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

October 26, 2011

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, INTEGRATED INSPECTION REPORT 05000315/2011004; 05000316/2011004

Dear Mr. Weber:

On September 30, 2011, 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 October 6, 2011, 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.

Based on the results of this inspection, no findings of significance were identified.

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

Sincerely,

/RA/

Jamnes L. Cameron, Chief
Branch 6
Division of Reactor Projects

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

Enclosure: Inspection Report 05000315/2011004; 05000316/2011004
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	05000315; 05000316
License Nos:	DPR-58; DPR-74
Report No:	05000315/2011004; 05000316/2011004
Licensee:	Indiana Michigan Power Company
Facility:	D. C. Cook Nuclear Power Plant, Units 1 and 2
Location:	Bridgman, MI
Dates:	July 1 to September 30, 2011
Inspectors:	J. Lennartz, Senior Resident Inspector P. LaFlamme, Resident Inspector T. Briley, Reactor Engineer E. Davidson, Reactor Systems Engineer A. Dunlop, Senior Reactor Engineer K. Barclay, Resident Inspector, Kewaunee
Approved by:	Jamnes L. Cameron, Chief Branch 6 Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

IR 05000315/2011004, 05000316/2011004; 07/01/2011 – 09/30/2011; D. C. Cook Nuclear Power Plant, Units 1 & 2; Routine Integrated Inspection Report

This report covers a 3-month period of baseline inspections by resident inspectors. 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

No findings were identified.

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at or near full power until September 7, 2011, when the reactor automatically tripped, as designed, because of a turbine trip. After investigating the cause for the turbine trip and implementing corrective actions, Unit 1 reactor was started up and the main generator was synchronized to the grid on September 9, 2011. Unit 1 returned to full power on September 11, 2011. On September 19, 2011, Unit 1 power was reduced to 53 percent to conduct planned steam generator safety-valve setpoint testing prior to the scheduled refueling outage. On September 21, 2011, Unit 1 was shutdown to commence Cycle 24 refueling outage, which was ongoing when the inspection period ended.

Unit 2 operated at or near full power during the entire inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 Readiness For Impending Adverse Weather Condition – Extreme Heat Conditions

a. Inspection Scope

The inspectors reviewed the licensee's procedures and compensatory actions taken for extended high ambient outside temperatures the week of July 18 and a hot weather alert that was issued by the transmission system operator. Inspection activities included daily monitoring of the off-normal environmental conditions; reviewing operator actions specified by plant specific procedures to verify that appropriate actions were completed; and plant walk downs to ensure that plant equipment operability was not adversely impacted by the extended hot weather.

This inspection constituted one readiness for impending adverse weather condition sample as defined in Inspection Procedure (IP) 71111.01-05.

b. Findings

No findings were identified.

.2 Readiness For Impending Adverse Weather Condition – High Wind

a. Inspection Scope

Because high winds were forecast for September 29-30, 2011, the inspectors reviewed the licensee's overall preparations for the expected weather conditions. On the morning of September 29, 2011, the inspectors walked down the 345 and 765 kilovolt (KV) switchyards to look for any loose debris that could become missiles during high winds and adversely affect offsite power stability and reliability, which could result in a plant transient. Additionally, the inspectors reviewed the licensee's procedures used to

respond to the adverse weather conditions. The inspectors also verified that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into its corrective action program (CAP) in accordance with station procedures.

This inspection constituted one readiness for impending adverse weather condition sample as defined in IP 71111.01-05.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

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

- Unit 1 west residual heat removal system;
- Unit 2 north safety injection system; and
- Unit 2 turbine driven auxiliary feedwater 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, Updated Final Safety Analysis Report (UFSAR), Technical Specification (TS) requirements, outstanding work orders (WOs), condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

.2 Semi-Annual Complete System Walkdown

a. Inspection Scope

The inspectors performed a complete system alignment inspection on Unit 1 and Unit 2 N-Train electrical distribution systems, which included the N-Train 250V batteries, battery chargers and distribution systems to verify the system's functional capability. This system was selected because it was considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review the batteries; associated chargers and breaker alignment, availability, condition and configuration; component labeling; operability of support systems; and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding WOs was performed to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified.

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

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

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

- fire zone 47B, Unit 2 4KV CD switchgear room;
- fire zones 44G and 44H, Unit 2 residual heat removal heat exchanger rooms;
- fire zones 62A, 62B and 62C, Unit 1 charging pump rooms;
- fire zone 69, Unit 1 and 2 auxiliary building 650 foot elevation; and
- fire zone 57, Unit 1 control room cable vault.

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, 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 five quarterly fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

No findings were identified.

1R06 Flooding (71111.06)

a. Inspection Scope

The inspectors selected underground bunkers/manholes subject to flooding that contained cables whose failure could disable risk-significant equipment. The inspectors determined that the cables were not submerged, that splices were intact, and that appropriate cable support structures were in place. The inspectors also verified recently installed water tight covers and drainage path modifications were functional. Additionally, the inspectors reviewed the manhole wetted cable action plan to ensure actions taken were effectively mitigating ground and rain water intrusion. The inspectors also reviewed the licensee's corrective action documents with respect to past submerged cable issues identified in the CAP to verify that the corrective actions were adequate. The inspectors walked down the following underground bunkers/manholes subject to flooding:

- MH1CA, Unit 1 600V low voltage cabling;
- MH1PC, Unit 1 35KV high voltage cable to 1-TR101CD reserve auxiliary transformer;
- MH2CAB, Unit 2 600V low voltage cabling;
- MH2CB, Unit 2 600V low voltage cabling;
- MH2CH, Unit 2 600V low voltage cabling to fire protection equipment; and
- MH2CC, Unit 2 600V low voltage cabling.

This inspection constituted one underground vaults sample as defined in IP 71111.06-05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

On August 2, 2011, and August 23, 2011, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification examinations 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 two quarterly licensed operator requalification program samples as defined in IP 71111.11. Two samples were completed this quarter because no meaningful inspection opportunities with respect to licensed operator requalification training were scheduled next quarter.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

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

- Unit 1 chemical and volume control letdown system;
- Unit 1 AB emergency diesel generator (EDG) system; and
- Unit 1 and 2 reactor protection systems.

The inspectors independently verified the licensee's actions to address system performance or condition problems in terms of the following:

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

The inspectors assessed the system's performance issues with respect to the reliability, availability, and condition monitoring.

The inspectors also reviewed the licensees 10 CFR 50.65 (a)(3) periodic evaluation that was completed for the second quarter in 2009 thru the third quarter of 2010. The inspectors verified that the evaluation was completed within the time constraints of the maintenance rule; that the licensee reviewed (a)(1) goals, (a)(2) performance criteria and effectiveness of corrective actions; and that industry operating experience was taken into account where practicable.

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 four quarterly maintenance effectiveness samples 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:

- planned maintenance on Unit 1 CD EDG on July 11-13, 2011, concurrent with emerging severe thunderstorms;
- planned maintenance on Unit 1 safety injection discharge cross tie valve actuator and Unit 2 AB reserve auxiliary transformer on September 15, 2011, concurrent with Unit 1 and 2 plant air compressor functional checks and Unit 2 motor driven auxiliary feedwater surveillance; and
- planned critical maintenance project on Unit 1 AB EDG on August 15-17, 2011.

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.

These maintenance risk assessments and emergent work control activities constituted three samples as defined in IP 71111.13-05.

b. Findings

No findings were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the following issues:

- Unit 2 4KV bus loss of voltage and degraded voltage relay failures;
- Unit 1 engineering safety features ventilation system filter failure to advance;
- Unit 2 turbine driven auxiliary feedwater pump room cooler number 2 failure; and
- Unit 1 annulus debris gate left open.

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 four samples as defined in IP 71111.15-05.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

.1 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following temporary modifications:

- 2-TM-11-41-R0; Place 2-NMO-152, Pressurizer Relief Valve Upstream Isolation Valve, on the backseat; and
- 12-TM-11-12-R0, Temporary Power from Bus 1-11A Switchgear for the North Spent Fuel Pit Pump PP-21N Motor, 12-PP-31N-MTR, from a Circuit Breaker Temporarily Installed in Compartment 1-11-A10.

The inspectors compared the temporary configuration changes and associated 10 CFR 50.59 screening and evaluation information 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 systems. The inspectors also compared the licensee's information to operating experience information to ensure that lessons learned from other utilities had been incorporated into the licensee's decision to implement the

temporary modification. The inspectors, as applicable, performed field verifications to ensure that the modifications were installed as directed; the modifications operated as expected; 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. Lastly, the inspectors discussed the temporary modification with operations, engineering, and maintenance personnel to ensure that the individuals were aware of how extended operation with the temporary modification in place could impact overall plant performance. Documents reviewed during this inspection are listed in the Attachment to this report.

This inspection constituted two temporary modification samples as defined in IP 71111.18-05.

b. Findings

No findings were identified.

.2 Permanent Plant Modifications

a. Inspection Scope

The following engineering design package was reviewed and selected aspects were discussed with engineering personnel:

- EC-0000050387; Implementation of Unit 2 Best-Estimate Large Break Loss-of-Coolant-Accident (LOCA) Analysis.

