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April 10, 2008

AEP:NRC:8054-04  
10 CFR 50.54(f)

Docket Nos.: 50-315  
50-316

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
11555 Rockville Pike  
Rockville, MD 20852

Donald C. Cook Nuclear Plant Unit 1 and Unit 2  
THREE MONTH RESPONSE TO NRC GENERIC LETTER 2008-01, "MANAGING GAS  
ACCUMULATION IN EMERGENCY CORE COOLING, DECAY HEAT REMOVAL,  
AND CONTAINMENT SPRAY SYSTEMS"

The Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," dated January 11, 2008, 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.

The NRC, in GL 2008-01, requested each licensee to submit a written response in accordance with 10 CFR 50.54(f) within 9 months of the date of the GL to provide the following information:

- (a) A description of the results of evaluations that were performed pursuant to the requested actions of the GL. This description should provide sufficient information to demonstrate that you are or will be in 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 of the GL;
- (b) A description of all corrective actions, including plant, programmatic, procedure, and licensing basis modifications that you determined were necessary to assure compliance with these regulations; and,
- (c) A statement regarding which corrective actions were completed, the schedule for completing the remaining corrective actions, and the basis for that schedule.

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Additionally, the NRC requested that if a licensee cannot meet the requested response date, the licensee "...shall provide a response within 3 months of the date of this GL...." In the three-month response, the licensee is requested to describe the alternative course of action that it proposes to take, including the basis for the acceptability of the proposed alternative course of action. Attachment 1 to this letter contains the Indiana Michigan Power Company three-month response to GL 2008-01.

Attachment 2 to this letter contains the new commitments made in this letter. Should you have any questions, please contact Mr. James M. Petro, Jr., Regulatory Affairs Manager, at (269) 466-2491.

Sincerely,



Joseph N. Jensen  
Site Support Services Vice President

HLE/rdw

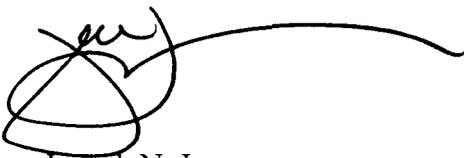
Attachments

- c: J. L. Caldwell – NRC Region III
- K. D. Curry – AEP Ft. Wayne
- J. T. King – MPSC
- MDEQ – WHMD/RPS
- NRC Resident Inspector
- P. S. Tam – NRC Washington, DC

**AFFIRMATION**

I, Joseph N. Jensen, being duly sworn, state that I am Site Support Services Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this document 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



Joseph N. Jensen  
Site Support Services Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 10<sup>th</sup> DAY OF April, 2008

Budget Jayla  
Notary Public

My Commission Expires 6/10/2013



THREE MONTH RESPONSE TO THE REQUESTED INFORMATION FROM  
GENERIC LETTER 2008-01, "MANAGING GAS ACCUMULATION IN EMERGENCY  
CORE COOLING, DECAY HEAT REMOVAL, AND CONTAINMENT SPRAY SYSTEMS"

1.0 Background

Indiana Michigan Power Company (I&M), the licensee for the Donald C. Cook Nuclear Plant (CNP) Units 1 and 2 provides this three month response to Generic Letter (GL) 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems." