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

October 14, 2009

Mr. Joseph Jensen
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; 05000315/2009004; 05000316/2009004

Dear Mr. Jensen:

On September 30, 2009, 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 inspection results, which were discussed on October 5, 2009, with Mr. L. Weber and other members of your staff.

This 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 and its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (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 No. 05000315/2009004; 05000316/2009004
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-315; 50-316
License Nos:	DPR-58; DPR-74
Report Nos.	05000315/2009004; 05000316/2009004
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, 2009
Inspectors:	J. Lennartz, Senior Resident Inspector P. LaFlamme, Resident Inspector J. Ellegood, Senior Resident Inspector, Palisades T. Taylor, Resident Inspector, Palisades W. Jessup, General Engineer T. Go, Health Physicist
Approved by:	J. Cameron, Chief Branch 6 Division of Reactor Projects

Enclosure

TABLE OF CONTENTS

SUMMARY OF FINDINGS

IR 05000315/2009004; 05000316/2009004; 07/01/2009 – 09/30/2009 D.C. Cook Nuclear Power Plant, Units 1 & 2; Routine Integrated Inspection Report

The inspection was conducted by resident and regional inspectors. The report covers a 3-month period of resident inspection. 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 July 2006.

A. NRC-Identified and Self-Revealed Findings

No findings of significance were indentified.

B. Licensee-Identified Violations

No findings of significance were identified.

REPORT DETAILS

Summary of Plant Status

Unit 1 remained in Mode 5, Cold Shutdown, during the entire inspection period.

Unit 2 was at full power when the inspection period began. Operators manually tripped Unit 2 on July 26, 2009, because of a degraded reactor coolant pump seal and subsequently cooled the plant down to Mode 5, Cold Shutdown, to support repair of the seal. After the licensee completed the forced outage maintenance activities, operators completed the Unit 2 reactor startup and synchronized the main generator to the grid on August 8, 2009. Unit 2 reached full power on August 9, 2009, and was at full power when the inspection period ended.

Cornerstone: Initiating Events, Mitigating Systems, and Barrier Integrity

1. REACTOR SAFETY

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 2 CD Emergency Diesel Generator
- Unit 2 East Motor Driven Auxiliary Feed Pump and Turbine Driven Auxiliary Feed Pump
- Unit 1/2 Supplemental Diesel Generators

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 corrective action program (CAP) with the appropriate significance characterization. Documents reviewed are listed in the Attachment.

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

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

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:

- Unit 1 residual heat removal pump rooms, Fire Zones 1C and 1D
- Unit 1/2 Auxiliary Building 573 Elevation, Fire Zone 1
- Unit 2 Reactor Cable Tunnel Quadrant 4, Fire Zone 26
- Unit 2 CD Emergency Diesel Generator Room, Fire Zone 18
- Unit 2 Safety Injection Pump Rooms, Fire Zones 65A and 65B
- Unit 1 Reactor Cable Tunnel Quadrant 1, Fire Zone 7

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 plant procedures, 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)

.1 Internal Flooding

a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and abnormal operating procedures to identify licensee commitments. The specific documents reviewed are listed in the Attachment to this report. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or misalignment of nearby sources of water. The inspectors also 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. The inspectors performed a walkdown to assess the design ratings of equipment required for safe shutdown, verify drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments in the following plant areas:

- Unit 1 and Unit 2 Refueling Water Storage Tank and Condensate Storage Tank Pipe Tunnels

This inspection constituted one internal flooding sample as defined in IP 71111.06-05.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On July 28, 2009, 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 one quarterly licensed operator requalification program sample as defined in IP 71111.11.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. Inspection Scope

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

- Unit 1 Control Room Instrumentation Distribution Inverter I
- Unit 2 Control Room Instrumentation Distribution Inverter III
- Unit 2 CD Emergency Diesel Generator

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 three 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 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 during the week of July 7, 2009, which included Unit 2 CD emergency diesel generator fuel injector pump replacements and Unit 1 east motor driven auxiliary feedwater pump preventive maintenance.
- Unit 2 planned maintenance during the week of July 20, 2009, which included AB emergency diesel generator fuel injector pump replacements, and steam generator narrow range level instrument channel operational surveillance tests.
- Planned maintenance during the week of August 23, 2009, which included Unit 1 AB emergency diesel generator fuel injector pump replacements and Unit 2 west motor driven auxiliary feedwater pump preventive maintenance.
- Planned maintenance during the week of September 14, 2009, which included 345 kilo-volt switchyard breaker 52-L-1 inspections, Unit 2 plant air compressor maintenance and Unit 2 east motor driven auxiliary feedwater pump surveillance test.

