



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

December 15, 2009

EA-09-313

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

**SUBJECT: DONALD C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2  
NRC TRIENNIAL FIRE PROTECTION BASELINE INSPECTION  
REPORT 05000315/2009006(DRS); 05000316/2009006(DRS)  
AND EXERCISE OF ENFORCEMENT DISCRETION**

Dear Mr. Jensen:

On November 20, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed a triennial fire protection inspection at your Donald C. Cook Nuclear Power Plant, Units 1 and 2. The enclosed inspection report documents the inspection results, which were discussed on November 20, 2009, with Mr. Larry Webber and other members of your staff.

As a result of your intent to adopt the National Fire Protection Association Standard (NFPA) 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition," as defined by Title 10, Code of Federal Regulations (CFR), Part 50, Section 48(c), the inspection was conducted in accordance with Inspection Procedure (IP) 71111.05TTP, "Fire Protection – NFPA 805 transition Period (Triennial)," dated May 9, 2006. 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 NRC-identified and no self-revealed findings were discovered that involved violations of NRC requirements. However, a licensee-identified violation which was determined to be of very low safety-significance is listed in this report. The licensee-identified finding was not associated with a finding of high safety-significance (Red) and met the four criteria established by Section A of the NRC's Interim Enforcement Policy Regarding Enforcement Discretion for Certain Fire Protection Issues (10 CFR Part 50.48) for a licensee in NFPA 805 transition, including being entered into your corrective action program. The finding also met additional criteria established in Section 12.01.b of Inspection Manual

Chapter (IMC) 0305. Therefore, we are exercising enforcement discretion to not cite this violation in accordance with the NRC's Enforcement Policy. If you disagree with the characterization of this finding, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Donald C. Cook Nuclear Power Station.

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 Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Robert C. Daley, Chief  
Engineering Branch 3  
Division of Reactor Safety

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

Enclosure: Inspection Report 05000315/2009006(DRS); 05000316/2009006(DRS)  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos. 50-315; 50-316

License Nos. DPR-58; DPR-74

Report No: 05000315/2009006(DRS); 05000316/2009006(DRS)

Licensee: Indiana Michigan Power Company

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

Location: Bridgman, MI

Dates: November 2 through November 20, 2009

Inspectors: G. Hausman, Senior Reactor Inspector, Lead  
M. Munir, Reactor Inspector  
B. Winter, Reactor Inspector

Approved by: R. Daley, Chief  
Engineering Branch 3  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 05000315/2009006(DRS); 05000316/2009006(DRS); 11/02/2009 – 11/20/2009; Donald C. Cook Nuclear Power Plant, Units 1 and 2; Routine Triennial Fire Protection Baseline Inspection.

This report covers an announced triennial fire protection baseline inspection. The inspection was conducted by Region III inspectors. Based on the results of this inspection, no NRC-identified and no self-revealed findings of safety-significance were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process (SDP)." Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. 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**

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

No findings and/or violations of safety-significance were identified.

### **B. Licensee-Identified Violations**

A violation of very low safety-significance that was identified by the licensee has been reviewed by inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and corrective action tracking numbers are listed in Section 4OA7 of this report.

## REPORT DETAILS

### 1. REACTOR SAFETY

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

##### 1R05 Fire Protection (71111.05TTP)

Indiana Michigan Power Company, the licensee, in a letter (ML060090370) to the U. S. Nuclear Regulatory Commission (NRC) dated December 28, 2005, committed to adopt the National Fire Protection Association Standard (NFPA) 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition," as defined by 10 CFR 50.48(c) for the Donald C. Cook Nuclear Power Plant. The NFPA 805 standard established a comprehensive set of requirements for fire protection programs at nuclear power plants. The standard incorporated both deterministic and risk-informed, performance-based concepts. The deterministic aspects of the standard are comparable to traditional requirements. However, the transition to a risk-informed, performance-based fire protection program requires an in-depth nuclear safety circuit analysis for equipment identified for nuclear safety functions such as safe-shutdown. Because the conversion and licensing process to NFPA 805 was expected to identify and address a variety of issues that were normally the subject of the triennial fire protection baseline inspection, the NRC modified the fire protection inspection program and Enforcement Policy for licensees in transition to NFPA 805. As a result, this inspection was conducted in accordance with Inspection Procedure (IP) 71111.05TTP, "Fire Protection – NFPA 805 transition Period (Triennial)," dated May 9, 2006. Associated with the transition to NFPA 805, when a certain finding not associated with a finding of high safety-significance meets the four criteria established by Section A of the NRC's Interim Enforcement Policy Regarding Enforcement Discretion for Certain Fire Protection Issues (10 CFR 50.48), the violation would receive enforcement discretion in accordance with the NRC's Enforcement Policy.

