



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352
October 25, 2010

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; 05000315/2010004; 05000316/2010004

Dear Mr. Weber:

On September 30, 2010, 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 13, 2010, with Mr. J. Gebbie, Site Vice President, 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 05000315/2010004; 05000316/2010004
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: 05000315/20010004; 05000316/2010004

Licensee: Indiana Michigan Power Company

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

Location: Bridgman, MI

Dates: July 1 through September 30, 2010

Inspectors: J. Lennartz, Senior Resident Inspector
P. LaFlamme, Resident Inspector
T. Go, Health Physics Inspector
R. Jickling, Senior Emergency Preparedness Inspector
P. Voss, Reactor Engineer

Approved by: J. Cameron, Chief
Branch 6
Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

IR 05000315/2010004, 05000316/2010004; 07/01/2010 – 09/30/2010; D. C. Cook Nuclear Power Plant, Units 1 & 2; Routine Integrated Inspection Report

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional 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 violations of significance were identified.

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

Summary of Plant Status

Unit 1 was at or near full power during the entire inspection period.

Unit 2 was 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 – High Wind

a. Inspection Scope

Because high winds were forecast for September 3, 2010, the inspectors reviewed the licensee's overall preparations for the expected weather conditions. On the morning of September 3, 2010, 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 in accordance with station procedures.

This inspection constituted one sample to evaluate readiness for impending adverse weather conditions.

b. Findings

No findings of significance 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 north train of safety injection;
- Unit 2 CD emergency diesel generator; and
- Unit 1 east train of residual heat removal (RHR).

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 Specifications (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 corrective action program (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 Inspection Procedure (IP) 71111.04-05. Also, additional activities were performed during the Unit 1 east RHR system walkdown that were associated with Temporary Instruction (TI) 2515/177, "Managing gas accumulation in emergency core cooling, decay heat removal, and containment spray systems." These activities are described in Section .3 below.

b. Findings

No findings of significance were identified.

.2 Semi-Annual Complete System Walkdown

a. Inspection Scope

The inspectors performed a complete system alignment inspection of the Unit 1 250 volt direct current electrical distribution system which included the AB, CD and N-Train 250 volt direct current batteries and support systems to verify the functional capability of the system. This system was selected because it was considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review 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 of significance were identified.

.3 System Walkdown associated with Temporary Instruction 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems."

a. Inspection Scope and Documentation

On Tuesday, September 21, 2010, the inspectors conducted a walkdown of the Unit 1 east RHR system in sufficient detail to reasonably assure the acceptability of the licensee's walkdowns (TI 2515/177, Section 04.02.d). The inspectors also verified that the information obtained during the licensee's walkdown was consistent with the items identified during the inspector's independent walkdown (TI 2515/177, Section 04.02.c.3).

In addition, the inspectors verified that the licensee had isometric drawings that describe the Unit 1 east RHR system configurations and had acceptably confirmed the accuracy of the drawings (TI 2515/177, Section 04.02.a). The inspectors verified the following related to the isometric drawings:

- High point vents were identified;
- high points that do not have vents were acceptably recognizable;
- other areas where gas can accumulate and potentially impact subject system operability, such as at orifices in horizontal pipes, isolated branch lines, heat exchangers, improperly sloped piping, and under closed valves, were acceptably described in the drawings or in referenced documentation;
- horizontal pipe centerline elevation deviations and pipe slopes in nominally horizontal lines that exceed specified criteria were identified;
- all pipes and fittings were clearly shown; and
- the drawings were up-to-date with respect to recent hardware changes and that any discrepancies between as-built configurations and the drawings were documented and entered into the CAP for resolution.

The inspectors verified that piping and instrumentation diagrams accurately described the subject systems, that they were up-to-date with respect to recent hardware changes, and any discrepancies between as-built configurations, the isometric drawings, and the piping and instrumentation diagrams were documented and entered into the CAP for resolution (TI 2515/177, Section 04.02.b).

Documents reviewed are listed in the Attachment to this report.

This inspection effort counts towards the completion of TI 2515/177 which will be closed in a later inspection report.

b. Findings

No findings of significance 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 5, Unit 1 and 2 auxiliary building 587 elevation east end;
- fire zone 9, Unit 1 reactor cable tunnel quadrant 3 north;
- fire zone 24, Unit 2 reactor cable tunnel quadrant 3 middle;
- fire zone 47A, Unit 2 4kV AB switchgear room;
- fire zone 44S, Unit 1/2 auxiliary building 609 elevation south end; and
- fire zone 44E and 44F, Unit 2 east and west containment spray heat exchanger rooms.

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

b. Findings

No findings of significance were identified.

1R06 Flooding (71111.06)

a. Inspection Scope

The inspectors reviewed preventive maintenance activities for the following four manholes, which contained risk-significant cables and were subject to flooding:

- 4 kV manholes MH1PA, MH2PA and MH1PB;
- 4 kV Units 1/2 settling pits; and
- 34.5 kV manholes MH1PC and MH1PD.

Through direct observation, the inspectors determined if the cables were submerged in water; verified that the cables were intact; and, that the support structures were not degraded. The inspectors also verified that licensee personnel completed inspection activities in accordance with plant procedures.

In addition, the inspectors reviewed the licensee's corrective action documents with respect to past flood-related items identified in the corrective action program to verify the adequacy of the corrective actions. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one flooding sample regarding annual review of cables located in underground manholes as defined in IP 71111.06-05.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Regualification Program (71111.11)

a. Inspection Scope

On August 3, 2010, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator regualification 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 one quarterly licensed operator regualification program sample as defined in IP 71111.11.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

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

- Unit 1 component cooling water system; and
- Unit 1 reactor coolant 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 two quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

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

- emergent maintenance on Unit 2 plant air compressor during the week of July 11, 2010;
- planned maintenance on Unit 2 AB emergency diesel generator on July 26-28, 2010;

- planned maintenance on Unit 2 CD emergency diesel generator on August 2-4, 2010; and
- activities during the week of September 20, 2010, which included: planned switchyard work and surveillance testing on the Unit 2 AB emergency diesel generator, Unit 1 turbine driven auxiliary feedwater pump, and Unit 1 west containment spray system.

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 four samples as defined in IP 71111.13-05.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the following action requests (AR):

- AR 2010-3626, TSs requirements with reserve feed inoperable and essential service water cross-ties open;
- AR 2010-4189, Unit 1 train A and B post accident containment hydrogen monitoring valves found out of position;
- AR 2010-7985, Control room ventilation system damper control switch out of position; and
- AR 00863159, Technical support center ventilation damper did not move as required.

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 of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

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

- Unit 2 west centrifugal charging pump speed increaser oil relief valve replacement;
- Unit 2 AB emergency diesel generator upper valve gear lubrication solenoid valve replacements;
- Unit 2 CD emergency diesel generator post-maintenance testing following planned maintenance which included replacement of the control air check valve and jacket water surge tank float valve; and
- Unit 2 containment isolation valve 2-DCR-621 solenoid replacement.

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 TS, 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 of significance were identified.

1R22 Surveillance Testing (71111.22)

.1 Surveillance Testing

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 steam generator stop valve dump valve surveillance test (in-service test);
- Unit 1 control room tracer gas surveillance test (routine);
- Unit 2 moderator temperature coefficient determination (routine);
- Unit 1 full length control rod operability test (routine); and
- Unit 2 safety injection discharge piping ultrasonic test examination for gas voids (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 were in accordance with TSs, the UFSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers code, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;

- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Also, additional activities were performed during the review of the safety injection discharge piping ultrasonic test examination for gas voids that were associated with TI 2515/177, "Managing gas accumulation in emergency core cooling, decay heat removal, and containment spray systems." These activities are described in Section .2 below.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted four routine surveillance testing samples, and one inservice testing sample, as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings of significance were identified.

.2 Surveillance Testing associated with Temporary Instruction 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems"

a. Inspection Scope

The inspectors reviewed the ultrasonic test examination on the Unit 2 south safety injection discharge header high point near vent valve 2-SI-120S and verified that the test results were acceptable in accordance with the gas accumulation condition monitoring program.

The inspectors reviewed procedures used for conducting surveillances and determination of void volumes to ensure that the void criteria was satisfied and will be reasonably ensured to be satisfied until the next scheduled void surveillance (TI 2515/177, Section 04.03.a). Also, the inspectors reviewed procedures used for filling and venting following conditions which may have introduced voids into the subject systems to verify that the procedures acceptably addressed testing for such voids and provided acceptable processes for their reduction or elimination (TI 2515/177, Section 04.03.b). Specifically, the inspectors verified that:

- gas intrusion prevention, refill, venting, monitoring, trending, evaluation, and void correction activities were acceptably controlled by approved operating procedures (TI 2515/177, Section 04.03.c.1);
- procedures ensured the system did not contain voids that may jeopardize operability (TI 2515/177, Section 04.03.c.2);
- procedures established that void criteria were satisfied and will be reasonably ensured to be satisfied until the next scheduled void surveillance (TI 2515/177, Section 04.03.c.3); and

- procedures included independent verification that critical steps were completed (TI 2515/177, Section 04.03.c.6).

The inspectors verified the following with respect to surveillance and void detection:

- surveillance frequency was consistent with the GL 2008-01 commitment as specified in EHI-5202, Gas Accumulation Condition Monitoring Program;
- surveillance methods were acceptably established to achieve the needed accuracy (TI 2515/177, Section 04.03.d.3);
- surveillance procedures included up-to-date acceptance criteria (TI 2515/177, Section 04.03.d.4);
- procedures included effective follow-up actions when acceptance criteria are exceeded or when trending indicates that criteria may be approached before the next scheduled surveillance (TI 2515/177, Section 04.03.d.5);
- venting procedures and practices utilized criteria such as adequate venting durations and observing a steady stream of water (TI 2515/177, Section 04.03.d.7);
- an effective sequencing of void removal steps was followed to ensure that gas does not move into previously filled system volumes (TI 2515/177, Section 04.03.d.8);
- venting results were trended periodically to confirm that the systems are sufficiently full of water and that the venting frequencies are adequate. The inspectors also verified that records on the quantity of gas at each location are maintained and trended as a means of preemptively identifying degrading gas accumulations (TI 2515/177, Section 04.03.d.10);
- surveillances were conducted at any location where a void may form, including high points, dead legs, and locations under closed valves in vertical pipes (TI 2515/177, Section 04.03.d.11); and
- the licensee ensured that systems were not pre-conditioned by other procedures that may cause a system to be filled, such as by testing, prior to the void surveillance (TI 2515/177, Section 04.03.d.12).

Documents reviewed are listed in the Attachment to this report.

This inspection effort counts towards the completion of TI 2515/177 which will be closed on a later Inspection Report.

b. Findings

No findings of significance were identified.

1EP2 Alert and Notification System Evaluation (71114.02)

a. Inspection Scope

The inspectors reviewed documents and conducted discussions with Emergency Preparedness (EP) staff and management regarding the operation, maintenance, and periodic testing of the Alert and Notification System (ANS) in the D. C. Cook Nuclear Power Plant's plume pathway Emergency Planning Zone. The inspectors reviewed monthly trend reports and the daily and monthly operability records from July 2008 through August 2010. Information gathered during document reviews and interviews

was used to determine whether the ANS equipment was maintained and tested in accordance with Emergency Plan commitments and procedures. Documents reviewed are listed in the Attachment to this report.

This alert and notification system inspection constituted one sample as defined in IP 71114.02-05.

b. Findings

No findings of significance were identified.

1EP3 Emergency Response Organization Augmentation Testing (71114.03)

a. Inspection Scope

The inspectors reviewed and discussed with plant EP management and staff the emergency plan commitments and procedures that addressed the primary and alternate methods of initiating an Emergency Response Organization (ERO) activation to augment the on shift ERO as well as the provisions for maintaining the station's ERO qualification and team lists. The inspectors reviewed reports and a sample of corrective action program records of unannounced off-hour augmentation tests and pager tests, which were conducted between July 2008 and September 2010, to determine the adequacy of the drill critiques and associated corrective actions. The inspectors also reviewed a sample of the EP training records of approximately 25 ERO personnel, who were assigned to key and support positions, to determine the status of their training as it related to their assigned ERO positions. Documents reviewed are listed in the Attachment to this report.

This emergency response organization augmentation testing inspection constituted one sample as defined in IP 71114.03-05.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies (71114.05)

a. Inspection Scope

The inspectors reviewed a sample of Performance Assessment staff's 2008, 2009, and 2010 audits of the D. C. Cook Nuclear Power Plant's EP program to determine that the independent assessments met the requirements of 10 CFR 50.54(t). The inspectors also reviewed samples of corrective action program records associated with the 2009 biennial exercise, as well as various EP drills conducted in 2008, 2009, and 2010, in order to determine whether the licensee fulfilled drill commitments and to evaluate the licensee's efforts to identify and resolve identified issues. The inspectors reviewed a sample of EP items and corrective actions related to the facility's EP program and activities to determine whether corrective actions were completed in accordance with the site's CAP. Documents reviewed are listed in the Attachment to this report.

This correction of emergency preparedness weaknesses and deficiencies inspection constituted one sample as defined in IP 71114.05-05.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

2RS8 Occupational Dose Assessment (71124.08)

This inspection constituted one complete radioactive solid waste processing and radioactive material handling, storage, and transportation sample as defined in IP 71124.08 05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the solid radioactive waste system description in the updated final safety analysis report (UFSAR), the Process Control Program (PCP), and the recent radiological effluent release report for information on the types, amounts, and processing of radioactive waste disposed.