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. 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 00852061, 2-HV-SGRS-1A Fan Unavailable
- AR 00849236, Change Made to Improved Technical Specification Formula not Captured
- AR 00852905, 2 CD Emergency Diesel Generator Fuel Oil Leak on Fuel Injector Pump 6F

- AR 00854041, 1-WCR-928 Found Assembled Improperly
- AR 00843859, Operation of Unit 2 with the Moisture Separator Re-heaters Out-of-Service

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 also 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 five samples as defined in IP 71111.15-05

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18)

.1 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following temporary modification:

- Unit 1 Fire Damper 1-HV-SGPA-2

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 system The inspectors, as applicable, performed field verifications to ensure that the modification was installed as directed; the modification operated as expected; modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modification did not impact the operability of any interfacing systems. Documents reviewed in the course of this inspection are listed in the Attachment to this document.

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

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 Train A solid state protection system multiplexer test switch replacement
- Unit 1 west essential service water pump replacement
- Unit 1 AB emergency diesel generator fuel injector pump replacement
- Unit 1 source range nuclear instrument N-32 bistable card replacement
- Unit 1 CD emergency diesel generator fuel injector pump 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 five post-maintenance testing samples as defined in IP 71111.19-05.

b. Findings

No findings of significance were identified.

1R20 Outage Activities (71111.20)

.1 Unit 2 Forced Outage

a. Inspection Scope

The inspectors evaluated the Unit 2 forced outage activities that began on July 26, 2009, and continued through August 8, 2009. Unit 2 was manually tripped by control room operators because of a degraded number 1 seal on the 22 reactor coolant pump. The inspectors reviewed and evaluated the conduct of outage activities to ensure that the licensee considered risk in developing, planning, and implementing the outage schedule.

The inspectors observed or reviewed the reactor cooldown, plant equipment configuration and risk management, electrical lineups, control and monitoring of decay heat removal, control of containment activities, startup and heatup activities, and identification and resolution of problems associated with the outage.

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

b. Findings

No findings of significance were identified.

.2 Unit 1 Forced Outage

a. Inspection Scope

Unit 1 was maintained in Mode 5, Cold Shutdown, following the main turbine high vibration event on September 20, 2008. The inspectors conducted outage inspection activities, which included: assessing the licensee's control of plant configuration and management of shutdown risk; reviewing configuration management to verify that the licensee maintained defense-in-depth with respect to shutdown risk; and verified that systems required for decay heat removal were appropriately controlled and maintained. Outage inspection activities will be completed when Unit 1 is returned to service.

An inspection sample was not completed during this inspection period.

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 2 Train A Reactor Trip Breaker Operational Test (Routine)
- Unit 2 Primary to Secondary Leak Rate (Reactor Coolant System leak detection)
- Unit 2 Reactor Coolant Flow Protection Set Channel Operational Test (Routine)
- Unit 1 East Centrifugal Charging Pump In-Service Test (In-Service Test)

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 in-service testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers code, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;
- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted two routine surveillance testing samples, one in-service testing sample, and one reactor coolant system leak detection inspection sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on August 11, 2009, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The

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

This inspection constituted one emergency preparedness drill inspection sample as defined in IP 71114.06-05.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety

2PS3 Radiological Environmental Monitoring Program and Radioactive Material Control Program (71122.03)

.1 Inspection Planning

a. Inspection Scope

The inspectors reviewed the most current Annual Environmental Monitoring Report and licensee assessment results to verify that the Radiological Environmental Monitoring Program (REMP) was implemented as required by TS and the offsite dose calculation manual (ODCM). The inspectors reviewed the report for changes to the ODCM with respect to environmental monitoring; commitments in terms of sampling locations, monitoring and measurement frequencies; land use census; inter-laboratory comparison program; and analysis of data. The inspectors reviewed the ODCM to identify environmental monitoring stations and reviewed licensee self-assessments, audits, licensee event reports, and inter-laboratory comparison program results. The inspectors reviewed the UFSAR for information regarding the environmental monitoring program and meteorological monitoring instrumentation. The inspectors reviewed the scope of the licensee's audit program to verify that it met the requirements of 10 CFR 20.1101(c).

This inspection constituted one sample as defined in IP 71122.03-5.

b. Findings

No findings of significance were identified.

.2 Onsite Inspection

a. Inspection Scope

The inspectors walked-down 100 percent of the air sampling stations and approximately 60 percent of the thermoluminescence dosimeter (TLD) monitoring stations to determine whether they were located as described in the ODCM and to determine the equipment material condition.

