2012, at 7:34 a.m. Eastern Daylight Time (EDT), the fuses for two Unit 1 steam generator stop valves (specifically the associated dump valves) blew. Without power, the valves would not open to cause a closure of the associated steam generator stop valves. The failure affected the train B portion; train A remained operable. The blown fuses rendered one train of Engineered Safety Features Actuation System inoperable and the licensee entered LCO 3.3.2 Condition C which requires restoration to operable within 6 hours. If the completion time cannot be met, LCO 3.3.2 Condition I required the licensee to enter Mode 3 within 6 hours and Mode 4 within 12 hours. Since the licensee could not complete repairs within 6 hours, the licensee began a downpower and requested that the NRC exercise discretion and extend the required action time to 30 hours to enter Mode 3, and 36 hours to enter Mode 4. The licensee verbally requested the discretion via telephone and the NRC granted discretion, effective at 7:34 p.m. EDT (Notice of Enforcement Discretion (NOED) 12-3-002, ML12207A516). During the telephone call, the licensee informed the NRC that repairs would be completed within 24 hours and the risk associated with discretion was low. The licensee also proposed a number of compensatory measures to mitigate the risk associated with operating during the period of discretion. The licensee completed repairs and exited the limiting condition for operation at 8:30 p.m. EDT the same day. The inspectors documented their response to the event and NOED in NRC Inspection Report 05000315; 05000316/2012004.

The licensee concluded, based on troubleshooting results that a fault existed in the splice for solenoid valve 1-MRV-222. The fault caused the fuse to blow for 1-MRV-222 and induced current in the adjacent line for valve 221. The licensee investigated the

fault and deduced that the splice from the power cable to the solenoid had a fault. The license cut out the splice, replaced the associated solenoid valve and installed a new splice. Following the post-maintenance test, the licensee declared the system operable and exited the LCO.

Although the licensee retained the splice, the removal process precluded analysis of the failure mechanism of the splice. The inspectors reviewed the Apparent Cause Evaluation the licensee performed. Because analysis of the splice did not reveal a failure mechanism, the Apparent Cause Evaluation did not identify any organizational weakness that led to the failure. The licensee had replaced the solenoid in May 2002. Because the splice had operated acceptably since 2002 and the analysis did not reveal a cause, the inspectors did not identify a performance deficiency associated with the failed splice.

During the event, the licensee initially entered LCO 3.0.3. Subsequently, the licensee concluded that LCO 3.3.2 applied in lieu of LCO 3.0.3. However, the LCOs the licensee recognized and entered bounded LCOs 3.3.2. Therefore, at all times the licensee completed required actions within the TS-allowed times or were not required to because of the enforcement discretion. The licensee retracted the Licensee Event Report (LER) on July 25, 2013. Therefore, the inspectors intend to keep the LER open pending review of the licensee's retraction.

The inspectors did not identify any issues of safety significance in the LER. This event followup does not constitute a sample as defined in IP 71153-05.

.4 (Closed) Unresolved Item 05000315/2012004-02: Followup Inspection of Actions from Notice of Enforcement Discretion

In NRC Inspection Report 05000315; 05000316/2012004, the inspectors opened Unresolved Item (URI) 05000315/2012004-02 to track assessment of the causal evaluation and followup actions associated with NOED12-3-002. As discussed in the previous paragraph, the licensee requested, and the NRC granted, an NOED, to allow the licensee additional time to complete repairs to Steam Generator Stop Valve dump valve MRV-222. The NRC Inspection Report 0500315; 05000316/2012004, documents the inspectors verification of compensatory actions. The licensee completed their cause analysis and the inspectors have reviewed the cause analysis. The licensee's cause analysis determined that a degraded splice caused the inoperability of the Steam Generator Stop Valve, but the licensee could not determine why the splice degraded. During the time the NOED was in effect, the licensee replaced the solenoid and remade the implicated splice. Since the repair, there have been no indications of grounds on the control power for MRV-222; therefore, the inspectors concluded the corrective actions taken by the licensee were reasonable to correct the condition that led to the NOED.

Based on the inspectors' review of the NOED and the cause evaluation, the inspectors determined that the failed splice was not reasonably within the licensee's ability to foresee and prevent; therefore, no performance deficiency existed. The inspectors concluded no addition enforcement action is warranted. This URI is closed.