This document and related documentation were reviewed for adequacy of the associated 10 CFR 50.59 safety evaluation screening, consideration of design parameters, implementation of the modification, and relevant procedures, design, and licensing documents were properly updated. The modification consisted of implementing a new accident analysis for the large break LOCA that was approved via a License Amendment Request. The inspectors reviewed the licensee actions to address two errors identified in the analysis that affected containment backpressure. These actions included isolating essential service water flow to the containment spray heat exchangers during the injection phase such that the assumptions in the analysis approved by the NRC remained valid. Documents reviewed in the course of this inspection 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 testing activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- Unit 1 CD 250 volt battery exhaust fan starter contactor replacement;
- Unit 1 CD emergency diesel generator planned maintenance including pilot operated valve and crankcase breather discharge orifice replacement;
- Unit 1 AB emergency diesel generator planned maintenance including exhaust valve replacement; and
- Unit 1 essential service water valve 1-WMO-721 planned maintenance on the motor actuator.

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 four post-maintenance testing samples as defined in IP 71111.19-05.

b. Findings

No findings were identified.

1R20 Outage Activities (71111.20)

.1 Refueling Outage Activities

a. Inspection Scope

On September 21, 2011, Unit 1 was shut down to commence Cycle 24 refueling outage. The inspectors began refueling outage inspection activities, which are expected to be completed and documented during the next inspection period. An inspection sample was not completed this inspection period. Documents reviewed are listed in the Attachment to this report.

b. Findings

No findings were identified.

.2 Unit 1 Forced Outage

a. Inspection Scope

The inspectors evaluated outage activities for an unscheduled outage that began on September 7, 2011, when Unit 1 reactor automatically tripped, as designed, in response to a turbine trip. After investigating the cause for the turbine trip and implementing corrective actions, Unit 1 reactor was started up and the main generator was synchronized to the grid on September 9, 2011, which ended the outage.

The inspectors reviewed activities to ensure that the licensee considered risk while implementing the outage and the post-trip report, and observed startup activities. The inspectors also verified problems associated with the outage were entered in the CAP with the appropriate characterization and that appropriate corrective actions were completed. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

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

- Unit 2 CD EDG fast speed start surveillance (routine);
- Unit 1 north safety injection train surveillance test (inservice test);
- Unit 1 ice condenser 40-month basket inspection surveillance (containment isolation valves); and
- Unit 1 steam generator safety valve setpoint verification (routine).

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

- did preconditioning occur;
- were the effects of the testing adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- were acceptance criteria 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 UFSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy, applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability, tests were performed in accordance with the test procedures and other applicable procedures, jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers code, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- 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.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed a simulator training evolution for licensed operators on August 2, 2011, which required emergency plan implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also reviewed the post-evolution critique for the scenario. The inspectors noted any weaknesses and deficiencies in the crew's performance and ensured that the licensee evaluators noted the same issues and entered them into the CAP. The inspectors also reviewed the scenario package and other documents listed in the Attachment to this report.

This inspection of the licensee's training evolution with emergency preparedness drill aspects constituted one sample as defined in IP 71114.06-05.

b. Findings

No findings were identified.

2. OTHER ACTIVITIES

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

4OA1 Performance Indicator Verification (71151)

.1 Reactor Coolant System Leakage

a. Inspection Scope

The inspectors sampled licensee submittals for the Reactor Coolant System (RCS) Leakage performance indicator (PI) for Unit 1 and Unit 2 from the third quarter 2010 through the second quarter 2011. To determine the PI data accuracy reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, were used. The inspectors reviewed the licensee's operator logs and RCS leakage monthly operating report data for the period of July 1, 2010, through June 30, 2011, to validate the submittals' accuracy. The inspectors also reviewed the licensee's condition report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two RCS leakage samples as defined in IP 71151-05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

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

a. Inspection Scope

During 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 that 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: problem identification 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 issue recurrence. Minor issues entered into the licensee's CAP that resulted from the inspectors' observations are included in the Attachment to this report.

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

b. Findings

No findings were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

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

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

b. Findings

No findings were identified.

.3 Selected Issue Follow-Up Inspection: Loss of Glycol in Both Unit 1 and Unit 2 Apparent Cause Evaluation

a. Inspection Scope

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

- AR 2011-8582, "Loss of Glycol in both Unit 1 and Unit 2"

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.

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05.

b. Findings

No findings were identified.

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

.1 Unusual Event for Seismic Activity

a. Inspection Scope

The inspectors reviewed actions taken by licensee personnel for a declared Unusual Event on August 23, 2011. The Unusual Event was declared for Unit 1 and Unit 2 at 1424 Eastern Daylight Time based on emergency plan criterion N-1, "Natural or Destructive Phenomena Inside the Protected Area," after ground motion was sensed by plant personnel. Control room operators confirmed the seismic event using United States Geological Survey information. The Unusual Event was terminated at 1723 Eastern Daylight Time following an examination of plant systems, which verified no damage due to the seismic event.

