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POWER**

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July 24, 2009

AEP-NRC-2009-47  
10 CFR Part 50.54(f)

Docket Nos.: 50-315  
50-316

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Subject: Donald C. Cook Nuclear Plant Unit 1 and Unit 2  
Nine-Month Supplemental (Unit 2 Post-Outage) Response to Generic Letter 2008-01  
issued pursuant to 10 CFR 50.54(f), "Managing Gas Accumulation in Emergency  
Core Cooling, Decay Heat Removal, and Containment Spray Systems"

- References:
1. Nuclear Regulatory Commission (NRC) Generic Letter 2008-01 issued pursuant to 10 CFR 50.54(f), "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," dated January 11, 2008 (ML072910759).
  2. Letter from J. N. Jensen, Indiana Michigan Power Company (I&M), to NRC Document Control Desk, Three-Month Response to NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," AEP:NRC:8054-04, dated April 10, 2008 (ML081120235).
  3. Letter from L. M. James, NRC, to M. W. Rencheck, I&M, "Donald C. Cook Nuclear Plant, Units 1 and 2 – Re: Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" Proposed Alternative Course of Action (TAC Nos MD7817 and MD7818)," dated September 19, 2008 (ML082490171).
  4. Letter from L. J. Weber, I&M, to NRC Document Control Desk, Nine-Month Response to NRC Generic Letter 2008-01 issued pursuant to 10 CFR 50.54(f), "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," AEP:NRC:2008-43, dated October 14, 2008 (ML082950467).

Dear Sir or Madam,

The Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2008-01 (Reference 1) to request that each licensee evaluate the licensing basis, design, testing, and corrective action programs for the Emergency Core Cooling Systems, Residual Heat Removal System, and Containment Spray System, to ensure that gas accumulation is maintained less than the amount that challenges operability of these systems, and that appropriate action is taken when conditions adverse to quality are identified.

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GL 2008-01 requested each licensee to submit a written response in accordance with 10 CFR 50.54(f) within nine months of the date of the GL to provide the information summarized below:

- (a) A description of the results of evaluations that were performed pursuant to the requested actions;
- (b) A description of all corrective actions, including plant, programmatic, procedure, and licensing basis modifications that were determined to be necessary to assure compliance with the quality assurance criteria in Sections III, V, XI, XVI, and XVII of Appendix B to 10 CFR Part 50 and the licensing basis and operating license as those requirements apply to the subject systems; and,
- (c) A statement regarding which corrective actions were completed, the schedule for completing the remaining corrective actions, and the basis for that schedule.

Additionally, the NRC requested that if a licensee cannot meet the requested response date, the licensee "...shall provide a response within three months of the date of this GL...." In the three-month response, the licensee was requested to describe the alternative course of action that it proposed to take, including the basis for the acceptability of the proposed alternative course of action. Reference 2 provided Indiana Michigan Power Company's (I&M's) three-month response to GL 2008-01.

In Reference 2, I&M committed to provide a supplemental evaluation to the response to GL 2008-01 for Unit 2 three months following the completion of the spring 2009 Unit 2 refueling outage. The commitment was made based on completion of walkdowns for piping segments in the containment building that could only be completed during a refueling outage.

In Reference 3, the NRC accepted I&M's proposed alternate course of action, with the exception of the clarification and associated requests that were discussed in the NRC's Staff Assessment. Relative to the post-outage submittal, the NRC requested that submittal information be consistent with the information requested in the GL, and I&M should provide: (1) a description of the results of evaluations that were performed in response to the GL; (2) a description of all corrective actions that the licensee determined were necessary; and (3) a statement regarding which corrective actions were completed, the schedule for completing the remaining corrective actions, and the basis for that schedule.

Reference 4 was the nine-month response that reaffirmed the commitment to provide a supplemental evaluation to the response to GL 2008-01 for Unit 2 three months following the completion of the spring 2009 Unit 2 refueling outage.

Enclosure 1 to this submittal provides I&M's affirmation of the information provided herein. Enclosure 2 provides the Unit 2 post-outage GL 2008-01 supplemental evaluation based on system walkdowns in Unit 2 Containment as required for response to GL 2008-01 during the U2C18

refueling outage. Enclosure 3 provides an update to the Corrective Action Schedule from Reference 4 based on action taken to date in response to GL 2008-01.