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

4OA6 Management Meetings

.1 Exit Meeting Summary

On July 23, 2013, 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 inspection results for the area of radiological hazard assessment and exposure controls with Mr. J. Gebbie, Site Vice President, on April 12, 2013 and again with Mr. C. Wohlgamuth, Regulatory Affairs Supervisor, on May 9, 2013.
- The results of the inservice inspection were discussed with Site Vice President, Mr. J. Gebbie on April 12, 2013.

The inspectors confirmed that none of the potential report input discussed was considered proprietary.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

J. Beer, Staff Health Physicist
D. Bronicki, Radiation protection General Supervisor
J. Gebbie, Site Vice President
R. Hall, ISI Program Owner
B. Hite, Director, Radiation Protection, Chemistry, and Environmental
S. Mitchell, Regulatory Affairs
J. Ross, Engineering Director

Nuclear Regulatory Commission
S. Shah, Reactor Engineer
N. Valos, Senior Risk Analyst
T. Wengert, Project Manager

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

05000315/2013003-01	NCV	Failure to Identify Through-Wall Leak (1R20)
05000315/2013003-02	NCV	Failure to Implement the Scaffold Guidelines Procedure (4OA2)

Closed

05000315/2013003-01	NCV	Failure to Identify Through Wall Leak (1R20)
05000315/2013003-02	NCV	Failure to Implement the Scaffold Guidelines Procedure (4OA2)
050003152012-004-2	URI	Followup Inspection of Actions from Notice of Enforcement Discretion (4OA3)

Discussed

05000315/2012-002-00	LER	Unit 1 Exceeded Technical Specification Allowed Outage Time (4OA3)

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

- 12-IHP-5040-EMP-004, Plant Winterization and De-Winterization, May 29, 2013
- AR 2013-5431, 12-HV-SHD-7 Heater Needs New Thermostat
- AR 2013-5900, Damaged Sheet Metal Box on 12-TK-295S Fire Protection Tank
- AR 2013-6568, Discrepancies Discovered During De-Winterization
- AR 2013-7111, 1-HV-MSE-D7 Winterization Door Opens and Closes Hard
- Bobby Norrick to Sam Partin, Seasonal Readiness Affirmation, May 24, 2013
- PMP-3100-IOA-001, Inter-Organizational Agreement Between the AEP Transmission and the AEP Nuclear Generation Group for Assistance to Cook Nuclear Plant, Revision 007
- PMP-5055-001-001, Winterization/Summerization, May 6, 2013

1R04 Equipment Alignment

- 1-OHP-4021-032-008AB, Operating DG1AB Subsystems, Revision 19
- 2-OHP-4021-008-002, Placing Emergency Core Cooling System in Standby Readiness, Revision 026
- AR 2011-13387, #2 PORV Control Air Leak
- AR 2012-9529, 2-HV-ACE-S1 Did not Run
- AR 2013-2787, Pipe Hanger for 2-CPI-410-VI Broken
- AR 2013-7580, Control Fluid Leak at 1-OME-84-HPSVE
- AR 2013-8350, Unit 1 E EWS Pump Motor Oil Sightglass Difficult to See
- AR 2013-8547, High Unit 1 Feedwater Iron Result from Weekly Sample
- GT 2010-6177, Information Notice 2010-11
- Technical Data Book, 1-Figure 19.9, Diesel Generator Pot Settings, Revision 35

1R05 Fire Protection

- AR 2012-15963, Outboard Pump Shaft Seal Electric Fire Pump Excessive Leak
- AR 2013-5530, Ice condenser AHU 1-3A Smoking and Arcing
- AR 2013-5547, Fire response U-1 Containment Upper Ice
- Fire Hazards Analysis, Revision 15
- Fire Pre Plan, Revision 13

1R07 Heat Sink Performance

- 12-EHP-8913-001-002, Unit 1 East Component Cool Water Heat Exchanger, April 16, 2013
- AR 2013-5473, NRC Inspector Observation for Heat Exchanger Inspections
- AR 2013-5763, 1-HE-15 EAST Channel Head Divider Plate Degradation