This inspection constituted one sample as defined in IP 71122.03-5.

The inspectors observed the collection and preparation of a variety of environmental samples (e.g., ground and surface water, milk, vegetation, sediment, and soil) and verified that environmental sampling was representative of the release pathways as specified in the ODCM and that sampling techniques were in accordance with procedures.

This inspection constituted one sample as defined in IP 71122.03-5.

The inspectors verified that the meteorological instruments were operable, calibrated, and maintained in accordance with guidance contained in the UFSAR, NRC Safety Guide 23, and licensee procedures. The inspectors verified that the meteorological data readout and recording instruments in the control room and at the tower were operable. The inspectors compared readout data (i.e., wind speed, wind direction, and delta temperature) in the control room and at the meteorological tower to identify if there were any line loss differences.

This inspection constituted one sample as defined in IP 71122.03-5.

The inspectors reviewed each event documented in the Annual Environmental Monitoring Report which involved a missed sample, inoperable sampler, lost TLD, or anomalous measurement for the cause and corrective actions and conducted a review of the licensee's assessment of any positive sample results (i.e., licensed radioactive material detected above the lower limits of detection (LLDs). The inspectors reviewed the associated radioactive effluent release data that was the likely source of the released material.

This inspection constituted one sample as defined in IP 71122.03-5.

The inspectors reviewed significant changes made by the licensee to the ODCM as the result of changes to the land census or sampler station modifications since the last inspection. The inspectors reviewed technical justifications for changed sampling locations. The inspectors verified that the licensee performed the reviews required to ensure that the changes did not affect its ability to monitor the impacts of radioactive effluent releases on the environment.

This inspection constituted one sample as defined in IP 71122.03-5.

The inspectors reviewed the calibration and maintenance records for five air samplers and composite water samplers. The inspectors reviewed calibration records for the environmental sample radiation measurement instrumentation. The inspectors verified

that the appropriate detection sensitivities with respect to TS/ODCM were utilized for counting samples (i.e., the samples meet the TS/ODCM required LLDs). The inspectors reviewed quality control charts for maintaining radiation measurement instrument status and actions taken for degrading detector performance.

The inspectors reviewed the results of the REMP sample vendor's quality control program including the inter-laboratory comparison program to verify the adequacy of the vendor's program and the corrective actions for any identified deficiencies. The inspectors reviewed audits and technical evaluations the licensee performed on the vendor's program. The inspectors reviewed the results of the licensee's vendor inter-laboratory comparison program to verify the adequacy of environmental sample analyses performed by the licensee. The inspectors reviewed the licensee's determination of any bias to the data and the overall effect on the REMP. The inspectors reviewed QA audit results of the program to determine whether the licensee met the TS/ODCM requirements.

This inspection constituted one sample as defined in IP 71122.03-5

b. Findings

No findings of significance were identified.

.3 Unrestricted Release of Material from the Radiologically Controlled Area

a. Inspection Scope

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

This inspection constituted one sample as defined in IP 71122.03-5.

The inspectors verified that the radiation monitoring instrumentation was appropriate for the radiation types present and was calibrated with appropriate radiation sources. The inspectors reviewed the licensee's criteria for the survey and release of potentially contaminated material and verified that there was guidance on how to respond to an alarm which indicates the presence of licensed radioactive material. The inspectors reviewed the licensee's equipment to ensure the radiation detection sensitivities were consistent with the NRC guidance contained in IE Circular 81-07 and IE Information Notice 85-92 for surface contamination and HPPOS-221 for volumetrically contaminated material. The inspectors verified that the licensee performed radiation surveys to detect radionuclides that decay via electron capture. The inspectors reviewed the licensee's procedures and records to verify that the radiation detection instrumentation was used at its typical sensitivity level based on appropriate counting parameters (i.e., counting times and background radiation levels). The inspectors verified that the licensee had not established a "release limit" by altering the instrument's typical sensitivity through such methods as raising the energy discriminator level or locating the instrument in a high radiation background area.

This inspection constituted one sample as defined in IP 71122.03-5.

b. Findings

No findings of significance were identified.

.4 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed the licensee's self-assessments, audits, Licensee Event Reports, and special reports related to the radiological environmental monitoring program since the last inspection to determine if identified problems were entered into the CAP for resolution. The inspectors also verified that the licensee's self-assessment program was capable of identifying repetitive deficiencies or significant individual deficiencies in problem identification and resolution.

The inspectors also reviewed corrective action reports from the radioactive effluent treatment and monitoring program since the previous inspection, interviewed staff and reviewed documents to determine if the following activities were being conducted in an effective and timely manner commensurate with their importance to safety and risk:

- initial problem identification, characterization, and tracking;
- disposition of operability/reportability issues;
- evaluation of safety significance/risk and priority for resolution;
- identification of repetitive problems;
- identification of contributing causes;
- identification and implementation of effective corrective actions;
- resolution of non-cited violations tracked in the corrective action system; and
- implementation/consideration of risk significant operational experience feedback.

This inspection constituted one sample as defined in IP 71122.03-5.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

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 both units from the third quarter of 2008 through the second quarter of 2009. 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 5, was used. The inspectors reviewed the licensee's operator logs, RCS

leakage tracking data, condition reports, event reports and NRC Integrated Inspection reports to validate the accuracy of the submittals. The inspectors also reviewed the licensee's condition report database to verify that any problems regarding the PI data had been entered into the licensee's corrective action program with the appropriate characterization and significance.

Documents reviewed are listed in the Attachment to this report.

This inspection constitutes two reactor coolant system leakage samples as defined in Inspection Procedure 71151-05.

.2 Safety System Functional Failures

a. Inspection Scope

The inspectors sampled licensee submittals for the Safety System Functional Failures PI for both units for the period from the first quarter 2008, through the fourth quarter 2008. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in Revision 5 of the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," and NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73" were used. The inspectors reviewed control room logs, action requests, event reports and NRC Inspection Reports from January 1, 2008, through December 31, 2008, to validate the accuracy of the submittals. The inspectors also reviewed the licensee's corrective action program database to verify that any problems regarding the PI data had been entered into the licensee's corrective action program with the appropriate characterization and significance.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted two safety system functional failure samples as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

.3 Radiation Safety Strategic Area

a. Inspection Scope

The Inspectors sampled the licensee's PI submittals for the period indicated below. The inspectors used PI definitions and guidance contained in Revision 5 of NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," to verify the accuracy of the PI data. The following PI was reviewed:

- RETS/ODCM Radiological Effluent Occurrence.

The inspectors reviewed data associated with the RETS/ODCM PI to determine if the indicator was accurately assessed and reported. The inspectors reviewed the licensee's

CAP database and individual CAPs generated in 2008-2009 to identify any potential occurrences such as unmonitored, uncontrolled or improperly calculated effluent releases that may have impacted offsite dose. The inspectors also reviewed gaseous and liquid effluent summary data and the results of associated offsite dose calculations for four-quarter periods in 2008 and one quarter period in 2009 to determine if indicator results were accurately reported. The inspectors also discussed with the licensee the methods for quantifying gaseous and liquid effluents and for determining effluent dose.

These reviews constitute one sample as defined by Inspection Procedure 71151.

b. Findings

No findings of significance 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: the complete and accurate identification of the problem; that timeliness was commensurate with the safety significance; that 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 attached List of Documents Reviewed.

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 Selected Issue Follow-Up Inspection: Root Cause Evaluation

a. Inspection Scope

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

- AR 00846225, Clearance Performance Negative Trend Root Cause Evaluation

The inspectors discussed the evaluations and associated corrective actions with licensee personnel and verified the following attributes during their review of the root cause evaluation:

- complete and accurate identification of the problem in a timely manner commensurate with its safety significance and ease of discovery;
- consideration of the extent of condition, generic implications, common cause and previous occurrences;
- classification and prioritization of the resolution of the problem, commensurate with safety significance;
- identification of the root and contributing causes of the problem; and
- identification of corrective actions, which were appropriately focused to correct the problem.

The above constitutes completion of one in-depth problem identification and resolution sample as defined in IP 71152-05

b. Findings

No findings of significance were identified.

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

.1 Unit 2 Manual Reactor Trip due to a Reactor Coolant Pump Seal Malfunction

a. Inspection Scope

The inspectors responded to the control room and conducted control panel walk downs to verify that plant equipment operated as designed following the manual reactor trip because of a degraded Number 1 seal on 22 reactor coolant pump on July 26, 2009. The inspectors also reviewed control room logs and plant procedures to verify that actions taken by the control room operators in response to the seal malfunction were appropriate. 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 of significance were identified.

4OA5 Other Activities

.1 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted observations of security force personnel and activities to ensure that the activities were consistent with licensee security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings of significance were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On October 5, 2009, the inspectors presented the inspection results to Mr. L. Weber 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 Meeting

An interim exit meeting was conducted for:

- Radiological environmental monitoring program and radioactive material control program inspection and a review of the licensee's public radiation safety performance indicator with Mr. J. Gebbie, Plant Manager, on July 17, 2009.