This letter contains no new or revised regulatory commitments. Should you have any questions, please contact James M. Petro, Jr., Manager of Regulatory Affairs at (269) 466-2489.

Sincerely,



Raymond A. Hruby, Jr.  
Vice President - Site Support Services

- Enclosures: 1. Affirmation
2. Nine-Month Supplemental (Unit 2 Post-Outage) Response to Generic Letter 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems – Unit 2 Containment System Walkdown
  3. Nine-Month Supplemental (Unit 2 Post-Outage) Response to Generic Letter 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems – Corrective Action Schedule Update

c: T. A. Beltz - NRC Washington, DC  
K. D. Curry - AEP Ft. Wayne  
J. T. King - MPSC  
MDEQ - WHMD/RPS  
NRC Resident Inspector  
M. A. Satorius - NRC Region III

**AFFIRMATION**

I, Raymond A. Hruby, Jr., being duly sworn, state that I am Vice President – Site Support Services of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this request with the Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

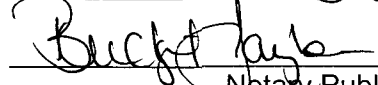
Indiana Michigan Power Company



Raymond A. Hruby, Jr.  
Vice President - Site Support Services

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 24<sup>th</sup> DAY OF July, 2009

  
\_\_\_\_\_  
Notary Public

My Commission Expires 6/10/2013



**Nine-Month Supplemental (Unit 2 Post-Outage) Response to Generic Letter 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems – Unit 2 Containment System Walkdown**

This enclosure contains the Donald C. Cook Nuclear Power Plant (CNP) nine-month supplemental (Unit 2 Post-Outage) response to Nuclear Regulatory Commission (NRC) Generic Letter (GL) 2008-01, dated January 11, 2008, based on system walkdowns in Unit 2 Containment during the U2C18 refueling outage as required for response to GL 2008-01.

Consistent with the information requested in the GL for supplemental submittals, this response provides: (1) a description of the results of evaluations that were performed in response to the GL; (2) a description of all corrective actions that I&M determined were necessary; and (3) a statement regarding which corrective actions were completed, the schedule for completing the remaining corrective actions, and the basis for that schedule.

In Reference 2, CNP committed to conduct piping walkdowns of Unit 2 containment during the Unit 2 spring 2009 refueling outage to comply with requirements of GL 2008-01. The walkdowns were conducted to confirm that the as-installed piping is accurately reflected in design drawings, including isometric drawings. The results are as follows:

1. There were no discrepancies identified between the design drawings and as-found piping configuration during the confirmatory walkdowns. Additionally, the confirmatory walkdowns within the Unit 2 containment did not identify any additional locations that would require a high point vent.
2. No corrective actions were necessary based on walkdown results.
3. No corrective actions were necessary based on walkdown results. Therefore, there are no completed corrective actions, no scheduled corrective actions remaining to be completed, and no basis for that schedule required.

**Nine-Month Supplemental (Unit 2 Post-Outage) Response to Generic Letter 2008-01,  
Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and  
Containment Spray Systems – Corrective Action Update**

This enclosure contains the Donald C. Cook Nuclear Power Plant (CNP) nine-month supplemental (Unit 2 Post-Outage) response to Nuclear Regulatory Commission (NRC) Generic Letter (GL) 2008-01. This enclosure provides an update to the Corrective Action Schedule from AEP-NRC-2008-43, dated October 14, 2008 (ML082950467).