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

b. Findings

No findings were identified.

.2 Radioactive Material Storage (02.02)

a. Inspection Scope

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

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

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

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

b. Findings

No findings were identified.

.3 Radioactive Waste System Walkdown (02.03)

a. Inspection Scope

The inspectors walked down accessible portions of select radioactive waste processing systems to assess whether the current system configuration and operation agreed with the descriptions in the Updated Final Safety Analysis Report, Off-Site Dose Calculation Manual, and Process Control Program.

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

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

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

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

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

b. Findings

No findings were identified.

.4 Waste Characterization and Classification (02.04)

a. Inspection Scope

The inspectors selected the following radioactive waste streams for review:

- dry active waste;
- primary resin;
- radwaste demineralizer; and
- primary filters.

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

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

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

b. Findings

No findings were identified.

.5 Shipment Preparation (02.05)

a. Inspection Scope

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

The inspectors observed radiation workers during the conduct of radioactive waste processing and radioactive material shipment preparation and receipt activities. The inspectors assessed whether the shippers were knowledgeable of the shipping

regulations and whether shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport with respect to:

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

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

b. Findings

No findings were identified.

.6 Shipping Records (02.06)

a. Inspection Scope

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

- UN 3321; radioactive material, low specific activity (LSA) –II; Class-7; fissile excepted, dry active waste, solid metal oxides in two metal boxes;
- UN 2913; radioactive material; surface contaminated objects (SCO)-II; Class-7; fissile excepted in a metal box;
- UN 2908; radioactive material; excepted package, empty packaging, Class-7; empty fuel canisters from shipment of new fuel to Westinghouse fabrication facilities; and
- UN 2910; limited quantity, radioactive material; Class-7; excepted packaging, limited quantity of material, a scanner instrumentation unit.

Additionally, the inspectors assessed whether the shipment placarding was consistent with the information in the shipping documentation, the licensee shipped mostly LSA-I and LSA-II shipments within the inspection period.

b. Findings

No findings were identified.

.7 Identification and Resolution of Problems (02.07)

a. Inspection Scope

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

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

b. Findings

No findings were identified.

3. OTHER ACTIVITIES

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 2009 through the second quarter 2010. To determine the accuracy of the PI data 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, RCS leakage tracking data, issue reports, event reports and NRC Integrated Inspection Reports for the period of July 1, 2009, to June 30, 2010, to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue 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 reactor coolant system leakage samples as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.2 Drill/Exercise Performance

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill/Exercise Performance PI for the period from the third quarter 2009 through second quarter 2010. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's records associated with the PI to verify that the licensee accurately reported the Drill/Exercise Performance indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI; assessments of PI opportunities during pre-designated control room simulator training sessions, performance during the 2009 biennial exercise, and performance during other drills. Specific documents reviewed are described in the Attachment to this report.

This inspection constitutes one drill/exercise performance sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.3 Emergency Response Organization Drill Participation

a. Inspection Scope

The inspectors sampled licensee submittals for the ERO Drill Participation PI for the period from the third quarter 2009 through second quarter 2010. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's records associated with the PI to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI; performance during the 2009 biennial exercise and other drills; and revisions of the roster of personnel assigned to key emergency response organization positions. Specific documents reviewed are described in the Attachment to this report.

This inspection constitutes one ERO drill participation sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.4 Alert and Notification System

a. Inspection Scope

The inspectors sampled licensee submittals for the ANS PI for the period from the third quarter 2009 through second quarter 2010. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's records associated with the PI to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI and results of periodic ANS operability tests. Specific documents reviewed are described in the Attachment to this report.

This inspection constitutes one alert and notification system sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.5 Radiological Effluent Technical Specification/Off-Site Dose Calculation Manual
Radiological Effluent Occurrences

a. Inspection Scope

The inspectors sampled licensee submittals for the radiological effluent TS/off-site dose calculation manual (RETS/ODCM) radiological effluent occurrences PI for the period from the first quarter 2009 through the third quarter of 2010. The inspectors used PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's issue report database and selected individual reports generated since this indicator was last reviewed to identify any potential occurrences such as unmonitored, uncontrolled, or improperly calculated effluent releases that may have impacted off-site dose. The inspectors reviewed gaseous effluent summary data and the results of associated off-site dose calculations for selected dates between the first quarter 2009 through the third quarter 2010 to determine if indicator results were accurately reported. The inspectors also reviewed the licensee's methods for quantifying gaseous and liquid effluents and determining effluent dose. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one RETS/ODCM radiological effluent occurrences sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.6 Occupational Exposure Control Effectiveness

a. Inspection Scope

The inspectors sampled licensee submittals for the occupational radiological occurrences PI for the period from the first quarter 2009 through the second quarter 2010. The inspectors used PI definitions and guidance contained in the Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, dated October 2009 to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's assessment of the PI for occupational radiation safety to determine if indicator related data was adequately assessed and reported. To assess the adequacy of the licensee's PI data collection and analyses, the inspectors discussed with radiation protection staff, the scope and breadth of its data review and the results of those reviews. The inspectors independently reviewed electronic personal dosimetry dose rate and accumulated dose alarm and dose reports and the dose assignments for any intakes that occurred during the time period reviewed to determine if there were potentially unrecognized occurrences. The inspectors also conducted walkdowns of numerous locked high and very high radiation area entrances specifically in the radwaste areas to determine the adequacy of the controls in place for these areas. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one Occupational Radiological occurrences sample as defined in IP 71151-05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

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

.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 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: 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 of significance were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

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

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

b. Findings

No findings of significance were identified.

.3 Annual Sample: Review of Operator Workarounds

a. Inspection Scope

The inspectors evaluated the licensee's implementation of their process used to identify, document, track, and resolve operational challenges. Inspection activities included, but were not limited to, reviewing the cumulative effects of workarounds on system availability and the potential for improper system operation, for potential impacts on multiple systems, and on the ability of operators to respond to plant transients or accidents.

The inspectors performed a review of the cumulative effects of operator workarounds. The documents listed in the Attachment were reviewed to accomplish the objectives of the inspection procedure. The inspectors reviewed both current and historical operational challenge records to determine whether the licensee was identifying operator challenges at an appropriate threshold, had entered them into their CAP and proposed or implemented appropriate and timely corrective actions, which addressed each issue. Reviews were conducted to determine if any operator challenge could increase the possibility of an Initiating Event, if the challenge was contrary to training, required a change from long-standing operational practices, or created the potential for inappropriate compensatory actions. Additionally, all temporary modifications were reviewed to identify any potential effect on the functionality of Mitigating Systems, impaired access to equipment, or required equipment uses for which the equipment was

not designed. Daily plant and equipment status logs, degraded instrument logs, and operator aids or tools being used to compensate for material deficiencies were also assessed to identify any potential sources of unidentified operator workarounds.