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

ATTACHMENT: SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

L. Bush, Performance Assurance Manager
D. Foster, Environmental General Supervisor
J. Gebbie, Plant Manager
J. Harris, Radiation Protection Supervisor
R. Hruby, Site Support Services Vice President
C. Hutchinson, Emergency Preparedness Manager
Q. Lies, Engineering Director
C. Moeller, Radiation Protection Manager
J. Newmiller, Licensing Activities Coordinator
J. Nimtz, Licensing Activities Coordinator
J. Ross, Operations Director
P. Schoepf, Manager Nuclear Regulatory Compliance
L. Weber, Site Vice President
R. West, Licensing Activity Coordinator
C. Wohlgamuth, Environmental Supervisor, REMP Coordinator

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

NONE

Closed

NONE

Discussed

NONE

LIST OF DOCUMENTS REVIEWED

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

1R04 Equipment Alignment

- 12-OHP-4021-033-001, Supplemental Diesel Generator Operations, Revision 2
- 2-OHP-4021-032-008CD Operating Diesel Generator 2 CD Subsystems, Revision 9
- 2-OHP-4021-056-001, Filling and Venting Auxiliary Feedwater System, Revision 23
- OP-2-5106A-54, Aux Feedwater Flow Diagram, Revision 54
- AR 00845593, NRC Regulatory Issue Summary 2009-02
- AR 08204053, Emergency Essential Service Water Supply to TDAFP
- AR 09238016, 1-NRI-23 Appears to Have Failed Low
- AR 09240005, 1-HV-AES-2 Flow at Tech Spec Low Limit W/Damper Full Open

1R05 Fire Protection

- 12-FPP-4030-066-204, Fire Detection Instrumentation Channel Operational Test, January 26, 2009
- AR 00845220, South Fire Protection Water Tank is Losing Approximately 1000 gallons an Hour
- Fire Hazards Analysis, Revision 13
- Fire Pre-Plan, Revision 4
- WR 06370792, Fire Link missing on 1-DR-Aux 364

1R06 Flooding

- AR 09203019, Temperature Condition in RWST Pipe Tunnel
- Calculation DCC-PV-12-MC33-N, Determination of Flooding Levels in Unit 1 East Main Steam Enclosure and Fire Zone 33 Due to a Feed Water Line Break, Revision 2
- EHI-5054-IMV, Non-EQ Inaccessible Medium-Voltage Cable Program, Revision 0
- SD-061206-001, Flooding Evaluation Report for D.C. Cook Nuclear Power Plant, Revision 1
- Work Order 55344472, Inspect Medium Voltage Manholes, July 31, 2009

1R11 Licensed Operator Requalification Program

- Crew Periodic Simulator Evaluation, RQ-E-3403A, July 28, 2009
- RQ-E-3403A, Cycle 3403 As Found Simulator Evaluation A, Licensed Operator Requalification, Revision 0

1R12 Maintenance Effectiveness

- 120 Volt Vital/CRID Inverters System Maintenance Rule Scoping Document, April 5, 2001
- AR 00003280, 1 CRID 1 Inverter Was Inadvertently Auto-Transferred
- AR 00806951, CRID 1 Inverter Voltage Low
- AR 00839670, Auto Lockout of 2-CRID-3-INV
- AR 00839701, Unit 2 CRID 3 Unexpected Alarm

- AR 00848430, CRID 3 Inverter Transferred During Loss of AC Power
- AR 00849183, Incorrect Instructions in WOT
- AR 00852784, U-2 CD Diesel Generator Failure During Surveillance Run
- DRN-0025-0148-01, MPR Evaluation of Failed 2-POV-4-CD Copper Air Line from 2CD EDG, July 8, 2009
- Emergency Diesel Generators Maintenance Rule Scoping Document, Revision 2
- Unit 1 Control Room Instrumentation Distribution (CRID) System Health and Status Report, January 1, 2008 through December 31, 2009
- Unit 2 CRID System Health and Status Report, January 1, 2008 through March 31, 2009
- Unit 2 Emergency Diesel Generator System Health and Status Report, 2008/2009
- WO 55289850, Inverter CRID-1-INV MANUAL Bypass Switch Replacement, April 11, 2008
- WO 55309565, 2-CRID-3-INV, Replace Board Mounted Relays, April 4, 2009