The purpose of the fire protection triennial baseline inspection was to conduct a design-based, plant specific, risk-informed, onsite inspection of the licensee's fire protection program's defense-in-depth elements used to mitigate the consequences of a fire. The fire protection program shall extend the concept of defense-in-depth to fire protection in plant areas important to safety by:

- preventing fires from starting;
- rapidly detecting, controlling and extinguishing fires that do occur; and
- providing protection for structures, systems, and components important to safety so that a fire that is not promptly extinguished by fire suppression activities will not prevent the safe-shutdown of the reactor plant.

The inspectors' evaluation focused on the design, operational status, and material condition of the reactor plant's fire protection program and post-fire safe-shutdown systems. The objectives of the inspection were to assess whether the licensee had implemented a fire protection program that: (1) provided adequate controls for combustibles and ignition sources inside the plant; (2) provided adequate fire detection and suppression capability; (3) maintained passive fire protection features in good

material condition; (4) established adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems or features; (5) ensured that procedures, equipment, fire barriers, and systems exist so that the post-fire capability to safely shut down the plant was ensured; (6) included feasible and reliable operator manual actions when appropriate to achieve safe-shutdown; and (7) identified fire protection issues at an appropriate threshold and ensured these issues were entered into the licensee's problem identification and resolution program.

In addition, the inspectors' review and assessment focused on the licensee's post-fire safe-shutdown systems for selected risk-significant fire areas. Inspector emphasis was placed on determining that the post-fire safe-shutdown capability and the fire protection features were maintained free of fire damage to ensure that at least one post-fire safe-shutdown success path was available. The inspection was performed in accordance with the NRC's regulatory oversight process using a risk-informed approach for selecting the fire areas and attributes to be inspected. The inspectors, with assistance from a Senior Reactor Analyst (SRA), used the licensee's Individual Plant Examination for External Events (IPEEE) to select several risk-significant areas for detailed inspection and review. Documents reviewed are listed in the Attachment to this report.

The fire areas and/or fire zones selected for review during this inspection are listed below and constituted five inspection samples as defined in IP 71111.05TTP.

<u>Fire Area</u>	<u>Fire Zone</u>	<u>Description</u>
M	15	Unit 1, 1CD Diesel Generator Room (EL. 587' 0")
EE	29B	Unit 1, Essential Service Water Pump PP-1W (EL. 591'-0")
KK	40A	Unit 1, 4-kV AB Switchgear Room (EL. 609'-6")
MM	42D	Unit 1, EPS (AB) Battery Room (EL. 609'-6")
RR	54	Unit 2, Control Room (EL. 633'-0")

.1 Shutdown from Outside Main Control Room

a. Inspection Scope

The inspectors reviewed the functional requirements identified by the licensee as necessary for achieving and maintaining hot shutdown conditions to ensure that at least one post-fire safe-shutdown success path was available in the event of fire in each of the selected fire areas and for alternative shutdown in the case of control room evacuation. The inspectors reviewed the plant systems required to achieve and maintain post-fire safe-shutdown to determine if the licensee had properly identified the components and systems necessary to achieve and maintain safe-shutdown conditions for each fire area selected for review. Specifically, the review was performed to determine the adequacy of the systems selected for reactivity control, reactor coolant inventory makeup, reactor heat removal, process monitoring, and support system functions. The review also included the fire safe-shutdown analysis to ensure that all

required components in the selected systems were included in the licensee's safe-shutdown analysis.