This review constituted one operator workaround annual inspection sample as defined in IP 71152-05.

b. Findings

No findings of significance were identified.

.4 Selected Issue Follow-Up Inspection associated with Temporary Instruction 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems": Action Request 2010-8851, Air/Gas Void Identified in Piping Around High Point Vent 1-RHR-152

a. Inspection Scope and Documentation

During a review of items entered in the licensee's CAP, the inspectors recognized a corrective action item documenting an air/gas void in the Unit 1 safety injection pump suction header piping near the high point vent valve. The licensee identified the air/gas while performing a routine ultrasonic test examination in accordance with the Gas Accumulation Condition Monitoring Program. Subsequent licensee evaluation determined that operability of the safety injection system was not impacted by the presence of the air/gas void. The inspectors noted that corrective actions did include venting and filling the system and revising the procedure used for removing the residual heat removal system from service to prevent recurrence.

The inspectors verified that the selected CAP entry acceptably addressed the areas of concern associated with the scope of GL 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," (TI 2515/177, Section 04.01).

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05. In addition, this inspection effort counts towards the completion of TI 2515/177 which will be closed in a later Inspection Report.

b. Findings

No findings of significance were identified.

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

.1 Personnel Performance During a Planned Non-Routine Evolution

a. Inspection Scope

On August 6, 2010, the inspectors observed the licensee perform Unit 1 and Unit 2 main generator reactive capability testing. The inspectors evaluated operator performance and determined that the operator response was appropriate and in accordance with procedures and training.

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

b. Findings

No findings of significance were identified.

.2 (Closed) Licensee Event Report 05000315/2010-001-00: 1AB Emergency Diesel Generator Fuel Oil Transfer Pumps Inoperable

This event, which occurred on April 8, 2010, and was identified at a later date, resulted in the Unit 1 AB emergency diesel generator (EDG) being in an unrecognized inoperable and unavailable condition. On April 23, 2010, with Unit 1 in Mode 1, (Power Operation) the licensee was performing planned surveillance testing on the 1AB EDG when fuel oil transfer pump 1-AB-1 attempted to automatically start, as designed, due to lowering level in the fuel oil day tank. During the attempted start, the associated supply breaker tripped and was damaged. The licensee declared the 1AB EDG inoperable and entered the TS 3.8.1 required action to restore the EDG to operable status within 14 days.

The licensee initiated a failure investigation team, which identified that during previous planned maintenance activities, licensee personnel had failed to positively identify a power cable for Unit 1 AB EDG fuel oil transfer pump 1-AB-2 while implementing a work order to remove and replace the power cable. Consequently, on April 8, 2010, the power cable for fuel oil transfer pump 1-AB-1 was mistakenly cut instead of the power cable for pump 1-AB-2. Because fuel oil transfer pump 1-AB-2 was already unavailable due to maintenance work, cutting the 1-AB-1 pump power cable left both 1AB EDG fuel oil pumps unavailable, which unknowingly rendered the Unit 1 AB EDG inoperable and unavailable.

The licensee's corrective actions included replacing the affected breaker and power cable; installing more easily identifiable labels on the fuel oil transfer pump cables, conduit, and pull box; revising the inaccurate electrical drawings that contributed to the event; and developing electrical maintenance techniques for use in the field to positively identify cables prior to cutting or pulling. This issue was documented in Section 4OA2 of Inspection Report 2010003 as a finding of very low safety significance (Green) with an associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings." The inspectors reviewed control room logs, condition reports, procedures, causal analysis, and corrective actions and did not identify any additional findings of significance. Documents reviewed as part of this inspection are listed in the attachment. This Licensee Event Report (LER) is closed.

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

.3 (Closed) Licensee Event Report 05000315/2010-002-00: Manual Auxiliary Feedwater Actuation in Response to Main Feedpump Failure

This event, which occurred on May 2, 2010, resulted in the control room operators manually tripping a nonsafety-related Unit 1 east main feedwater pump and subsequently initiating auxiliary feedwater. On May 2, while at 98 percent power, the control room received indications of Unit 1 east main feedwater pump high thrust bearing temperature and high vibrations. In response, control room operators tripped the pump, and in accordance with procedures, initiated auxiliary feedwater flow to supplement the

remaining main feedwater pump. The licensee's investigation revealed that a disruption in lubrication oil supply to the thrust bearing had led to the pump's ultimate failure.

The licensee's corrective actions included disassembly, inspections and repairs to the Unit 1 east main feedwater pump; replacing the failed bearing and bearing housing; installing a braided metal supply hose to replace the installed rubber lube oil supply hose that was found to be old, brittle, and a potential contributor to the event; flushing the pump lubrication oil system; inspecting the remaining Unit 1 and Unit 2 main feedwater pumps to identify whether rubber lubrication oil supply hoses were installed, to allow for similar replacements to be made; and identifying and replacing additional rubber hoses installed on the main feedwater pumps. The inspectors reviewed control room logs, condition reports, procedures, causal analysis, and corrective actions and did not identify any findings of significance. Documents reviewed as part of this inspection are listed in the attachment. This LER is closed.

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

4OA5 Other Activities

.1 (Open) NRC Temporary Instruction 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems (NRC Generic Letter 2008-01)"

As documented in Section 1R04, 1R22 and 4OA2, the inspectors confirmed that the described licensee's actions were acceptable. This inspection effort counts towards the completion of TI 2515/177 which will be closed in a later Inspection Report.

4OA6 Management Meetings

.1 Exit Meeting Summary

On October 13, 2010, the inspectors presented the inspection results to Mr. J. Gebbie, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

.2 Interim Exit Meetings

Interim exits were conducted for:

- The results of the Emergency Preparedness program inspection with Mr. J. Gebbie on September 17, 2010.
- The radioactive solid waste processing and radioactive material handling, storage, and transportation inspection, which included evaluating the radiological effluent TS/off site dose calculation manual radiological effluent occurrences and occupational control effectiveness performance indicators with Mr. J. Gebbie, Site Vice President on August 13, 2010.