The inspectors reviewed emergency plan implementing procedures, abnormal operating procedures, control room logs, and the event notification worksheets. The inspectors verified that the event classification was accurate, that required notifications to NRC and to state and local officials were completed in a timely manner, and that control room operator actions were completed in accordance with plant procedures. The inspectors also conducted plant tours to verify that the seismic event did not cause any damage to plant equipment.

The inspectors reviewed action requests to verify that identified problems pertaining to event response were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This event follow-up inspection constitutes one sample as defined in IP 71153-05.

b. Findings

No findings were identified.

.2 Unit 1 Automatic Reactor Trip

a. Inspection Scope

The inspectors observed the control room operators respond to a Unit 1 automatic reactor trip on September 7, 2011, that was caused by a turbine trip. The inspectors verified that control room operators responded in accordance with plant procedures; walked down control panels to verify that plant equipment responded as designed; and verified that the event was accurately described and that the NRC was notified in a timely manner. The inspectors also reviewed action requests to verify that identified problems pertaining to the trip were entered into the CAP with the appropriate significance characterization. Documents reviewed in this inspection are listed in the Attachment.

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

b. Findings

No findings were identified.

.3 Unit 2 Elevated Unidentified Reactor Coolant System Leakage

a. Inspection Scope

The inspectors reviewed the control room operator response to Unit 2 unidentified RCS leakage that increased from a nominal 0.01 gallons-per-minute to 0.6 gallons-per-minute after cycling pressurizer power operated relief block valve 2-NMO-152 on September 22, 2011, for a scheduled surveillance. The inspectors verified that the operators responded in accordance with plant procedures and that unidentified RCS leakage remained below the technical specification limit of 1.0 gallon-per-minute. The inspectors also observed maintenance and operations personnel conduct an infrequently performed evolution on September 23, 2011, to backseat valve 2-NMO-152. After valve 2-NMO-152 was on the backseat, RCS unidentified leakage returned to the nominal 0.01 gallons-per-minute. Documents reviewed in this inspection are listed in the Attachment.

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

b. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On October 6, 2011, 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

J. Beer, Radiation Protection Health Physicist
D. Cantrell, Site Senior License
M. Carlson, Site Support Services Vice President
J. Chambers, Emergency Preparedness Manager
R. Ebright, Engineering Director
M. Ferguson, Licensed Operator Requalification Training Lead
J. Gebbie, Site Vice President
R. Keppeler, Maintenance Manager
Q. Lies, Plant Manager
J. Nimtz, Regulatory Affairs Senior Licensing Activities Coordinator
K. O'Conner, Compliance Manager
M. Scarpello, Regulatory Affairs Manager
R. West, Regulatory Assurance
S. Vazquez, Operations Director

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

NONE

Closed

NONE

Discussed

NONE

LIST OF DOCUMENTS REVIEWED

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

1R01 Adverse Weather Protection

- 12-OHP-4022-001-010, Severe Weather, Revision 9
- 1-OHP-4024-103, Drop 42, Electrical Switchgear Room Temperature High, Revision 19
- 1-OHP-4024-DCS-MT, Drop 251, DCS Cabinet A/C Trouble, Revision 13
- 1-OHP-4024-DCS-MT, Drop 252, High Temperature DCS Cabinet, Revision 13
- AR 2011-8355, CRID Inverter Room / Electrical Switchgear Room High Temperature
- PMP-5055-001-001, Attachment 11, Cooling for DCS Cabinets Contingency, Revision 15
- PMP-5055-SWM-001, Severe Weather Guidelines, Revision 4

1R04 Equipment Alignment

- 12 EHP 5025.EQE.002, Performance EQ Evaluations, Revision 0
- 1-2-UNC-107 CALC 1, Uncertainty Calculation for AB/CD/N Train Battery Room Ambient Temperature, Revision 1
- 1-E-N-ELCP-250-008, Load Profile for N Train Battery, Revision 0
- 1-OHP-4021-008-002, Placing Emergency Core Cooling System in Standby Readiness, Revision 25
- 1-OHP-4021-082-015, Operation of the N Train Battery System, Revision 10
- 250VDC Maintenance Rule Scoping Document, May 4, 2010
- 2-OHP-4021-008-002, Placing Emergency Core Cooling System in Standby Readiness, Revision 23
- 2-OHP-4023, Loss of all AC Power, Revision 25
- 2-OHP-4030-256-017T, Turbine Driven Auxiliary Feed Water System Test Lineup Sheet 1 TDAFW Valve Lineup, Revision 1
- AR 00817754, 2-GRH-L-37, Missing Jam Nut on Pipe Side of Sway Strut
- AR 2010-6540, Unit 2 East CCP Inboard Bearing Seals Leak Oil
- AR 2011-10611, 2-IPI-220-V1 Root Valve Has a Dry White Ring
- AR 2011-8143, Valve Is Missing Position Indicating Rod
- AR 2011-9389, Material Staged Near Safety Related Duct Work
- AR 2011-9921, Request a Work Order Only to Replace Loss of Voltage Relays
- DB-12-250V, Design Basis Document for the 250V DC System, Revision 1
- DIT-B-01061-13, Compilation of Accident Analysis Input Assumptions Concerning Timing of Actions in Emergency Operating Procedures, March 3, 2010
- MD-12-HV-022-N, N-Train Battery Room Hydrogen Analysis and Maximum Temperature During Normal Plant Operation, Revision 1
- MD-12-HV-029-N, N Battery Room Station Blackout Temperature Analysis, Revision 0
- OP-2-12065, DC Aux One-Line 250V DC Bus Engineered Safety System Train N, Revision 11
- OP-2-98210, 250VDC Train N Battery Distribution Elementary Diagram, Revision 16
- PS-250VP-001, N-Train Undervoltage Relay Settings, Revision 0
- Unit 1/2 N Train 250V DC System Health Report 2010 & 2011