The inspectors reviewed the licensee's post-fire safe-shutdown analysis, normal and abnormal operating procedures, piping and instrumentation drawings, electrical drawings, their updated final safety analysis report, and other supporting documents to verify that hot and cold shutdown could be achieved and maintained from outside the control room for fires that rely on shutdown from outside the control room. This review included verification that shutdown from outside the control room could be performed both with and without the availability of offsite power.

The inspectors also examined the operators' ability to perform the necessary manual actions for achieving safe-shutdown by reviewing post-fire shutdown procedures, the accessibility of safe-shutdown equipment, and the available time for performing the actions.

The inspectors reviewed the updated final safety analysis report and the licensee's engineering and/or licensing justifications (e.g., NRC guidance documents, license amendments, Technical Specifications, safety evaluation reports, exemptions, and deviations) to determine the licensing basis.

b. Findings

No findings of safety-significance were identified.

.2 Protection of Safe-shutdown Capabilities

a. Inspection Scope

For each of the selected fire areas, the inspectors reviewed the fire hazards analysis, safe-shutdown analysis, and supporting drawings and documentation to verify that safe-shutdown capabilities were properly protected.

The inspectors reviewed the licensee procedures and programs for the control of ignition sources and transient combustibles to assess their effectiveness in preventing fires and in controlling combustible loading within limits established in the fire hazards analysis. The inspectors performed plant walkdowns to verify that protective features were being properly maintained and administrative controls were being implemented.

The inspectors also reviewed the licensee's design control procedures to ensure that the process included appropriate reviews and controls to assess plant changes for any potential adverse impact on the fire protection program and/or post-fire safe-shutdown analysis and procedures.

b. Findings

No findings of safety-significance were identified.

### .3 Passive Fire Protection

#### a. Inspection Scope

For the selected fire areas, the inspectors evaluated the adequacy of fire area barriers, penetration seals, fire doors, electrical raceway fire barriers, and fire rated electrical cables. The inspectors observed the material condition and configuration of the installed barriers, seals, doors, and cables. The inspectors reviewed approved construction details and supporting fire tests. In addition, the inspectors reviewed license documentation, such as NRC safety evaluation reports, and deviations from NRC regulations and NFPA standards to verify that fire protection features met license commitments.

The inspectors walked down accessible portions of the selected fire areas to observe material condition and the adequacy of design of fire area boundaries (including walls, fire doors, and fire dampers) to ensure they were appropriate for the fire hazards in the area.

The inspectors reviewed the installation, repair, and qualification records for a sample of penetration seals to ensure the fill material was of the appropriate fire rating and that the installation met the engineering design.

#### b. Findings

No findings of safety-significance were identified.

### .4 Active Fire Protection

#### a. Inspection Scope

For the selected fire areas, the inspectors evaluated the adequacy of fire suppression and detection systems. The inspectors observed the material condition and configuration of the installed fire detection and suppression systems. The inspectors reviewed design documents and supporting calculations. In addition, the inspectors reviewed license basis documentation, such as, NRC safety evaluation reports, deviations from NRC regulations, and NFPA standards to verify that fire suppression and detection systems met license commitments.

#### b. Findings

No findings of safety-significance were identified.

### .5 Protection from Damage from Fire Suppression Activities

#### a. Inspection Scope

For the selected fire areas, the inspectors verified that redundant trains of systems required for hot shutdown would not be subject to damage from fire suppression activities or from the rupture or inadvertent operation of fire suppression systems including the effects of flooding. The inspectors conducted walkdowns of each of the

selected fire areas to assess conditions such as the adequacy and condition of floor drains, equipment elevations, and spray protection.

b. Findings

No findings of safety-significance were identified.

.6 Alternative Shutdown Capability

a. Inspection Scope

The inspectors reviewed the licensee's systems required to achieve alternative safe-shutdown to determine if the licensee had properly identified the components and systems necessary to achieve and maintain safe-shutdown conditions. The inspectors also focused on the adequacy of the systems to perform reactor pressure control, reactivity control, reactor coolant makeup, decay heat removal, process monitoring, and support system functions.