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

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

S. Bell, Radiation Protection Engineer
T. Brown, Director of Projects
G. Brumbelow, Emergency Preparedness Coordinator
J. Calhoun, Emergency Preparedness Coordinator
M. Carlson, Vice President Site Support Services
B. Chambers, Emergency Preparedness Manager
D. Frie, Emergency Preparedness Coordinator
J. Gebbie, Site Vice President
C. Hutchinson, Director of Nuclear Site Services
Q. Lies, Plant Manager
M. McLean, Radiation Protection
C. Moeller, Radiation protection manager
J. Nimitz, Regulatory Affairs Senior Licensing Activities Coordinator
K. O'Connor, Regulatory Affairs Compliance Manager
J. Ross, Director of Operations
R. West, Regulatory Affairs Licensing Activity Coordinator
T. Woods, Performance Assessment Manager

Nuclear Regulatory Commission

J. Cameron, Chief, Reactor Projects Branch 6/DRP/RIII
B. Dickson, Chief, Plant Support Team, DRS/RIII

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

NONE

Closed

05000315/2010-001-00	LER	1AB Emergency Diesel Generator Fuel Oil Transfer Pumps Inoperable
05000315/2010-002-00	LER	Manual Auxiliary Feedwater Actuation in Response to Main Feedpump Failure

Discussed

NONE

LIST OF DOCUMENTS REVIEWED

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

1R01 Adverse Weather Protection

- AR 00068710, NRC Identified Loose Debris in Switchyard
- AR 00078156, Issues Identified by NRC Resident During Tour of Switchyard
- AR 00851559, Loose Material and Debris in 765 kV Switchyard
- AR 2010-9008, Housekeeping Issue—Empty Pallet Stored in Switchyard
- PMP-5055-SWM-001, Severe Weather Guidelines, Revision 1

1R04 Equipment Alignment

- 12-EHP 5040.PWD.001 Data Sheet 2, Field Data Walkdown Gas Accumulation Report Attachment 1, Pages 67-94, September 19, 2008
- 1-OHP-4021-008-002, Placing the Emergency Core Cooling System in Standby Readiness, Revision 25
- 2-OHP-4021-032-008CD, Operating DG2CD Subsystems, Revision 10
- 2-RH-18, RHR Spray Flow Header Isometric Diagram, Revision 18
- AR 00836480, N Train Battery UV with Train B Charger In Service
- AR 00836505, Cell #105 Has Foreign Material Inside Top of Cell
- AR 00839501, RHR Supplemental Spray Pipe Slope
- AR 00841751, New 0-72 Battery Charger Time was Defective
- AR 00844160, Cell 38 Below Tech Spec Requirements
- AR 00860231, Battery Charger Float/Equalizer Setting Discrepancies
- AR 00884405, U1 N-Train Battery Cells Have Cracked Terminal Bushings
- AR 2010-8238, 2-BATT-N Battery Cell Specific Gravity Adjust
- AR 2010-8491, Unit 2 AB Diesel Pipe Support Missing Bolt
- AR 2010-8670, New Safety Valve Installed in Plant Chatters
- DB-12-250V, Design Basis Document For The 250V DC System, Revision 1
- OP-1-12003-33, 250V DC Main One-Line Diagram Engineered Safety System, Revision 33
- OP-1-5143, Flow Diagram Emergency Core Cooling (RHR) Unit 1, Revision 74
- PMP-4030-001-001, Impact of Safety Related Ventilation on the Operability of Technical Specification Equipment, Revision 9
- Technical Data Book 2-Figure-19.9, Emergency Diesel Generator Pot Settings, Revision 52
- Unit 1 250V DC Distribution System Health and Status Reports, 1st Quarter 2010

1R05 Fire Protection

- 12-FPP-2270-066-011, Fire Watch Activities, September 3, 2010
- AR 2010-10200, FPPM Revision 11 Administrative Discrepancy Section 8.2.3.1
- AR 2010-7520, Fire Pre-Plans, Volume 1 Discrepancies
- AR 2010-8422, Bus Ground
- AR 2010-8424, Fire Pump House Smoke Investigation

- AR 2010-8467, Breaker from 12-DFPWS-8 Damaged
- AR 2010-8972, 2-DR-AUX386
- AR 2010-9142, Fire Protection Line Disconnected From Pipe Hanger
- AR 2010-9368, 2-DR-Aux-386, is Intermittently not Latching Properly
- Fire Hazards Analysis, Revision 14
- Fire Pre- Plan, Revision 7
- Fire Protection Program Manual, Revision 11
- PMP-2270-CCM-001, Control of Combustible Materials, Revision 7

1R06 Flooding

- AR 00859564, Lack of Follow-thru on Previous CRA, Identified by Senior Resident
- AR 2010-6317, 8 Inches of Water Found in 4kV Manhole MH1PA
- AR 2010-7729, Water Was Found in Manhole MH1PB
- AR 2010-7741, Water Found in Manhole MH1PD
- AR 2010-7743, Water in Manhole MH1PA
- AR 2010-8501, Changes to Cable Vault Inspections Required
- AR 2010-8524, Continued Trend of Water in Manholes
- WO 55365523-01, Performance of 4kV -34.5kV Manhole Inspections, June 29, 2010
- WO 55367246-01, Performance of 4kV -34.5kV Manhole Inspections, August 3, 2010
- WO 55367541-01, Performance of 4kV MH1PA Manhole Inspections, August 3, 2010

1R11 Licensed Operator Regualification Program

- 2-OHP-4023-ECA-1.3, Sump Blockage Control Room Procedure, Revision 3
- AR 00821876, Training Request for Clarification on E-Plan Classification
- RQ-E-3504A, Cycle 3504 As Found Simulator Evaluation A, Revision 1

1R12 Maintenance Effectiveness

- 12-EHP-5035-MRP-001, Maintenance Rule Program Administration, Revision 19
- AR 00810230, Present RCS-01 MPFF to Expert Panel for a(1) Consideration
- AR 00825531, The Piping Does Not Meet the Design Basis Requirement
- AR 00830610, Thru Wall Leak on Piping Upstream of 1-NFP-222-V2
- AR 00830617, Boric Acid Leak on 1-NPI-110
- AR 00831287, Unit 2 West CCW Pump Cavitation
- AR 00832081, Evaluate Test Results
- AR 00840163, High Fatigue Usage of Surge Line Nozzle at RCS Loop 3
- AR 00842145, CCW Piping Calc Discrepancy in Use of Seismic Spectra & SAM
- Component Cooling Water (a)(1) Action Plan, February 19, 2009
- Component Cooling Water Maintenance Rule Scoping Document, Revision 1
- Component Cooling Water System Maintenance Rule (a)(1) Action Plan, Revision 0
- GT 00082263, O&MR 424. Small Bore Piping Connection Failures
- List of ARs, GTs, and Work Orders Generated for RCS Unit 1, September 13, 2008 – September 13, 2010
- Maintenance Rule a(1) Action Plan for Unit 1 Reactor Coolant System maintenance rule functional failure—Section II
- Maintenance Rule a(1) Action Plan—Return to (a)(2) Status for Unit 1 Reactor Coolant System maintenance rule functional failure—Section III, September 2010
- Maintenance Rule a(1) Consideration for Unit 1 Reactor Coolant System maintenance rule functional failure—Section I