1R13 Maintenance Risk Assessments and Emergent Work Control

- 2-OHP-4030-214-021, Event Initiated Surveillances, Data Sheet 20, Inoperable Power Supply, July 7-8, 2009
- Control Room Logs, July 7-9, July 21-23, August 23-26, September 14-18
- PMP-2291-OLR-001, On-Line Risk Management, Unit 2 Part 1 Configuration Risk Assessment, July 7-9, July 21-23, August 23-26, September 14-18
- PMP-4100-SDR-001, Plant Shutdown Safety and Risk Management, Revision 019
- Schedule of daily work activities, July 7-9, July 21-23, August 23-26, September 14-18

1R15 Operability Evaluations

- 12-MHP-5021-001-130, Reverse Acting Air Operated Diaphragm Valve Maintenance, Revision 15
- 1-OHP-4030-103-052L, Controlled Leakage Verification Test, Revision 7
- 2-IHP-4030-250-001, Turbine Impulse Chamber Pressure Protection Set 1 Channel Calibration, Revision 8
- 2-IHP-4030-250-002, Turbine Impulse Chamber Pressure Protection Set 2 Channel Calibration, Revision 8
- 2-OHP-4030-203-052L, Controlled Leakage Verification Test, Revision 7
- OP-2-5148C, Flow Diagram Diesel Generator Area and Electrical Switchgear Rooms Heating and Ventilation System Unit 2, Revision 31
- OP-2-99033-2, Upper and Lower Containment CH 1, 2, 3, and Turbine Impulse CH 1, 2 Pressure Functional Diagram, Revision 2
- PMP-4030-001-001, Impact of Safety Related Ventilation on the Operability of Technical Specification Equipment, Revision 9
- AR 00810402, Found Fuel Oil Leak on Unit 1 AB EDG
- AR 00843859, An ODM is Needed For Possible Operation With the MSRs Out of Service
- AR 00852905, Fuel Oil Leak From 6F Fuel Injector
- AR 00854041, 1-WCR-928 Found Assembled Improperly
- AR 09237054, Incorrect Setup of U2C18 Physics Test Equipment
- DRN-0025-0148-02, Evaluation of Cracked Delivery Valve Holder, July 10, 2009
- MD-12-HV-028-N, Electrical Switchgear Area Environmental Temperature Analysis, Revision 4
- USAR Chapter 5, Containment Isolation System, Revision 22

1R18 Plant Modifications

- 12-IHP-5040-EMP-004, Plant Winterization and De-Winterization, Revision 14
- DB-12-250V, Design Basis Document for the 250V DC System, Revision 1
- PMP 1040.SES.001, 10 CFR 50.59 Safety Screening for CD Battery Ventilation, November 14, 2000
- SD-12-DSLVT-100, System Description for Diesel Generator Area and Electrical Switchgear Rooms, Revision, 0

1R19 Post-Maintenance Testing

- 12-MHP-5021-032-041, EDG Fuel Injection Pump Removal and Installation, August 25, 2009
- 12-MHP-5021-032-041, Emergency Diesel Engine Bendix Fuel Injection Pump Removal and Installation, Revision 7, July 8, 2009
- 1-IHP-4030-SMP-129, Source Range Nuclear Instrumentation Operational Test and Calibration, September 23, 2009
- 1-OHP-4030-119-022W, West Essential Service Water System Test, August 3, 2009
- 2-IHP-4030-STP-510, Train A RPS and ESF Reactor Trip Breaker and SSPS Automatic Trip/Actuation Logic Operational Test, July 31, 2009
- 2-OHP-4030-232-027CD, CD Diesel Generator Operability Test Train A, July 8, 2009
- AR 00852583, Unit 2 SSPS Train A Multiplexer Test Switch is Degraded
- AR 00855690, Boric Acid Transfer Pump PMT did not Include Full Flow Testing
- AR 09178004, Unexpected Control Room Alarm
- AR 09189001, #3FB Fuel Pump Rack Binding
- AR 09189011, 2 CD EDG Would Not Parallel With the System Grid
- AR 09215041, Original Discharge Head Reinstalled on 1-PP-7W
- AR 09236054, Foreign Material Found in Pump Suction of New Pump
- AR 09237002, Failed PMT
- WO 55226340, 1-SV-79-AB2 PMT, August 25, 2009
- WO 55261517, 1-SV-139-AB PMT, August 25, 2009
- WO 55303332, 1-DG-185A PMT, August 25, 2009
- WO 55319074, 1-OME-150-AB-EN PMT, August 25, 2009
- WO 55328635, Replace 1-NRI-32 Bistables with Reworked Circuit Cards, September 23, 2009
- Work Order Package 55344394, Replace Fuel Injection Pumps 1F, 2F, 3R, 3F, and 4R, July 8, 2009
- WR 06370489, Broken Motor Ground Conductor