The inspectors conducted selected area walkdowns to determine if operators could reasonably be expected to perform the alternate safe-shutdown procedure actions and that equipment labeling was consistent with the alternate safe-shutdown procedure. The review also looked at operator training as well as consistency between the operations shutdown procedures and any associated administrative controls.

b. Findings

No findings of safety-significance were identified.

.7 Circuit Analyses

a. Inspection Scope

In accordance with IP 71111.05TTP, "Fire Protection – NFPA 805 Transition Period (Triennial)," dated May 9, 2006, this section of the IP was suspended for facilities in NFPA 805 transition.

b. Findings

No findings of safety-significance were identified.

.8 Communications

a. Inspection Scope

The inspectors reviewed, on a sample basis, the adequacy of the communication system to support plant personnel in the performance of alternative safe-shutdown functions and fire brigade duties. The inspectors verified that plant telephones, page systems, sound powered phones, and radios were available for use and maintained in working order. The inspectors reviewed the electrical power supplies and cable routing for these systems to verify that either the telephones or the radios would remain functional following a fire.

b. Findings

No findings of safety-significance were identified.

.9 Emergency Lighting

a. Inspection Scope

The inspectors performed a plant walkdown of selected areas in which a sample of operator actions would be performed in the performance of alternative safe-shutdown functions. As part of the walkdowns, the inspectors focused on the existence of sufficient emergency lighting for access and egress to areas and for performing necessary equipment operations. The locations and positioning of the emergency lights were observed during the walkdown and during review of manual actions implemented for the selected fire areas.

b. Findings

No findings of safety-significance were identified.

.10 Cold Shutdown Repairs

a. Inspection Scope

The inspectors reviewed the licensee's procedures to determine whether repairs were required to achieve cold shutdown and to verify that dedicated repair procedures, equipment, and material to accomplish those repairs were available onsite. The inspectors also evaluated whether cold shutdown could be achieved within the required time using the licensee's procedures and repair methods. The inspectors also verified that equipment necessary to perform cold shutdown repairs was available onsite and properly staged.

b. Findings

No findings of safety-significance were identified.

.11 Compensatory Measures

a. Inspection Scope

The inspectors conducted a review to verify that compensatory measures were in place for out-of-service, degraded or inoperable fire protection and post-fire safe-shutdown equipment, systems, or features (e.g., detection and suppression systems, and equipment, passive fire barriers, pumps, valves or electrical devices providing safe-shutdown functions or capabilities). The inspectors also conducted a review on the adequacy of short term compensatory measures to compensate for a degraded function or feature until appropriate corrective actions were taken.

b. Findings

No findings of safety-significance were identified.

#### 4. OTHER ACTIVITIES

##### 4OA2 Problem Identification and Resolution (71152)

###### a. Inspection Scope

The inspector reviewed the licensee's corrective action program procedures and samples of corrective action documents to verify that the licensee was identifying issues related to the fire protection program at an appropriate threshold and entering them in the corrective action program. The inspectors reviewed selected samples of condition reports, design packages, and fire protection system non-conformance documents.

###### b. Findings

No findings of safety-significance were identified.

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

###### (Closed)Licensee Event Report (LER) 05000315/2008-002-00: 250Vdc Cable Separation Criteria for 10 CFR Part 50, Appendix R Not Met

This event, which occurred on February 6, 2008, during the licensee's transition to NFPA 805, a finding of nonconformance and a violation of NRC requirements (see Section 4OA7), was discovered by the licensee in their Appendix R fire protection analyses for both units. The finding involved the failure to identify a short section of Train A 250Vdc conduit enclosed cable passing through the Train B 4kV switchgear room. The routing of the unprotected conduit enclosed cable presented a potential fire hazard which, if left unprotected, could disable both the Train B switchgear as-well-as the remote control to the Train A 4kV switchgear due to fire damaged should a fire occur in the Train B 4kV switchgear room. As a result, the licensee issued AR00825805, "Appendix R Compliance for Train B 4kV Room Fire." In addition, compensatory fire watch tours of the affected fire zones were established and remained in effect until permanent corrective actions were implemented. Permanent corrective action included wrapping the conduit with a fire retardant material and converting the CO<sub>2</sub> suppression system from manual to automatic in accordance with the requirements of Appendix R, Section III.G.2.(c). In addition, the applicable design documents were updated to reflect the installed fire protective material.