- OP-1-5135E-6, Flow Diagram CCW Misc. Services Penetration Cooling
- PMI-5035, Maintenance Rule Program, Rev 13
- PMP-5035-MRP-001, Maintenance Rule Program Administration, Revision 13
- Reactor Coolant System Maintenance Rule Scoping Document, Revision 4
- System Health and Status: Reactor Coolant System, Unit 1, April 1, 2010 – June 30, 2010
- System Health and Status: Reactor Coolant System, Unit 2, April 1, 2010 – June 30, 2010
- Unit 1 Component Cooling Water System Health and Status Report, 2008-2010
- WO 55318149, 1-CRV-470 Not Controlling in Auto, May 9, 2008
- WO 55319077, Unit 2 West CCW Pump Cavitation, September 14, 2009
- WO 55320284, U-2 Perform VT-1 & Weld Sizing Examination on RCS Small Bore, July 24, 2010
- WO 55320295, U-1 Perform Vibration Testing in RCS Small Bore Piping, March 6, 2010
- WO 55328575, Perform Vibration Testing in RCS Small Bore Piping for U2, July 24, 2010
- WO 55360694, Valve 1-CCW-244-25 Failed As-Left LLRT, April 2, 2010

1R13 Maintenance Risk Assessments and Emergent Work Control

- AR 2010-6815, Plant Air Compressor Surge
- AR 2010-6901, Unit 2 Plant Air Compressor Underwent Surge
- AR 2010-8108, Maintenance Rule Risk Assessment not Updated When Plant Air Compressor Tagged Out
- AR 2010-9735, 2AB Emergency Diesel Generator Surveillance Suspended due to Weather
- Control Room Logs, July 14-15, July 26-28, August 2-4, September 20-23
- Daily work activity schedule, July 14-15, July 26-28, August 2-4, September 20-23
- PMP-2291-OLR-001, Online Risk Management, Unit 1 and Unit 2 Part 1 Configuration Risk Assessment, July 14-15, July 26-28, August 2-4,
- September 20-23 PMP-5055-SWM-001, Sever Weather Guidelines, Revision 1

1R15 Operability Evaluations

- 1 -2-UJNC-203 CALC2, Pressurizer Level Loop Uncertainty Calculation, Revision 2
- 12-THP-6020-PAS-003, Post Accident Containment Hydrogen Monitoring System Operation, Revision 9
- AR 00854207, Unit 2 Pressurizer Level Indication Reading High
- AR 00856011, 2-HV-ACR-DA-2A Bumped in August 2009
- AR 2010-3532, Transformer 201AB Neutral/Ground Over Current Fault
- AR 2010-6902, 1-CRDMC-1N Grease Slinging Off Shaft
- DB-12-HVCR, Design Basis Document for the Control Room Ventilation System, Revision 1
- EC 49022, Foxboro Transmitter 2-NLP-152 and 2-NPP-152 Replacement, Revision 0
- Letter to Indiana Michigan Power Company, Confirmatory Order Modifying Post-TMI Requirements Pertaining to Containment Hydrogen Monitors, February 4, 2000
- OP-2-5141D, Flow Diagram, Post Accident Containment Hydrogen Unit 2, Revision 18
- PMP-7030-OPR-001, Operability Determination, Revision 017

1R19 Post-Maintenance Testing

- 12-IHP-6030-IMP-317, Emergency Diesel Generator Electronic Over Speed Indication and Trip Calibration, August 2, 2010
- 2-OHP-4030-203-052W, West Centrifugal Charging Pump Operability Test, Revision 11
- 2-OHP-4030-214-011, Containment Isolation and IST Valve Operability Test Attachment 6, September 29, 2010

- 2-OHP-4030-232-027AB, AB Diesel Generator Operability Test, July 28, 2010
- 2-OHP-4030-232-027CD, CD Diesel Generator Operability Test, August 3, 2010
- AR 2010-7003, Unit 2 CDDG Tempering Dampers Not Functioning Properly
- AR 2010-7712, Calibration of 2 CD Over Speed Indication Running Low
- AR 2010-7856, Completion Notes Were Blank in INDUS for PMTs
- OP-12-5137A-30, Flow Diagram Waste Disposal System Vents and Drains Unit 1 and 2, Revision 30
- OP-2-98033, Diesel Generator 2CD Excitation and Regulation and Miscellaneous Elementary Diagram, Revision 47
- OP-2-98035, Diesel Generator 2CD Control Elementary Diagram, Revision 37
- WO 55357430-05, West Centrifugal Charging Pump PMT Leak Inspection, July 22, 2010
- WO 55356495-06, Control Air Dryer Check Valves PMT, August 3, 2010
- Tech Data Book Figure 2-19.1, Power Operated Valve Stroke Time Limits, July 7, 2010
- WO 55357430-04, 2-LPI-275, Calibrate, and if Necessary Replace, July 22, 2010
- WO 55364730, Oil Leaks From Fittings on West CCP, July 22, 2010
- WO 55263789-01, Replace Solenoid Valve 2-LSO-240, July 28, 2010
- WO 55363790-01, Replace Solenoid Valve 2-LSO-241, July 28, 2010
- 2-OHP-4021-032-001CD, DG2CD Operation, August 3, 2010
- WO 55232067-02, Jacket Water Surge Tank Float Valve PMT, August 3, 2010
- WO 55367795-02, U2 CD EDG Over Speed Cal As-Left, August 4, 2010

1R22 Surveillance Testing

- 12-EHP-4030-002-307, Moderator Temperature Coefficient Determination, August 2, 2010
- 12-EHP-5077-001-001, Control Room Envelope Habitability Program Implementation, Revision 0
- 12-QHP-5050-NDE-025, Ultrasonic Examination for Identifying Sediment and Air/Gas Voids in Piping Systems, Revision 2
- 1-EHP-4030-128-230, Unit 1 Control Room Tracer Gas Test, Revision 2
- 1-OHP-4030-112-015, Full Length Control Rod Operability Test, July 15, 2010
- 1-OHP-4030-151-018, Steam Generator Stop Valve Dump Valve Surveillance Test, August 27, 2010
- 2-SI-42, Auxiliary Bldg Safety Injection Piping Elevation Drawing, Revision 20
- ANSI/ANS-19.11-1997, Calculation and Measurement of the Moderator Temperature Coefficient of Reactivity for Water Moderated Power Reactors
- AR 00830557, Discovered Containment Isolation Valve Past Drop Dead
- AR 00842084, Request Review of Potential Component Preconditioning
- AR 00849755, Revise Technical Specification Bases 3.5.5
- AR 00850713, CCW Flow Balance Performance Frequency
- AR 00852031, Surveillance Acceptance Criteria Not Met
- AR 05275004, STP Status Summary Not Accurate
- AR 2010-7001, Tave Feedback During Rod Test >.3F From Expected
- AR 2010-7918, Initial Conditions Not Met for MTC Testing
- AR 2010-8066, Incorrect Damper Line-up in Tracer Gas Test Procedure
- AR 2010-8069, Air Leaking Past Control Room Dampers
- AR 2010-8323, Procedure Use and Adherence
- AR 2010-8365, Error Causes Rework for Engineering Surveillance Procedure
- EHI-5077, Control Room Envelope Habitability Program, Revision 0
- EHI-5202, Gas Accumulation Condition Monitoring Program, Revision 0
- WO 55360365-01, Perform UT on safety injection piping near high point vent valve 2-SI-120S, September 22, 2010.