1R05 Fire Protection

- 12-FFP-4030-066-012, Fire Protection Yearly Cycle and Line Up Verification, Revision 11
- 12-FPP-4030-066-024, Hydrostatic Testing And Rerack of Fire Hose, Revision 3
- AR 2010-1610, Sprinkler Head Needing Evaluation
- AR 2011-8076 Fire Impairments Not Being Added to Hourly Fire Watch Tour
- AR 2011-8640, Valve Can Not Be Cycled
- AR 2011-8710, Conduit Penetrations Without Fire Seal in X-Area
- AR 2011-8998, Ionization Detector Inoperable
- FHA, Fire Hazards Analysis, Revision 14
- Fire Pre-Plan, Revision 7

1R06 Flood Protection

- AR 00852598, Expansion Joint Found Unacceptable
- AR 2010-11610, Control Cables Found Submerged in Manholes
- AR 2010-12409, Cables in Contact with Water in MH2CH & MH1CA
- AR 2010-3530, 1-XJ-24: Lateral Offset is Outside Vendor Drawing Limits
- AR 2011-0587, Manhole Inspection
- AR 2011-2902, Manhole Wetted Cable Action Plan
- AR 2011-8846, Water Found in Manholes During Weekly Inspections
- AR 2011-8855, MCC Pit Drain is Plugged
- AR 2011-8916, Water in Contact With Cables in Manholes
- WO 55387877-01, Weekly Manhole Inspections for MH2CAB, August 1, 2011
- WO 55388019-01, Weekly Manhole Inspections for MH1CA, MH1PC, MH2CB, MH2CC and MH2CH, August 4, 2011

1R11 Licensed Operator Requalification Program

- 2-OHP-4023-E-1, Loss of Reactor or Secondary Coolant, Revision 15
- 2-OHP-4023-E-1-3, Transfer to Cold Leg Recirculation, Revision 20
- RQ-E-3603-U2-C, Cycle 3603 As-Found Simulator Evaluation Alternate, August 2, 2011
- RQ-E-3604-U1-A, Cycle 3604 As-Found Simulator Evaluation, August 23, 2011

1R12 Maintenance Effectiveness

- Applied Technical Services, Incorporated, Failure Analysis of ASCO Solenoid Coil, P/N HC8316G054V, July 13, 2011
- AR 2010-10852, Maintenance Rule Action Plan Not Prepared
- AR 00831331, Unit 1 N-42 Instrument Drift
- AR 00835798, Bistable Test Failed
- AR 00849719, Out of Tolerance Relays As Found
- AR 2010-0747, Failure of Containment Spray to Actuate
- AR 2010-10095, Maintenance Rule Status Not Updated in a Timely Manner
- AR 2010-11328, Closing Force of ICE 23 Left Exceeded MR Criteria
- AR 2010-14230, 2-BLP- Failed Low Resulting in Manual FRV Control
- AR 2010-1860, Breaker in MCC Cubicle 1-ABV-D-3B Failed Testing
- AR 2010-2926, Loop 3 RCS Delta-T Failed Low
- AR 2010-3532, Xfmr 201AB Neutral/Ground Overcurrent Fault
- AR 2010-3656, 1-ABD0-B-3D Breaker Tripped Open When Pump Auto Started
- AR 2010-4030, Unexpected Feedwater Control Response Occurred on Unit 1
- AR 2010-8856, Review the Decision to take EDG Unavailability Time