1R20 Outage Activities

- 2-OHP-4021-001-001, Plant Heatup From Cold Shutdown to Hot Standby, Revision 053
- 2-OHP-4021-001-002, Reactor Start-Up, Revision 040
- 2-OHP-4021-001-004, Plant Cooldown From Hot Standby to Cold Shutdown, Revision 050
- 2-OHP-4021-001-006, Power Escalation, Revision 039
- 2-OHP-4030-001-002, Containment Inspection Tours, July 27, 2009
- 2-OHP-5030-001-002, Outage Risk and Technical Specification Monitoring, Revision 009
- AR 00855201, 2-RHR-100 Will Not Attain Full Closed Status
- AR 00855205, 2-BLP-131 Indicates 10 percent Greater than the Other Instruments
- AR 09210023, PPC Computer Point U2_F04434 Responded Abnormally
- AR 09219030, Lower Than Expected U2 RCS Boron Result
- DIT S-016178-00, Unit 2 Cycle 18 Loss of Reactor Coolant Pump Seal Time-to-Boil Information

- WR 060370561, 2-NRI32 10.24KCPS Preamp as Found out of Tolerance
- WR 06370559, Governor Oil Level on Turbine Driven Auxiliary Feedwater Pump Above Sightglass
- WR 06370623, Rod Bottom Rod Drop Alarm Did Not Clear as Expected

1R22 Surveillance Testing

- 12-THP-4030-002-208, Primary to Secondary Leak Rate, Data Sheet 2, SG Blowdown Primary to Secondary Leak Rate Calculation, August 4, 2009
- 2-IHP-4030-202-021/022/023, Reactor Coolant Flow Protection Set 1, 2, and 3 Channel Operational Test and Calibration, September 1, 2009
- 2-IHP-SP-55334555, Train A Reactor Trip Breaker Operational Test, Revision 0, July 14, 2009
- 2-OHP-4030-202-016, Attachment 1, Reactor Coolant System Leak Rate Test With eDNA Available, August 11, 2009
- 2-OHP-4030-202-016, Attachment 5, Reactor Coolant System Quick Leak Rate, August 7, 2009
- OP-2-98370-6, Solid State Reactor Protection and Safeguard System Tester SW's and Alarm Train A Elementary Diagram, Revision 6
- AR 00852583, Unit 2 Solid State Protection System Multiplexer Test Switch
- AR 09195059, Inadequate Procedure Review
- AR 09223014, U2 RCS Leak Rate Result is Higher than Normal
- AR 09245036, 2-FB-415A Bistable Out of The Allowable Tolerance range
- DIT-S-06177-00, Unit 1 and 2 Reactor SSPS Semi-automatic Tester Test Using Multiplexer Test Switch in the Inhibit Position, June 18th, 2009

1EP6 Drill Evaluation (71114.06)

- AR 00855717, August 11, 2009, Dress Rehearsal Drill 1 for ERO Team 3
- AR 09225048, Unsatisfactory Performance of a Fire Drill
- AR 09225054, TSC Objective Not Met During 8/11/09 ERO Dress Rehearsal
- DC Cook 2009 Dress Rehearsal #1 Exercise Scenario, Exercise Narrative Summary and Timeline
- PMP-2080-EPP-100, Emergency Response, Revision 16
- PMP-2080-EPP-101, Emergency Classification, Revision 12
- RMT-2080-EOF-001, Activation and Operation of the EOF, Revsion 15
- RMT-2080-OSC-001, Activation and Operation of the OSC, Revision 09
- RMT-2080-TSC-001, Activation and Operation of the TSC, Revision 12

2PS3 Radiological Environmental Monitoring Program and Radioactive Material Control Program (71122.03), and Public Radiation Safety Performance Indicator (71151).

- 12-IHP-6030-IMP-333: Meteorological Instrumentation Calibration, January 22, 2008 and 2009
- 12-THP-6010-RPC-514; Calibration of the AVS-28A with the AVT-100 Air Volume Totalizer data, October 13, 2008 through February 06, 2009
- 12-THP-6010-RPP-401; Performance of Radiation and Contamination Surveys; Revision No. 27
- 12-THP-6010-RPP-630: Collection of REMP Surface Water Samples; Revision No. 06
- 12-THP-6010-RPP-632; Collection of Environmental Air Samples; Revision No. 07
- 12-THP-6010-RPP-633; Collection of Environmental Radiation Dosimeters; Revision No. 05
- 12-THP-6010-RPP-642; Collection of Drinking Water Samples; Revision No. 04
- 4AWI-08.04.12; Ground Water Protection Program; Revision No. 0