1R08 Inservice Inspection Activities

- 12-EHP-4030-102-001, Steam Generator Primary Side Surveillance, Revision 9
- 12-EHP-5037-SGP-007, Steam Generator Management Program – Steam Generator Inspection Requirements, Revision 8
- 12-QHP-5050-NDE-002, Magnetic Particle Examination, Revision 6
- 54-ISI-24-034, Written Practice for Personnel Qualification in Eddy Current Examination, August 28, 2012
- AR 2011-11572, Wrong ASME XI Code Table Referenced in ISI Evaluation
- AR 2011-14969, Boric Acid Leak on 12-SF-123N
- AR 2012-11187, Boric Acid Leak on 12-SF-123N
- AR 2012-5150, Boric Acid Build-up on 12-QLA-420
- AR 2013-0290, 1-ICM-251 Packing Leak
- AR 2013-0818, 12-CS-587 Has BA leak
- AR 2013-1228, Refueling Water Purification Pump Casing Has Dry Boric Acid
- AR 2013-1548, 12-PW-116 Leaking Possibly at Weld
- AR 2013-2101, Boric Acid on 1-IPA-141 and Isolation Valve Has Leak By
- AR 2013-3510, 1-NRV-200 Has an Active Packing Leakage
- AR 2013-4927, U1 Containment, Various Inactive Boric Acid Leaks
- CR 2013-2854, Created DCN For Tube Sheet Maps, April 8, 2012
- DCN 121-9203510, Document Change Notice, April 8, 2013
- EC 52738, Engineering Change, April 4, 2013
- ETSS 10908.4, Eddy Current Examination Technique Specification Sheet, Revision 1
- ETSS 21998.1, Eddy Current Examination Technique Specification Sheet, Revision 4
- LMT-04-UT-113, Ultrasonic Examination of Nozzle Inner radius Areas, Revision 2
- PDi-UT-11, Generic Procedure for the Detection and Sizing of Reactor Pressure Vessel Nozzle to Shell Welds and Nozzle Inner Radius, Revision B
- PDI-UT-2, Generic Procedure for the Ultrasonic Examination of Austenitic Pipe Welds, Revision F
- PDI-UT-5, Generic Procedure for Straight Beam Ultrasonic Examination of Bolts and Studs, Revision D
- PMP-5030-001-001, Boric Acid Corrosion of Ferritic Steel Components and Materials, Revision 15
- PQR 136, Procedure Qualification Record, Revision 1
- PQR 256, Procedure Qualification Record, Revision 1
- PQR 258, Procedure Qualification Record, Revision 1
- U1C19-001, Examination Summary, November 1, 2003
- U1-PT-11-006, Liquid Penetrant Examination, October 19, 2011
- U1-PT-11-008, Surface Evaluation, October 6, 2011
- U1-VE-13-001, Ultrasonic Examination, April 6, 2013
- U1-VE-13-006, Ultrasonic Examination, April 6, 2013
- U1-VE-13-011, Ultrasonic Examination Pump Bolts 1 through 24, April 5, 2013
- U1-VE-13-020, Ultrasonic Examination, April 10, 2013
- U1-VE-13-021, Ultrasonic Examination, April 10, 2013
- U1-VE-13-022, Ultrasonic Examination, April 10, 2013
- U1-VE-13-028, Ultrasonic examination, April 5, 2013
- U1-VT-13-027, Visual Examination of Pressure Retaining Bolting, April 8, 2013
- U1-VT-13-028, Visual Examination of Pressure Retaining Bolting, April 8, 2013

- UT-95, Ultrasonic Examination of Austenitic Piping Welds, Revision 7
- UT-97, Straight Beam Ultrasonic Examination of Bolts and Studs, Revision 4
- VT-06-076, Visual Examination of Reactor Vessel and Internals (VT-3), October 23, 2006
- WO 55315870, Steam Generator Primary Side Surveillance, July 26, 2011
- WO 55364074, Perform SIS Exams on Safety Injection, September 20, 2011
- WO 55373722-01, 1-QRV-114, Replace Valve, February 18, 2011
- WO 55380711-28, 1-IMO-315 supplemental WO for new DE, September 22, 2011
- WO 55392571-01, Remove/Re-weld rejected welds, during U1C24, April 8, 2013
- WO 5539418-07, #14 Steam Generator primary Side Surveillance, April 2, 2013
- WO 55394809-07, U1 Steam Generator Primary Side Surveillance, April 2, 2013
- WO 55395567-01, EISI Vendor Examination on RCS Welds in U1, September 7, 2012
- WO 55395570,NQQS Perform Examinations on RPV, March 145, 2013
- WPS 8.12T, Welding Procedure Specification, Revision 1