The inspectors reviewed the licensee's corrective actions for the above described Appendix R nonconformance finding. The inspectors' review of applicable licensee documents showed that the licensee had established compensatory fire watch tours for the affected fire zones and that the fire watch tours remained in effect until permanent corrective actions were implemented. Based on the inspectors' review of applicable modification documents (e.g., EC-48720 and EC-48721) and by independent walkdown observations, the inspectors concluded that the previously unprotected conduit enclosed cable was now wrapped with an appropriate fire retardant material (i.e., 3M™ Interam®) and that the CO<sub>2</sub> suppression system was converted from a manual suppression system to an automatic suppression system to restore conformance with the requirements of 10 CFR Part 50, Appendix R, Paragraph III.G.2(c) requirements and the licensee's original Appendix R Program assumptions. The inspectors concluded that the licensee's corrective actions, both taken and planned, were appropriate and reasonable.

The enforcement aspects of this finding are discussed in Section 4OA7. 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.

#### 4OA6 Management Meetings

##### .1 Exit Meeting Summary

On November 20, 2009, the inspectors presented the inspection results to Mr. Larry Webber 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.

#### 4OA7 Licensee-Identified Violations

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

Title 10 CFR Part 50, Appendix R, requires, in part, that one train of systems necessary to achieve and maintain hot shutdown conditions from either the control room or emergency control station is free of fire damage. On February 6, 2008, the licensee identified an Appendix R non-compliance (see Section 4OA3), where the Train A 4kV switchgear would not be free of fire damage to support safe-shutdown in the unlikely event of a postulated fire in the Train B 4kV switchgear room. The licensee performed a safety-significance evaluation (i.e., PRA Study 054) and determined that the issue was not of high safety-significance (i.e., the event had a  $\Delta$ CDF of 1.93E-7). The inspectors concurred with the overall results of the licensee's evaluation for safety-significance. This finding met the criteria for enforcement discretion under "Interim Enforcement Policy Regarding Enforcement Discretion for Certain Fire Protection Issues (10 CFR 50.48)" published in Federal Register Notices dated June 16, 2004; January 14, 2005; and April 18, 2006. (EA-09-313)

ATTACHMENT: SUPPLEMENTAL INFORMATION

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee

- D. Baker, Mechanical Production Supervisor
- L. Bush, Performance Assurance Manager
- D. Cobb, Operations Fire Protection Manager
- J. Gebbie, Plant Manager
- R. Gray, Design Engineering Mechanical (DEM) Fire Protection Program Manager
- K. Housh, Fire Protection System Manager
- R. Hruby, Site Support Vice President
- D. MacDougall, DEM- Fire Protection
- B. Mammoser, Design Engineering- Mechanical Supervisor
- R. Niedzielski, Regulatory Affairs- Sr. Licensing Coordinator
- K. O'Connor, Design Engineering Manager
- S. Partin, Maintenance Manager
- T. Robinson, Learning Organization Department Corrective Action Program Supervisor
- M. Scarpello, Regulatory Affairs Manager
- L. Webber, Site Vice President
- R. Werdann, Design Engineering Director

Nuclear Regulatory Commission

- R. Daley, Chief, Engineering Branch 3, Division of Reactor Safety
- P. LaFlamme, Resident Inspector
- J. Lennartz, Senior Reactor Inspector

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

Opened

None

Closed

05000315/2008-002-00	LER	250Vdc Cable Separation Criteria for 10 CFR Part 50 Appendix R Not Met
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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 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.

### CALCULATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
MD-12-HV-013-N	Hydrogen Generation Calculation	1
P1900-500-001	Unit 1 – 4kV East (AB Switchgear) Room T11A Switchgear Fire Scenario Analysis	October 15, 2008
TH-04-05	Appendix R RCS Cooldown Analysis Using RETRAN	1

### CORRECTIVE ACTION PROGRAM DOCUMENTS GENERATED DURING INSPECTION

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
AR00860069	FPTI – Unauthorized Tape On FP Wall	November 3, 2009
AR00860231	FPTI – Battery Charger Float/Equalize Setting Discrepancies	November 5, 2009
AR00860260	Pressurizer Heater Procedure Error - FPTI	November 6, 2009
AR00860618	Hot Shutdown Control Described In UFSAR Out-of-Date	November 13, 2009
AR00860766	Component Numbers Not Recorded On EBL Test Datasheet	November 17, 2009
AR00860840	Emergency Lighting Aiming Instructions	November 18, 2009
AR00860896	Discovered Data Sheet with Blank Spot for Initial	November 18, 2009
AR00860915	FPTI – TRS 8.7.7.5 Test Pressure Acceptance Criteria Not Clear	November 19, 2009
AR00860974	Degrade Fire Seal W9097	November 19, 2009
AR00861033	Fire Door 230 Fusible Link - FPTI	November 20, 2009
WR06372057	Open Junction Box, Unit 1 Screen House	November 18, 2009

### CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
AR00821922	Minor Corrections to Emergency Remote Shutdown Procedures	November 11, 2008
AR00825805	Appendix R Compliance for Train B 4kV Room Fire	February 6, 2008
AR00829915	Repeat Trend in Active Fire Suppression Systems	April 15, 2008
AR00851791	Abandon CO <sub>2</sub> Hose Reels No Longer Required by	May 20, 2009

**CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED**

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	FP Program	
AR00857611	Appendix R Safe-shutdown – Analysis Area 43	September 17, 2009
AR09226013	Noncompliance of NFPA 805 and Lack of Integrated Project Schedule	August 14, 2009
AR09260005	Appendix R Safe-Shutdown-Analysis Area 43	September 17, 2009
AR09280012	Breaker/Fuse Coordination Engineering Evaluation	October 17, 2009
CR003092067	Condition Report to Document DC Cook Epoxy Coating Program Controls	April 2, 2003
CR00816263	Tech Eval 12.7 is Inconsistent w/OPS App “R” Procedures	July 18, 2007

**DRAWINGS**

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
12-5973-9	Fire Hazard Analysis Basement Plan EL 591'-0" and 587'0" Units 1 and 2	9
12-5973-9 REF	Appendix R Hot Standby Equipment and Emergency Lighting Plan EI 591'-0" and 587'-0"	December 29, 2005
12-5974-8 REF	Appendix R Hot Standby Equipment and Emergency Lighting Plan EI 609'-0"	December 29, 2005
12-5976-8 REF	Appendix R Hot Standby Equipment and Emergency Lighting Plan EI 633'-0"	December 29, 2005
OP-1-5153-8	Flow Diagram Fire Protection CO <sub>2</sub> 17 Ton System Key Plan	8
OP-1-5153E-4	Flow Diagram Fire Protection CO <sub>2</sub> Emergency Diesel and Fuel Oil Transfer Pump Rm Unit 1 and 2	4
OP-1-5153E-5	Flow Diagram Fire Protection CO <sub>2</sub> Lower 4kV Areas Unit 1	5
OP-1-5153K-4	Flow Diagram Fire Protection CO <sub>2</sub> Emergency Diesel and Fuel Oil Transfer Pump Rm Unit 1 and 2	4
OP-1-12001-78	Main Auxiliary One Line Diagram Bus A and B	78
OP-1-12002-62	Main Auxiliary One Line Diagram Bus C and D	62
OP-1-12003-32	250Vdc Main One Line Diagram	32
OP-2-12002-36	Main Auxiliary One Line Diagram Bus C and D	36

## EVALUATION

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
PRA Study 054	Cook Unit 1 LER 2008-002-00 Risk Assessment	October 16, 2008