Corrective Action Schedule Update

COMMITMENT	UPDATE
<p>Create a Gas Accumulation Condition Monitoring Program document. This document will contain the following:</p> <ul style="list-style-type: none"> <li>• Performance Monitoring – Description of the routine monitoring and trending of plant parameters that may indicate an increased potential for gas accumulation.</li> <li>• Testing – Location and periodicity of UTs performed to monitor ECCS piping for void formation.</li> <li>• Evaluation – Methodology for evaluating identified voids, including acceptance criteria for operability.</li> </ul> <p>Completion date is set before the start of the Unit 2 RFO. Acceptable date as UT monitoring shows no operability concerns and condition monitoring is already in place.</p>	<p align="center">Complete</p>
<p>Add a description of the Gas Accumulation Condition Monitoring Program to the UFSAR. Date allows sufficient time to prepare UFSAR change package.</p>	<p align="center">Complete</p>
<p>Evaluate the TSTF Traveler for gas accumulation to either supplement or replace the current TS requirements.</p>	<p>60 days after the TSTF is approved by the NRC.</p>
<p>Incorporate interim criteria for operability into the Gas Accumulation Condition Monitoring Program. Date coincides with creation of Gas Accumulation Condition Monitoring Program document.</p>	<p align="center">Complete</p>

COMMITMENT	UPDATE
Add a vent to the CCP Appendix R discharge unit crosstie. Outage required for installation.	Complete
Add vent valves to the RCP seal line. Outage required for installation.	Unit 2 complete Unit 1 to complete during Unit 1 RFO U1C23 – spring 2010
Add a vent valve to the CCP ELO piping downstream of the flow restricting orifice. Outage required for installation.	Unit 2 complete Unit 1 to complete during U1FO8B for 1E-CCP ELO and 1W-CCP ELO. Unit 1 RFO U1C23, spring 2010, for addition of common CCP ELO vent
Complete walkdown of piping inside the Auxiliary Building Leak Detection Enclosures. Time needed for job planning including ALARA.	Complete
Modify Work Control procedure to better describe the role of the Work Assessment Group in preventing gas intrusion. Target date before Unit 2 RFO.	Complete
Develop a guideline for outage scheduling to assist in the proper schedule sequencing of maintenance activities and system restoration.	Complete
<p>Monitor ongoing industry programs for Gas Accumulation.</p> <ul style="list-style-type: none"> <li>• Gas transport in pump suction piping</li> <li>• Pump gas void ingestion tolerance limits</li> </ul>	Ongoing
Define added scope of UTs and document in the Gas Intrusion Condition Monitoring Program. Date coincides with creation of Gas Accumulation Condition Monitoring Program document.	Complete



<b>COMMITMENTS FROM THE 90-DAY RESPONSE TO GENERIC LETTER 2008-01</b>	
<b>COMMITMENT</b>	<b>DATE</b>
Perform system walkdowns in Unit 2 Containment as required for the response to GL 2008-01.	Complete
Perform system walkdowns in Unit 1 Containment as required for the response to GL 2008-01.	Completion of Unit 1 RFO U1C23 – spring 2010
A supplemental evaluation for Unit 2 will be provided to the response to GL 2008-01.	Complete
A supplemental evaluation for Unit 1 will be provided to the response to GL 2008-01.	Three months following the completion of the spring 2010 Unit 1 RFO.

#### Additional Information

The following provides additional information related to the above corrective actions.

Ultrasonic inspections were performed on critical sections of pipe in the containment spray system (CTS) and emergency core cooling systems (ECCS) in response to GL 2008-01 in order to verify the systems were capable of performing their required safety functions. Inspection of the auxiliary building leak detection enclosures identified the recirculation piping for Unit 1 Train B residual heat removal (RHR) and CTS downstream of the motor operated containment isolation valve, 1-ICM-306, Recirculation Sump to West RHR and CTS pumps, was void of water. This condition was entered into the CNP corrective action program. Additional inspections of the other three trains (Unit 1 Train A, Unit 2 Train A and Train B) determined that only Unit 1 Train B was impacted. An evaluation determined that the Unit 1 Train B RHR and CTS remained operable with the identified voided condition. The voided portion of piping has since been filled. The void was caused by inadequate fill and vent of this pipe section. The procedure for fill and vent of this pipe section has been revised to provide additional guidance to ensure voids are removed during the fill and vent process.

Additionally, Licensed Operators have been trained on managing gas accumulation in primary systems as part of their ECCS training. I&M has initiated training requests to train Non-Licensed Operators on managing gas accumulation in primary systems. I&M also has initiated training requests to train Engineering and Maintenance on managing gas accumulation in primary systems. Training for the Operations, Engineering, and Maintenance groups is developed in accordance with the systematic approach to training. This approach uses an interrelated set of activities to systematically establish and maintain performance-based training and qualification programs.