1R11 Licensed Operator Requalification Program

- RQ-E-3802-U2-A, Simulator exercise Guide, Revision 0

1R12 Maintenance Effectiveness

- (DIS) Distributed Ignition System – Hydrogen Ignition, April 20, 2010
- 1-IHP-4030-134-001, Unit 1 DIS Surveillance and Baseline Testing, Revision 18
- 1-IHP-4030-134-001, Unit 1 DIS Surveillance and Baseline Testing, May 12, 2013
- AR 2010-2510, Unit 1 DIS Glow Plug Failure: 1-UDISB-B6
- AR 2012-12442, 1-88X-UDISA Phase 2 Low Current
- AR 2013-7024, Igniter Failed to Light on 1-UDISA-A4
- AR 2013-7082, Failed Igniters on Train A DIS Upper Containment
- AR 2013-7086, Failed Igniters on Train B DIS Upper Containment
- AR 2013-7114, Partially Completed Surveillance on Unit 1 DIS
- AR 2013-7311, DIS Surveillance Failed in Unit 2
- DB-12-CNTS Containment Systems, Design Basis Document for the Containment Systems, Revision 6
- Maintenance Rule Scoping, Hydrogen Igniter System, April 11, 2002
- OP-1-98264-9, Hydrogen Mitigation Distributed Ignition System Elementary Diagram, September 1, 2010
- System Health Report (Q3-2011), November 11, 2011
- WO 55297922-05, Replace Unit 1, Train B, Upper Containment Igniter Glow Plug, April 1, 2010
- WO 55297924-01, Replace Unit 1, Train B, Lower Containment Igniter Glow Plug, March 18, 2010
- WO 55297925-01, Replace Unit 1, Train A, Upper Containment Igniter Glow Plug, March 30, 2010
- WO 55365593-01, Perform 24 Month DIS Surveillance & Baseline Test, October 16, 2011
- WO 55383712-01, Perform DIS Surveillance Unit 2, October 14, 2011
- WO 55399847 01, Unit 1 DIS Surveillance, May 12, 2013
- WO 55399847-04, Replace Unit 1 Train ‘A’ Upper Containment Glow Plug A12, May 1, 2013
- WO 55399847-05, Replace Burnt Out Unit 1 Train’A’ Upper Containment Glow Plugs, May 8, 2013
- WO 55399847-07, Replace Burnt Out Unit 1 Train’A’ Upper Containment Glow Plugs, May 10, 2013

- WO 55423813-01, DIS System, Perform Troubleshooter for Train 'A' DIS in Upper Containment of Unit 1, May 12, 2013
- WO 55423814-02, 1-UDISB-B1, Replace All Train 'B' Igniters, May 13, 2013

1R13 Maintenance Risk Assessments and Emergent Work Control

- AR 2013-5704, CB 12CD Tripped open when attempting to restore 1-TR101CD
- Control room logs, May 27 – 30, 2013
- Daily work list for May 27 – 30, 2013
- IPTE Briefing Guide for Dual ESW Bay Cleaning, April 6, 2013
- IPTE Briefing Guide for Switchyard Work U1C25, March 18, 2013
- PMP-2291-OLR-001, Online Risk Management, Revision 25
- Safety Function Determination Worksheet, West Essential Service Water, April 6, 2013
- Unit 1 and Unit 2 Part 1 Configuration Risk Assessment (for Mode 1), May 27 – 30, 2013

1R15 Operability Determinations and Functionality Assessments

- 12-EHP-4030-002-356, Low Power Physics Tests with Dynamic Rod Worth Measurement, May 18 2013
- 12-EHP-5030-OIL-001, Oil Analysis Program, Revision 8
- 12-OHP-5030-001-001, Operations Plant Tours, Revision 9
- AR 2012-7207, High Oil level on U2 TDAFW Turbine Governor
- AR 2012-8984, U2 TDAFW Turbine Governor Oil Level High
- AR-2013-3056, Aux Feedwater Analysis Needed for ESW
- AREVA Report 51-9031409-000, Tube Erosion Evaluation for Water Lancing Process at 3000psig

1R18 Plant Modifications

- 2013-0013-00, 50.59 Screen for EC-0000052530, Revision 0
- EC 0000052530, Steam Generator PORV EPT 20# N2 Supply, Revision 0