- Annual Radiological Environmental Operating Report 2008
- AR-00815937; Loss of Power at REMP Air Sample Station ONS-5
- AR-00818197-01; Radiation Protection Comprehensive Assessment Radioactive Material Control
- AR-00826297-03; Self-Assessment due to Recent Contamination Issues in the Auxiliary Building
- AR-00828378; REM Monitoring- Air Sample Low Sample Volume Short by 9 Hours
- AR-00836092; Boxes Stored in Contaminated Equipment Storage Area (CESA) were not Tagged
- AR-00842818-07; Quick Hit Assessment on RAM control focused on Performance
- AR-00843566; TLD Sample Was Not Collected per ODCM from Plowing Activities
- AR-00850045; REMP Monitoring; Low Elapsed Time due Power Failure
- AR-09197012; Options to Improve the Area Surrounding Air Sampling Station ONS-5
- CNP-0907-0086; Cook Nuclear Plant Survey of the Clean Shop, July 16, 2009
- CR-0801; AREVA's Condition Report to Justify New Sources to Increase Calibration Errors to Less than 5 Percent, February 29, 2008
- CR-0819; Analytical First Quarter 2008 Environment Cross Check Mean Result Failed the Bias Criterion for H-3, June 19, 2008
- DC-Cook; Updated Final Safety Analysis Report; Revision No. 22
- EL-048/09; Areva NP Inc., Environmental Laboratory Analytical Services Quarterly Quality Assurance Status Report January – March 2009, May 4, 2009
- February 2008 through April 2009 Doses Reports of DC Cook Unit 1 and 2 Due to Liquid and Gaseous Effluents and PI Summary
- PMP -7110-PIP-001: Reactor Oversight Program Performance Indicators and Monthly Operating Report Data; Revision No. 12
- PMP-6010-OSD-001; Off-Site Dose Calculation Manual; Revision No. 022
- PMP-7110-PIP-001; Reactor Oversight Program Performance Indicators and Monthly Operating Report Data; RETS/ODCM Radiological Effluent Occurrences; Revision No. 10; Quarterly Report from First Quarter 2008 through First Quarter 2009
- REMP 841705-01; Quick Hit Self-Assessment, June 26, 2009
- WO-55328615-01; Radiation Protection Performing Semi-Annual Sweep for RAM, June 19, 2009, and May 05, 2008

<u>4OA1 Performance Indicator Verification</u>

- 2-OHP-4030-102-016, RCS Leak Rate Test, Revision 21
- PMP-7110-PIP-001, Reactor Oversight Program Performance Indicators and Monthly Operating Report Data, Revision 12
- AR 00800109, NRC Safety System Functional Failure Performance Indicator
- AR 00810230, Present RCS-01 MPFF to Expert Panel for A1 Consideration
- AR 00830610, Thru Wall Leak On Piping Upstream of 1-NFP-222-V2
- AR 00856127, Leakage from 2-QRV-303 Caused Abnormally High RCS Leakage
- Licensee Event Reports, January 1, 2008 through December 31, 2008
- NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 5
- Nuclear Energy Institute 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 5
- Selected Operator Logs, July 2008 thru June 2009

4OA2 Identification and Resolution of Problems

- AR 00846225, Root Cause Evaluation, Clearance Performance Negative Trend

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

- 2-OHP-4022-002-001, Malfunction of a Reactor Coolant Pump, Revision 021
- 2-OHP-4023-E-0, Reactor Trip or Safety Injection, Revision 34
- 2-OHP-4023-ES-0-1, Reactor Trip Response, Revision 25
- EN 45228, Reactor Plant Event Notification Worksheet, July 26, 2009

LIST OF ACRONYMS USED

ADAMS	Agency Documents Access and Management System
AR	Action Request
CAP	Corrective Action Program
CFR	Code of Federal Regulations
IP	Inspection Procedure
LLD	Lower Limits of Detection
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
PARS	Publicly Available Records
PI	Performance Indicator
RCS	Reactor Coolant System
REMP	Radiological Environmental Monitoring Program
SSC	Structure System Component
TLD	Thermoluminescence Dosimeter
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
WO	Work Order

Mr. Joseph Jensen
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; 05000315/2009004; 05000316/2009004

Dear Mr. Jensen:

On September 30, 2009, 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 inspection results, which were discussed on October 5, 2009, with Mr. L. Weber and other members of your staff.

This 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 and its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (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 No. 05000315/2009004; 05000316/2009004
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Letter to J. Jensen from J. Cameron dated October 14, 2009

SUBJECT: D. C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2 INTEGRATED INSPECTION REPORT 05000315/2009004; 05000316/2009004

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