1EP2 Alert and Notification (ANS) Evaluation

- D. C. Cook Nuclear Plant Alert & Notification System Final Design Report
- D. C. Cook Nuclear Plant Emergency Plan, Section E, Notification Methods and Procedures, Revision 28
- EPP-2080-ANS-001, Alert and Notification System Operation, Revision 7
- PMP-2080-EPE-001, Emergency Preparedness Equipment Maintenance Records,
- AR 10004017, Ice Found in ANS Siren Heads
- AR 2010-6517, June 2010 News Media Radio Test Results
- AR 09071019, Inadvertent Deactivation of Two Warren Dunes Park Sirens

1EP3 Emergency Response Organization Augmentation Testing

- 1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies
- AR 00852206, Inefficient Distribution of EP Information to Transient Population
- AR 00854830, Missed Drill and Exercise Performance Opportunities
- AR 09198032, RMT-2080-OSC-001 Checklist Does Not Match EPlan Table 1 Staffing for Radiological Emergencies for Radiation Protection Technicians
- AR 09226040, ERO Dress Rehearsal Issue Regarding KI Administration
- AR 2010-3149, RTO Member Respirator Qualification Expired
- AR 2010-5707, Inadequate Inter-Facility Communications during EP Drill
- AR 2010-6450, Unannounced Drill to Evaluate RP Techs for ERO Positions
- AR 2010-8333, Cook Emergency Plan Change Not Properly Controlled
- AR 2010-8333, Cook Emergency Plan Not Properly Controlled Via CFR 50.54(q)
- AR 00838857, Evaluation of September 20, 2008, Declared Unusual Event
- AR 00839901, Evaluate September 20, 2008, Emergency Response Issues
- AR 00849555, Dose Assessment Program Problems
- GT 00844175, Off Hours Unannounced Notification Drill
- D. C. Cook Emergency Plan, Section J, Protective Response, Revision 26
- D. C. Cook ERO Duty Team Roster
- D. C. Cook Nuclear Plant Emergency Plan, Section B, Emergency Response Organization, Revision 28
- D. C. Cook Nuclear Plant Emergency Plan, Section N, Exercises and Drills, Revision 28
- Emergency Preparedness Unannounced Semiannual Augmentation Drill Reports, March 2008 – June 2010
- PMP-2080-EPP-100, Accountability, Revision 13
- PMP-2080-EPP-100, Emergency Response, Revision 19
- PMP-2080-EPP-500, Emergency Preparedness Drills and Exercises, Revision 0
- TPD-600-EPT, Emergency Preparedness Training Program Description, Revision 18
- D. C. Cook September 20, 2008, Unusual Event Report
- D. C. Cook June 23, 2010, Unusual Event Report
- PA-08-07, Performance Assurance Emergency Preparedness Audit, September 5, 2008
- PA-09-05, Performance Assurance Emergency Preparedness Audit, September 10, 2010
- PA-10-05, Performance Assurance Emergency Preparedness Audit, July 29, 2010

2RS8 Occupational Dose Assessment

- 12THP-6010-Rpp-007, Radiation Protection Calculation and Technical Bases Documents Per Part-61 Analysis, April 29, 2009
- 12-THP-6010-RPP-407, Special Radiological Evolution, Revision No. 23
- 12-THP-6010-RPP-900, Preparation of Radioactive Shipments, Revision No. 24

- 12-THP-6010-RPP-901, Resin Transfer to Qualified Shipping Container, Revision No. 10
- 12-THP-6010-RPP-903, Activity Determination and Waste Classification, Revision No. 6
- 12-THP-6010-RPP-905, Solid Waste/Material Handling and Packaging, Revision No. 13
- 12-THP-6010-RPP-913, Scaling Factor Determination, Revision No. 2
- 12-THP-6010-RPP-915, Setup and Operation of Energy Solution Self-engaging Dewatering System Fillhead, Revision No. 3
- AR-2010-6197, Seavan Containers DegradedDatabase, Annual Inspection of Infrequently Entered Locked High Radiation Areas, December 2007 through December 2009
- D. C Cook Nuclear Plant Units 1 and 2, Annual Radioactive Effluent Release Report, January 1, 2009, Through December 31, 2009
- D. C Cook Nuclear Plant Units 1 and 2, Radiological Environmental Operating Report 2009
- D. C Cook-09-017, UN2915, Radioactive material, Type-A Packaging, Fissile Excepted, Class 7, Radioactive Source in One Metal Box, July 15, 2008
- D. C. Cook-09-052, UN3321, Radioactive Material, LSA-II, Fissile Excepted, dry active waste, July 7, 2009, Shipment of a Shielded Radioactive Shipping Cask Containing High Activity Dry Active Waste
- D. C. Cook-09-064, UN2913, Radioactive Material, SCO-II, Class 7, Fissile excepted, Dry Active Waste , Solid Metal Oxide (2 Metal Boxes), September 22, 2009
- D. C. Cook 09-073, UN3321, Radioactive Material, LSA-II, Class 7, Fissile excepted, Radwaste Resin in High Integrity Container to Studsvik Processing Facility, October 21, 2009
- D. C. Cook -10-004, UN3321, Radioactive Material, LSA-II, Class 7, Fissile excepted, Dry Active Waste , Solid Metal Oxide (2 Metal Boxes), January 12, 2010
- D. C. Cook -10-028, UN3321, Radioactive Material, LSA-II, Class 7, Fissile excepted, Dry Active Waste , Solid Metal Oxide (2 Metal Boxes), March 17, 2010
- D. C. Cook -10-061, UN2908, Radioactive Material, Excepted Packages, Empty Packaging, Class-7 to Westinghouse, August 10, 2010
- D. C. Cook -10-061, UN2908, Radioactive Material, Excepted Packages-Empty Packaging, Class 7, August 8, 2010, Empty Fuel Containers Shipped to Westinghouse Fuel Fabrication Facility
- December 2009 Doses due to Liquid and Gaseous Effluents based on Units 1 and 2 at Mode 1 at 100 percent
- Eberline Radiation Monitoring System and Westinghouse Radiation Monitoring System Component Locator
- ENV-08-081, UN3321, Radioactive Material, LSA-II, Class 7, Fissile Excepted , 20' Sealands, August 29, 2008
- Performance Assurance Audit PA-10-01, Radiation Protection, March 10, 2009
- PMP-6010-OSD-001, Off-Site Dose Calculation Manual, Revision No. 023
- PMP-6010-PCP-900, Radioactive Waste Process Control Program, Revision No. 12
- PMP-6010-PCP-901, Shipment of Radioactive Material and Waste, Revision No. 6
- UN 2908, RAM, Excepted Package, Empty Packaging, Class-7, Empty Fuel Canisters from Shipment of New Fuel to Westinghouse Fabrication Facilities
- UN 2910, Limited Quantity, RAM, Class-7, Excepted Packaging, Limited Quantity of Material, a Scanner Instrumentation Unit
- UN 2913, RAM, Surface Contaminated Objects (SCO)-II, Class-7, Fissile Excepted in a Metal Box,
- UN 3321, Radioactive Material (RAM), Low Specific Activity (LSA) –II, Class-7, Fissile Excepted, dry active waste, Solid Metal Oxides in Two Metal Boxes,
- Updated Final Safety Analysis Report, D.C. Cook Nuclear Plant, Revision No. 22