## MISCELLANEOUS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
2007-002	Facility Fire Report	November 14, 2007
2009-003	Facility Fire Report	February 27, 2009
AEP:NRC:6054-03	Response to GL 2006-03: Potentially Nonconforming Hemyc and MT Fire Barrier Configurations	June 1, 2006
ERS-BKD-4025-001-001	Emergency Remote Shutdown	1
ES-FIRE-0601-QCF	Typical Fire and Pressure and Fire, Pressure and Radiological Seal Details, Attachment 1	1
FPCE 2003-0017	Safe-shutdown Capability Assessment	8
LER 2008-002-00	250Vdc Cable Separation Criteria for 10 CFR Part 50 Appendix R Not Met	April 1, 2008
SSCA	Safe-shutdown Capability Assessment	14
Test Plan CTP-1199	One Hour Fire Endurance Test 3M™ Interam® Fire Wrap	0
UFSAR, Chapter 1	Section 1.4.1, Criterion 11, Control Room	22.1
UFSAR, Chapter 7	Section 7.7.8, Hot Shutdown Control	22
UFSAR, Chapter 7	Section 7.7.10, Local Shutdown and Cooldown Station	22

## MODIFICATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
DIT-B-03318-00	Appendix R Operator Action Times	None
EC-48720	Install Fire Wrap on Conduit U1	FCN-003
EC-48721	Install Fire Wrap on Conduit U2	FCN-004

## PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
1-OHP-4021-082-006	Operation of 1AB and 1CD Battery Chargers	11
1-OHP-4024-101 Composite	Annunciator No. 101 Response: Plant Fire System	21
1-OHP-4025-R-Index	System Restoration Procedures Index	2

## PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
1-OHP-4025-R-1	Restore Pressurizer Heaters	2
1-OHP-4030-101-044	Unit One LSI Panel Surveillance	4
1-OHP-5030-APR-001	Appendix R Toolbox and Ladder Inventory	3
2-OHP-4025-001-001	Emergency Remote Shutdown	6 and 7
2-OHP-4025-LS-1	Process Monitoring from LSI Panels	3
2-OHP-4025-LS-2	Start-Up AFW	2
2-OHP-4025-LTI-2	Local Main Steam Isolation	3
2-OHP-4025-LTI-4	Local RCP Trip and Isolation	2
2-OHP-4025-LTI-7	Local Pressurizer Heater Trip and Isolation	2
2-OHP-4025-R-1	Restore Pressurizer Heaters	2
2-OHP-4030-201-044	Unit Two LSI Panel Surveillance	4
2-OHP-4030-214-031, Attachment 1	Operations Weekly Surveillance Checks Unit Two Hot Shutdown Panel Switch Position Checklist	17
2-OHP-4030-214-049, Attachment 14	Hot Shutdown Panel Operability Test Steam Generator PORV Operability Test	6
2-OHP-5030-APR-001	Appendix R Toolbox and Ladder Inventory	4
12-EHP-5070-BPI-001	Buried Pipe Inspection and Mitigation Program	1
12-FFP-2270-066-001	Portable Fire Extinguisher Inspections	9
12-FFP-2270-066-002	Establishment of Backup Fire Protection Water Supplies	2
12-FFP-4030-066-016	Inspection of Thermo-lag, Darmatt and Mecatiss Wrapped Enclosures And 3M™ Interam® Material	1
12-FFP-4030-066-023	Test and Inspections of Plant Fire Hose Standpipe Stations	2
12-FFP-4030-066-024	Hydrostatic Testing and Re-Rack of Fire Hose	2
12-FFP-4030-066-205	Fire Detection Instrumentation Channel Operational Test	0
12-IHP-4030-082-001	AB, CD and N-Train Battery Weekly Surveillance and Maintenance	15
12-IHP-5021-EMP-009	Battery Cell Charging	6
12-IHP-5030-EMP-010	Emergency Battery Light Units	16
12-IHP-5040-EMP-011	Pressurizer Backup Heaters Temporary Power	1
12-OHP-4025-001-002	Fire Response Guidelines	3
PMP-5055-001-001	Winterization/Summerization	10