1R19 Post-Maintenance Testing

- 12-MHP-4030-001-001, IST Safety Valve Bench Testing, April 12, 2013
- 1-EHP-4030-195-249, Containment Divider Barrier Seal Surveillance, April 19, 2013
- 1-Figure 19.9, Revision 35, Diesel Generator Pot Settings, April 12, 2013
- 1-OHP-4030-132-027 AB, AB Diesel Generator Operability Test (Train B) April 13, 2013
- 2-OHP-4030-251-018, Steam Generator Stop Valve Dump Valve Surveillance Test, April 25, 2013
- Accusplit Stopwatch ver, Revision 1
- AR 2010-7607, Divider Barrier Refurbishment on Ice Condenser Bay 1
- AR 2013-5626, End Spacing Issue on CEQ #1 Wall Divider Barrier Seal
- AR 2013-5747, Governor Cooling Line Leaking Approx 15DPM At Full Load
- AR 2013-5749, Mechanical Seal Leaking on Transfer Pump
- AR 2013-5820, 1-SV-104E failed as found test criteria
- AR 2013-6022, Testing Technique Improper
- AR-2013-6194, Transformer 101CD Reserve Feed tripped due to a Fault,
- Figure 2-19.1, Power Operated Valve Stroke Time Limits, April 15, 2013
- GT 2013-6389, Replacement of 4KV Cable Spacers, April 28, 2013
- Initial Energization Unit 1 Auxiliary Transformers 1-TR1AB and 1-TR1CD, May 2, 2013

- PMI-7030, Corrective Action Program, Revision 40
- PMP-7030-MOP-001, Corrective Action Program Management Oversight, Revision 15
- WO 55367874-04, ESY, Post-Maintenance Testing Per 1-EHP-4030-195-249, April 19, 2013
- WO 55381347-03, OPS: 1-OME-150-AB, Perform Fast Start PMT/Surveillance Runs, April 13, 2013
- WO 55381347-04, MTI: Adjust Air Pressures as Necessary and PMT, April 12, 2013
- WO 55382536-07, MTI, PMT 1-62-1-DGAB when rolled by air (prior to run), April 13, 2013
- WO 55384068-01, MTRM, 2-QT-404, Remove Guards and Clean Fins, June 14, 2013
- WO 55392536-05, MTI, 1-62-1-LBQA-DGAB, Calibrate/PMT Time Delay Relay, March 31, 2013
- WO 55392536-06, OPS: 1-OME-150-AB, Support Post-Maintenance Testing, April 12, 2013
- WO 55398139-01, 2-HE-23, Replace Tube Bundle for PAC Aftercooler, June 18, 2013
- WO 55398139-02, MTM, 2-HE-23, Perform Leak Inspection (PMT), June 18, 2013
- WO 55421891, 2-MRV-LCO Work Package, April 25, 2013
- WO 55422877, 1-TR101CD replace Degraded Cables, April 26, 2013
- WO 55422877-10, 1-TR101CD, Replace Degraded Cables, April 28, 2013

1R20 Refueling and other Outage Activities

- 12-IHP-5021-EMP-062, ½-QM-4, Polar Crane Periodic Inspection and Maintenance, March 14, 2013
- 12-OHP-4050-FHP-010, Refueling Tool and Equipment Checkouts, March 14, 2013
- 12-OHP-4050-FHP-023, reactor Vessel Head removal with Fuel in the Vessel, Revision 9
- 1-OHP-4021-001-001, Plant Heatup from Cold Shutdown to Hot Standby, Revision 63
- 1-OHP-4021-001-002, Reactor Startup, Revision 49
- 1-OHP-4021-001-006, Power Escalation, Revision 64
- 1-OHP-4021-082-001, 4kV Buses Power Source Transfer and De-energizing and Re-energizing a Safeguards Bus, May 4, 2013
- 1-OHP-4030-001-002, Containment Inspection Tours, Revision 33
- 1-OHP-4030-127-037, Refueling Surveillance, March 31, 2013
- AR 2013-1149, PMP-2060-WHL-001 Waivers Not Completed
- AR 2013-4259-Failure of Unit 1 650' Airlock Surveillance
- AR 2013-4288, U1 612 Containment Airlock outer door seal leakage >500sccm
- AR 2013-4327, Door Seal Breech, March 27, 2013
- AR 2013-4770, Minor Physical Conditions Discovered During Visual Inspect
- AR 2013-5142, U1C25 Recirc Sump Walkdown #4
- AR 2013-5332, UAT Work Schedule Impact by False FFD Report
- AR 2013-5755, Broken Welds
- AR 2013-5943, Cavitation Found Downstream 1-WMO-733
- Clearance Tag List, Group 1-U1C25, Clearance R-PW –RCSI-0852(002), May 3, 2013
- GT 2013-8560, RCS Vacuum Fill Procedure Enhancements
- GT 2013-8563, Procedure Enhancement for RCS Draining
- IPTE Briefing Guide for RCS Vacuum Fill, March 7, 2013
- PMP-2060-FFD-002, Performace of Fatigue Assessments, Revision 003
- R-CCW –CCWW-0985, West Component Cooling Water Heat Exchanger, April 10, 2013
- Refueling Operations IPTE Brief, February 21, 2013
- WO 55269313-02, 1-OME-25, Inspect/lubricate Reactor Head Lift Rig, March 13, 2013
- WO 55423252-01, MTI, 1-NRI-34-DWR, Check and Replace Drawer as Needed, May 3, 2013
- WO 55423252-02, (PH) MTI, 1-NRI-34-DWR, Remove Failed Drawer, May 3, 2013
- WO 55423252-CC, Unit 1 Audio Count Rate is Not Working, May 3, 2013