- AR 2011-10977 Original 2009 Maintenance Rule (a)(3) Assessment Lost
- AR 2011-2499, Perform MRULE on 2-RU-27, Unit 2 Master Pressure Controller Failure
- AR 2011-5914, Unit 1 Chemical and Volume Control Letdown Isolation
- AR-00854817, 23 SG Feed Flow Instrument Trip Response
- D.C. Cook Periodic Assessment of Maintenance Effectiveness Report, July 12, 2011
- DB-12-250V, 250V DC System Design Basis Document, Revision 1
- DB-12-RPS, Reactor Protection and Engineered Safety Features Actuation Systems Design Basis Document, Revision 5
- Emergency Diesel Generators Maintenance Rule Scoping Document, August 2, 2001
- GT00858741, NRC Information Notice 2009-22, Recent Human Performance Issues At Nuclear Power Plants
- Reactor Protection System Health Reports, 2010 & 2011
- Reactor Protection System Maintenance Rule Scoping Document, May 11, 2001
- Two-Year Unavailability Report for the Emergency Diesel Generators System, July 21, 2011
- Unit 1 & 2 Reactor Protection System RPS-02 Maintenance Rule (a)(1) Action Plan, April 29, 2011
- Unit 1 & 2 Reactor Protection System Test Injection Switches Maintenance Rule a(1) Action Plan, January 16, 2003
- Unit 1 EDG System Health Reports, 2010 & 2011
- Unit 1 Emergency Diesel Generator System MR (a)(1) Action Plan, October 1, 2010

1R13 Maintenance Risk Assessments and Emergent Work Control

- AR 2011-9347, Component Missed on Risk Assessment Analysis for Week 7907
- AR 2011-9708, Investigate and Correct Safety Monitor Mapping for 1-ABD-A
- Control Room Logs, July 10-13, August 15-17, September 15, 2011
- Daily work activity schedule, July 10-13, August 15-17, September 14-15, 2011
- PMP-2291-OLR-001, Online Risk Management, Unit 1 and Unit 2 Part 1, Configuration Risk Assessment, July 10-13, August 15-17, September 15, 2011

1R15 Operability Evaluations

- 2-IHP-4030-282-007, (4KV) Bus Loss of Voltage and (4KV) Bus Degraded Voltage Relay Trip Actuation, June 2, 2011
- AR 2011-6532, Relay 2-27-1-T21D Failed TADOT
- AR 2011-6609, Relay 2-27-T21D-2 Failed Surveillance
- AR 2011-6621, Incorrect Risk Assessment for 4KV LOV/DV relays Surveillance
- AR 2011-6633, Relay 2-27-T21D-3 Failed Surveillance
- AR 2011-6652, Perform Past Operability Determination for Failed Surveillance
- AR 2011-7524, U-1 TDAFW Required Bearing Cooling Water to be Utilized
- AR 2011-7824, 1-HV-AES-1 Rollomatic Filter Not Advancing
- AR 2011-7873, 1-HV-AES-2 Rollomatic Filter Expended
- AR 2011-9514, U-1 Annulus Debris Gate Left Open
- AR 2011-9574, U2 TDAFP Room Cooler Number 2 Inoperable
- DB-12-4KV, Design Basis Document for the 4KV System, Revision 2
- DB-12-HVAB, Design Basis Document for the Auxiliary Building Ventilation System, Revision 4
- DIT-B-01874-01, TDAFP Room Temperature with One or Both Room Coolers Out of Service, June 8, 2001
- OP-1-12002-62, Main Auxiliary One-Line Diagram Bus C and D Engineered Safety System Train A, Revision 62

- PMP-4030-001-001, Impact of Safety Related Ventilation on the Operability of Technical Specification Equipment, Revision 10
- SD-000429-029, Calculations for Anchorage of AES Air Filtration Units for Unit-1, Revision 0
- TH-00-05, Auxiliary Feedwater Pump Room Heat-up Temperatures, Revision 0
- WO 55383783-01, 4KV Loss of Bus Voltage and Degraded Bus Voltage Relays, June 2, 2011
- WO 55386713-01, 1-HV-AES-1 Rollomatic Filter Not Advancing, Inspect and Repair, July 6, 2011