4OA1 Performance Indicator Verification

- PMP-7110-PIP-001, Reactor Oversight Program Performance Indicators and Monthly Operating Report Data, Unit 1 and 2, 3rd and 4th Quarters, 2009 and 1st and 2nd Quarters 2010 Assessment Periods
- Unit 1 and 2 RCS Leakage PI Summary Reports 3rd and 4th Quarters 2009 and 1st and 2nd Quarters 2010
- EPP-2080-ERO-300, NRC EP Performance Indicators, Revision 0
- AR 00860829, U2 RCS Identified Leak Rate Has Increased
- AR 2010-1985, Root Cause Evaluation on RCP Seal Performance
- AR 2010-9420, Training Initial Notification Form Was Not Accurate
- AR 2010-6934, ANS Siren 952 Did Not Respond to Silent Test Signal
- AR 09286057, Errors in Data Provided for NRC DEP Performance Indicator
- AR 09134065, Reactor Oversight Process DEP Indicator Trending Down
- AR 00854736, July Drill Errors on Notification Form
- PMP-7110-PIP-001, Reactor Oversight Program Performance Indicators and Monthly Operating Report Data, Revision No. 13
- PI Summary Paperwork for Doses to the Public due to Liquid and Gaseous Effluents memos from January 2009 Through July 2010 –From E.J. Merchant to J.H. Harner
- Regulatory Oversight Performance Indicator for Occupational Exposure Control Effectiveness from the First Quarter of 2009 Through the Third Quarter of 2010
- Emergency Plan Performance Indicator DEP Data Sheets, July 2009 – June 2010
- Key ERO Personnel and Drill Participation Records, September 2009 – June 2010
- FT 00856871-01, Tracking for ERO 9/1/09 Dress Rehearsal, September 3, 2009
- 1/2-OHP-4030-102-016, Reactor Coolant System Leak Rate Test, August 31, 2010
- ANS February 17, 2010 Scheduled Maintenance Documents, February 23, 2010
- EPP-2080-ANS-001, Alert and Notification System Operation, July 2009 – June 2010
- TRP-2070-TAP-400-OPS, Operations Training Implementation, July 2009 – June 2010

4OA2 Identification and Resolution of Problems

- 1-OHP-4021-017-003, Removing Residual Heat Removal Loop From Service, Revision 12
- 2-OHP-4021-017-003, Removing Residual Heat Removal Loop From Service, Revision 8
- AR 00822216, 2-RH-152, Identified Air/Gas Void in Vicinity of Vent on November 15, 2007
- AR 00851823, 2-RH-152, Identified Air/Gas Void in Vicinity of Vent on May 21, 2009
- AR 00856287, PMP-4010-OWA-001 Enhancement
- AR 00863477, Unit 1 and Unit 2 Plant Air Compressor Oil Cooler Temperature Control Issues
- AR 2010-6065, TR101CD Control Room Indication Abnormal
- PMP-4010-OWA-001, Oversight and Control of Operator Burden, Revision 7
- Unit 1 and Unit 2 Contingency/Compensatory Actions
- Unit 1 and Unit 2 Operator Burden Report, August 24 thru September 27, 2010
- WO 55350993, Perform Ultrasonic Exam Near the Area Around the High Point Vent 1-RH-152, February 25, 2010
- WO 55362699, Perform Ultrasonic Exam Downstream of 1-IMO-340, September 1, 2010
- WO 55363928, Perform Ultrasonic Exam Downstream of 1-IMO-350, September 1, 2010

4OA3 Followup of Events and Notices of Enforcement Discretion

- 12-OHP-SP-308, Main Generator Reactive Capability Test, August 6, 2010
- 1-OHP-4022-055-001, Loss of One Main Feed Pump, Revision 007
- 1-OHP-4024-DCS-MFP, DCS Annunciator Response: Main Feed Pump, Revision 3

- AR 2010-3690, Incorrect Cable Cutting During Work
- AR 2010-4046, Unit 1 East Main Feed Pump Removed From Service
- AR 2010-5301, Inspect & Replace MFP Lube Oil Supply Hoses as Required
- Clearance Package for Work on D/G AB Fuel Oil Transfer Pump No. 2, May 10, 2010
- D. C. Cook Nuclear Plant—Plant Status Report, April 8 2010 – April 9, 2010
- LER 2010-001-00, Docket 050-315, 1AB Emergency Diesel Generator Fuel Oil Transfer Pumps Inoperable, June 18, 2010
- LER 2010-002-00, Docket 050-315, Manual Auxiliary Feedwater Actuation in Response to Main Feedpump Failure, June 23, 2010
- PODE for 1AB EDG Fuel Oil Transfer Pump Cable, May 26, 2010
- Unit 1 Log selected entries, April 8 2010 – April 9, 2010
- Unit 1 Log selected entries, May 2 – 29, 2010
- WO 55360439, Ops 1-OHP-4030-132-027 AB D/G 1AB, April 29, 2010

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
ANS	Alert and Notification System
AR	Action Request
CAP	Corrective Action Program
CFR	Code of Federal Regulations
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
ERO	Emergency Response Organization
IP	Inspection Procedure
kV	Kilovolt
LER	Licensee Event Report
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records System
PI	Performance Indicator
RCS	Reactor Coolant System
RETS/ODCM	Radiological Effluent Technical Specification/Off-site Dose Calculation Manual
RHR	Residual Heat Removal
TI	Temporary Instruction
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
WO	Work Order

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; 05000315/2010004; 05000316/2010004

Dear Mr. Weber:

On September 30, 2010, 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 13, 2010, with Mr. J. Gebbie, Site Vice President, 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/
James L. Cameron, Chief
Branch 6
Division of Reactor Projects

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

Enclosure: Inspection Report 05000315/2010004; 05000316/2010004
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Letter to L. Weber from J. Cameron dated October 25, 2010.

SUBJECT: D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2 INTEGRATED
INSPECTION REPORT; 05000315/2010004; 05000316/2010004

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