1EP4 Emergency Action Level and Emergency Plan Changes

- Emergency Plan, Revision 32

1R22 Surveillance Testing

- 12-MHP-4030-010-006, Ice Condenser Floor Drains and Flapper Valves Surveillance, April 25, 2013
- 1-OHP-4030-127-037, Refueling Surveillance, May 2, 2013
- 1-OHP-4030-132-217B, DG1AB Load Sequencing & ESF Testing, Revision 30
- 2013-6463, ESW Discharge Strainer Basket Backwash Valve Testing, April 30, 2013
- AR 2013-4469, PPC Data Collection Did Not Initiate From SI Switch
- AR 2013-6216, Unit 2 Control Back Door Failed NRC Weekly Function
- AR 2013-8494, Revise SK-C-IC01, Ice Condenser Familiarization
- U1C25, Diving Activities Per WO 55395423, Diving in the Screenhouse, CW Condenser Inlet Tunnel and ESW Pump Bay

2RS1 Radiological Hazard Assessment and Exposure Controls

- 12-THP-6010-RPP-006, Radiation Work Permit (RWP) Processing, Revision 031
- 12-THP-6010-RPP-014, Total Effective Dose Equivalent (TEDE) Evaluation, Revision 009
- 12-THP-6010-RPP-104, Personnel Dosimetry Use in Varying Radiation Fields, Revision 012
- 12-THP-6010-RPP-400, Radiological Protection Job Coverage, Revision 015
- 12-THP-6010-RPP-401, Performance of Radiation and Contamination Surveys, Revision 034
- 12-THP-6010-RPP-405, Analysis of Airborne Radioactivity, Revision 016
- 12-THP-6010-RPP-406, DAC-Hour Tracking, Revision 9
- 12-THP-6010-RPP-421, Radiological Controls for Steam Generator Maintenance
- 12-THP-6010-RPP-701, Response to Dosimeter Use Problems, Revision 13
- AR 2013-5234, RWP ED Dose Alarm
- AR 2013-5337, Incorrect Information on a Survey Signed as Approved
- AR 2013-5448, U1C25 S/G Potential Deficiency in Dosimetry Placement
- AR 2013-5450, Dose and Dose Rate Alarm Set Points Potentially Too High
- PMP-6010-RPP-001, General Radiation Worker Instruction, Revision 018
- Radiation Work Permit and Associated ALARA File, RWP 13-1105, U1C25 Core Barrel Activities & Lower Radial Support Structure Repairs
- Radiation Work Permit and Associated ALARA File, RWP 13-1148, Steam Generator Platform Activities
- Radiation Work Permit and Associated ALARA File, RWP 13-1173, 1-HE-13 Eddy Current Testing
- Radiological Survey, CNP-1303-0300, March 27, 2013
- Radiological Survey, CNP-1304-0210, April 5, 2013
- Radiological Survey, CNP-1304-0210, April 5, 2013, Revised
- Radiological Survey, CNP-1304-0213, April 5, 2013
- Radiological Survey, CNP-1304-0213, April 5, 2013, Revised
- Radiological Survey, CNP-1304-0215, April 5, 2013
- Radiological Survey, CNP-1304-0215, April 5, 2013, Revised
- Radiological Survey, CNP-1304-0219, April 5, 2013
- Radiological Survey, CNP-1304-0219, April 5, 2013, Revised
- Radiological Survey, CNP-1304-0260, April 7, 2013
- Radiological Survey, CNP-1304-0286, April 8, 2013
- U1C25 Steam Generator Dosimetry Evaluation, April 4, 2013

4OA2 Problem Identification and Resolution

- 12-MHP-5021-SCF-001, Scaffolding Guidelines, Revision 015
- AR 2011-14169, Engineering Evaluation of EWS Semi-Permanent Scaffold Interference
- AR 2012-14707, Engineering Commercial Control Process Weakness
- AR 2012-5125, Scaffold Pole Found To Be Touching Conduit
- AR 2012-6216, 2012-5125 Did Not Document Past Operability
- AR 2012-6579, Scaffold in Contact with 2W-ESW Pump Motor Junction Box
- AR 2013-3563, Malware Detected on CDA
- AR 2013-3964, NRC Resident Identified Scaffolding in Contact with 1W CCW Pump Expansion Joint
- AR 2013-5535, Scaffold Standards
- AR 2013-6132, TSI workstation not identified as Critical Digital Asset
- AR 2013-6191, Potential Malware Infection on Unit 1 TSI Workstation
- AR 2013-6337, Malware found on TSI Vibration Setpoint PC
- AR 2013-6426, Employee not transitioned to covered status
- GT 2013-5532, Unapproved Scaffold Modification
- Memorandum, Eisenhut to Morris, DC Cook Nuclear Safety Review Board Meeting February 21 and 22, 2013, April 2, 2013
- Memorandum, Eisenhut to Morris, DC Cook Nuclear Safety Review Board Meeting November 29 and 30, 2012, December 26, 2012
- PA-SR-13-002, Performance Assurance radiation Protection Surveillance, March 19, 2013
- Performance Assurance Semi-Monthly Roll-Up Report, June 3, 2013
- PMP-3140-CON-003, Oversight of Contractors, Revision 017
- Program Health Report, Cable Aging and Monitoring Program, 4th Quarter 2012 and 1st Quarter 2013
- Program Health Report, Service water Cooling reliability, 1st Quarter 2013

4OA3 Followup of Events and Notices of Enforcement Discretion

- 12-IHP6030.IMP.047, Instrumentation Lead Splicing, Revision 4
- AEP-NRC-2012-61, Donald C Cook Nuclear Plant Unit 1 Enforcement Discretion Regarding Engineered Safety Feature Actuation System Steam Line Isolation Automatic Actuation Logic and Actuation Relays for Steam Generator Stop Valve Dump Valve, July 23, 2012
- AR 2012-8834, Unit 1 Blown Fuses on 1-MRV-212 and 1-MRV-222
- AR 2013-5704, CB 12CD Tripped Open When Attempting to Restore 1-TR101CD
- AR 2013-6192, Trip of 2CD RAT
- AR 2013-6194, Transformer 101CD Reserve Feed Tripped Due to Fault
- AR 2013-6405, Failure to Identify Cause Using the FIP Process
- AR 2013-7472, Unexpected Power Transient After Syncing Main Generator
- Control Room Logs, April 24 and May 19, 2013
- OHI-4000, Conduct of Operations: Standards, Revision 78

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
AFW	Auxiliary Feedwater
AR	Action Request
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CCW	Component Cooling Water
CFR	Code of Federal Regulations
EDG	Emergency Diesel Generator
EDT	Eastern Daylight Time
ET	Eddy Current
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
ISI	Inservice Inspection
LER	Licensee Event Report
LCO	Limiting Condition for Operation
LOCA	Loss-of-coolant Accident
NCV	Non-Cited Violation
NDE	Non-destructive Examination
NOED	Notice of Enforcement Discretion
NRC	U.S. Nuclear Regulatory Commission
OSP	Outage Safety Plan
PARS	Publicly Available Records System
PT	Dye Penetrant
RAT	Reserve Auxiliary Transformer
RCS	Reactor Coolant System
RFO	Refueling Outage
SDP	Significance Determination Process
SG	Steam Generator
TS	Technical Specification
TSO	Transmission System Operator
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
UT	Ultrasonic
WO	Work Order

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Sincerely,

/RA/

John B. Giessner, Chief
Branch 4
Division of Reactor Projects

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

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Letter to L. Weber from J. Giessner dated August 6, 2013

SUBJECT: D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2 – NRC INTEGRATED INSPECTION REPORT 05000315/2013003 and 05000316/2013003

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