1R18 Plant Modifications

- 12-EHP-5040-MOD-001, 2-TM-11-41-R0, Temporary Modification to Place 2-NMO-152 on the Backseat, September 23, 2011
- 12-OHP-4021-018-002, Placing in Service and Operating the Spent Fuel Pool Cooling Clean-Up System, Revision 23
- 12-OHP-4021-019-001, Operation of the Essential Service Water System, Revision 44
- 12-OHP-4022-018-001, Loss of Spent Fuel Pit Cooling, Revision 16
- 12-OHP-4024-134, Annunciator 134 Response: Spent Fuel Pit, Revision 7
- 12-OHP-4030-018-130N, North Spent Fuel Pit Pump Surveillance Test, Revision 8
- 12-TM-11-12-R0, Temporary Power from Bus 1-11A Switchgear for the North Spent Fuel Pit Pump PP-21N Motor 12-PP-31N-MTR from a Circuit Breaker Temporarily Installed in Compartment 1-11-A10, Revision 0
- 2-AEP-VELN-P2-80449-KSP-1, Velan 3 inch - 1500 Pound Gate Valve Bolted Bonnet Motor Operated, Revision 2
- 2-OHP-4030-219-0022FV, ESW Flow Verification, Revision 13
- 2-OHP-4030-219-022E, East ESW Group A and Comprehensive Pump Test, Revision 21, performed on July 14, 2011
- 50.59 Screen 2011-0120-00, Restrict Option to Open CTS HX ESW Outlet Valves to Satisfy 2000 GPM ESW Pump Minimum Flow Requirement, Revision 0
- AEP-NRC-2011-35, Errors in Containment Backpressure Calculation in Large Break Loss-of-Coolant Accident Analysis, June 16, 2011
- AR 2010-1190, Cook Single Active Failure Design/Licensing Bases
- AR 2010-8696, Unit 1 and Unit 2 BELOCA Analysis Issue
- AR 2011-7454, Weak Design Basis for ESW Min Flow
- EC-0000050387, Implementation of Unit 2 Best-Estimate Large Break LOCA Analysis, Revision 0
- GT 2011-8655, ESW Pump Minimum Flow, July 28, 2011
- JIT RQ-J-3505, CTS Operability and EC-50387, June 17, 2011
- OP-12-5136, Flow Diagram Spent Fuel Pit Cooling & Clean-Up Unit 1 & 2, Revision 24
- OP-25128A, Flow Diagram Reactor Coolant Unit 2, Revision 59
- PMP-5040-MOD-007, Engineering Modifications, Revision 20
- SD-01800, Spent Fuel Pit Cooling and Clean-Up System, Revision 1
- Technical Specification Bases Change for EC-50387, June 20, 2011
- UCR-1974, New Unit 2 LBLOCA Analysis, June 29, 2011

1R19 Post-Maintenance Testing

- AR 00852269, 2-QR-78 Failed PMT
- AR 2011-8061, Relay 1-87-DGCD-2 Failed to Meet Acceptance Criteria
- AR 2011-8210, 1-WMO-721 MOV Long Life Grease
- AR 2011-9349, Inadequate PMT of 1-WMO-721
- AR 2011-9351, PM Couldn't Be Performed Completely

- AR 2010-13596, VT-2 Inspection not Planned or Performed
- OP-1-5120Y, Flow Diagram 100 Pound Control Air System Header Diesel Generators 1AB and 1CD, Revision 10
- OP-1-5151B, Flow Diagram Emergency Diesel Generator AB, Revision 60
- WO 55315488-02, PMT for the U1 AB EDG Quick Exhaust Valves, August 17, 2011
- WO 55361875-02, Crankcase Breather Discharge Orifice Replacement, July 13, 2011
- WO 55387458-06, Exhaust Fan HV-SGRX-6 Starter EZC-C-R2C Contactor, July 21, 2011
- AR 2011-1859, 1-101-SFTS8 Failed PMT
- WO 55341105-02, Calibrate Relays 1-87-DGCD-1,2 & 3, July 12, 2011
- 1-OHP-4021-032-001CD, DG1CD Operation, July 13, 2011
- WO 55263761-02, 1-WMO-721, Stroke for PMT/Operability, August 16, 2011
- 1-OHP-4021-032-001AB, DG1AB Operation, August 17, 2011
- WO 55244380-03, 1-WRV-723, Perform PMT, August 17, 2011
- WO 55367612-04, 1-POV-4-CD, Pilot Operated Valve Replacement PMT, July 13, 2011

1R20 Outage Activities

- 1-OHP-4021-050-001, Turbine Generator Normal Startup and Normal Operation, September 9, 2011
- PMP-4100-SDR-001, Plant Shutdown Safety and Risk Management, Revision 23
- 1-OHP-4022-017-001, Loss of RHR Cooling, Revision 19
- D.C. Cook's Response to NRC Generic Letter 88-17
- R-DIS-TRA-0497, Train A Lower Containment H2 Igniter Clearance
- 12-OHP-4050-FHP-023, Reactor Vessel Head Removal with Fuel in the Vessel, Revision 8
- 1-OHP-4021-001-004, Plant Cooldown from Hot Standby to Cold Shutdown, Revision 61
- 1-OHP-4021-001-003, Power Reduction
- IPTE Briefing Guide for U1F11C Reactor Start-Up, September 7, 2011
- R-EDG-DGAB-0385, 1AB EDG Clearance
- Unit 1 Cycle 24 Outage Risk PORC Presentation, August 22, 2011
- 1-OHP-4021-001-002, Reactor Start-Up, September 9, 2011
- 1-OHP-4021-001-006, Power Escalation, September 9, 2011