## TRAINING DOCUMENTS

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<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
AE-C-03202 LP	Emergency Diesel Generators – Refresher	0
AE-C-03202	Course Attendance History	November 5, 2009
Image Title 1-LSI-1	Visual Component Database	April 16, 2002
Image Title 1-LSI-2	Visual Component Database	August 12, 2002
Image Title 1-LSI-3	Visual Component Database	January 16, 1990
Image Title 1-LSI-4	Visual Component Database	January 16, 1990
Image Title 1-LSI-5	Visual Component Database	April 16, 2002
Image Title 1-LSI-6	Visual Component Database	August 12, 2002
RELLP-RQ-C-3244	RQ-C-3244 Appendix R Equipment and Procedures	0
RQ-C-3244	Course Attendance History	November 5, 2009
RO-C-EC01 LP	Appendix R Equipment	7
RO-C-EC01	Objective Slides	None
RO-C-EC01	Course Attendance History	November 5, 2009
RO-C-EC02 LP	Appendix R Procedures	6
RO-C-EC02	Course Attendance History	November 5, 2009
UO-C-ER01 LP	Emergency Response	4
UO-C-ER01	Course Attendance History	November 5, 2009

## WORK DOCUMENTS

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<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
55239216	Perform Appendix R Batlit Discharge	July 23, 2008
55273991	Perform Appendix R Batlit Discharge	February 28, 2008
55288640 01	U1 CD Diesel Generator CO <sub>2</sub> Fire Suppression	September 3, 2008
55289542 01	U1 East (CD) and West (AB) 4kV Switchgear CO <sub>2</sub> Suppression	October 23, 2008
55315940 01	Inspection of Fire Doors, Frames and Their Hardware	September 17, 2008
55327998 01	Inspection of Fire Doors, Frames and Their Hardware	March 27, 2009
55336682	Perform PM Inspection on Appendix R	August 17, 2009
55337578	Perform PM Inspection on Appendix R Lights	September 2, 2009

## LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
AFW	Auxiliary Feedwater
AR	Action Request
CDF	Core Damage Frequency
CFR	Code of Federal Regulations
CO <sub>2</sub>	Carbon Dioxide
dc or DC	Direct Current
DEM	Design Engineering Mechanical
DIT	Design Information Transmittal
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EBL	Emergency Battery Light
EPS	Emergency Power System
FP	Fire Protection
FPTI	Fire Protection Triennial Inspection
GL	Generic Letter
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IPEEE	Individual Plant Examination of External Events
IR	Inspection Report
LER	Licensee Event Report
LSI	Local Shutdown Instrumentation
MT	Mecatiss
NCV	Non Cited Violation
NFPA	National Fire Protection Association
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records
PM	Preventative Maintenance
PORV	Power-Operated Relief Valve
PRA	Probabilistic Risk Assessment
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RETRAN	Thermalhydraulic Computer Code
ROP	Reactor Oversight Process
SDP	Significance Determination Process
SRA	Senior Reactor Analyst
UFSAR	Updated Final Safety Analysis Report
V	Volt

Chapter (IMC) 0305. Therefore, we are exercising enforcement discretion to not cite this violation in accordance with the NRC's Enforcement Policy. If you disagree with the characterization of this finding, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Donald C. Cook Nuclear Power Station.

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Sincerely,

/RA/

Robert C. Daley, Chief  
Engineering Branch 3  
Division of Reactor Safety

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

Enclosure: Inspection Report 05000315/2009006(DRS); 05000316/2009006(DRS)  
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DATE	12/15/09		12/15/09						

**OFFICIAL RECORD COPY**

Letter to Mr. Joseph Jensen from Mr. Robert C. Daley dated December 15, 2009.

SUBJECT: DONALD C. COOK NUCLEAR POWER PLANT, UNITS 1 AND 2  
NRC TRIENNIAL FIRE PROTECTION BASELINE INSPECTION  
REPORT 05000315/2009006(DRS); 05000316/2009006(DRS)  
AND EXERCISE OF ENFORCEMENT DISCRETION

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