1R22 Surveillance Testing

- 12-EHP-4030-051-256, Main Steam Safety Valve Setpoint Verification With Lift Assist Device, September 19, 2011
- 12-MHP-4030-010-007, Ice Condenser Ice Basket Surveillance, September 26, 2011
- 1-OHP-4030-108-051N, North Safety Injection Pump System Test, August 30, 2011
- 2-OHP-4030-232-027CD, Unit 2 CD Diesel Generator Operability Test, August 10, 2011
- AR 2011-10604, Failure of Main Steam Safety Valve 1-SV-2A-1
- AR 2011-10666, Unable to Adjust 1-SV-1B-A Within AL Acceptance Criteria
- TDB-2-FIG-15-1, Safety Related Pump Inservice Test Hydraulic Reference, Revision 108
- TDB-2-FIG-15-2, Safety Related Pump Inservice Test Vibration Reference, Revision 89
- TDB-2-FIG-19-9, Unit 2 Diesel Generator Pot Settings, Revision 52

1EP6 Drill Evaluation

- EMD-32a, Michigan State Police, Nuclear Plant Event Notification (Drill), August 2, 2011
- PMP-2060-EPP-100, Emergency Response, Revision 20
- PMP-2080-EPP-101, Emergency Classification, Revision 14
- TRP-2070-TAP-400-OPS, Emergency Plan Performance Indicator Data Sheet (Simulator), August 2, 2011

4OA1 Performance Indicator Verification

- AR 2011-1599, Problems Identified with the RCS Leakage Spread Sheets
- AR 2011-1977, Unidentified RCS Leak Rate in Unit 1 Requires Tier Two Actions
- PMP-7110-PIP-001, Reactor Oversight Program Performance Indicators and Monthly Operating Report Data, Reactor Coolant System Leakage, Unit 1 and 2, 3rd Quarter 2010 through 2nd Quarter 2011

4OA2 Identification and Resolution of Problems

- 12-OHP-2110-CPS-001, Clearance Permit System, Revision 32
- 12-OHP-4024-135, Annunciator #135 Response: Ice Condenser Refrigeration Subpanel Electro-Larm, Revision 8
- AR 2011-8582, Loss of Glycol in both Unit 1 and Unit 2
- AR 2011-8588, U1 Glycol Tk Lvl Control Switch alarm will not clear
- AR 2011-8601, Evaluate operation of 2-VCR-20 during glycol transient
- Control Room Logs, July 26, 2011
- OP-1-5146A, Flow Diagram Ice Condenser Refrigeration Unit No. 1, Revision 38
- OP-1-5146B, Flow Diagram Ice Condenser Refrigeration Unit No. 1, Revision 31
- OP-1-98290, Ice Condenser Refrigeration System Elementary Diagram Sh. No. 4, Revision 10
- OP-2-5146B, Flow Diagram Ice Condenser Refrigeration Unit No. 2, Revision 29
- OP-2-98290, Ice Condenser Refrigeration System Elementary Diagram Sh. No. 4, Revision 12
- PMP-2110-CPS-001, Clearance Permit System, Revision 31
- SD-12-REFR-100, Ice Condenser Refrigeration System, Revision 1

4OA3 Follow-Up of Events and Notices of Enforcement Discretion

- 1-OHP-4022-001-007, Abnormal Operating Procedure, Earthquake, Revision 13
- 2-OHP-4022-001-007, Abnormal Operating Procedure, Earthquake, Revision 14
- AR 2011-10113, Unit 1 Audio Count Rate Drawer not Working
- AR 2011-10766, Unit 2 has a 0.6 Gallon-Per-Minute RCS Leak
- AR 2011-9618, Procedure Enhancement for Earthquake Abnormal
- AR 2011-9630, UE Declaration August 23, 2011
- AR 2011-9655, Michigan State Police Could not Call Back
- AR 2011-9657, EAL is Overly Conservative for UE Entry for Seismic Events
- IPTE Brief, 2-NMO-152, September 23, 2011
- Michigan State Police, EMD-32a, Nuclear Plant Notification, August 23, 2011
- PMP-2080-EPP-101, Emergency Classification, Revision 14
- Reactor Plant Event Notification Worksheet, EN 47194, August 23, 2011
- Reactor Plant Event Notification Worksheet, EN 47247, September 7, 2011
- WO55390829-15, 2-NMO-152-ACT, Place Valve into Backseat Condition

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
EDG	Emergency Diesel Generator
IP	Inspection Procedure
KV	Kilovolt
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records System
PI	Performance Indicator
RCS	Reactor Coolant System
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
WO	Work Order

UNITED STATES
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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, INTEGRATED INSPECTION REPORT 05000315/2011004; 05000316/2011004

Dear Mr. Weber:

On September 30, 2011, 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 October 6, 2011, 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.

Based on the results of this inspection, no findings of significance were identified.

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

Sincerely,
/RA/
Jamnes L. Cameron, Chief
Branch 6
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. Cameron dated October 26, 2011.

SUBJECT: D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2, INTEGRATED INSPECTION REPORT 05000315/2011004; 05000316/2011004

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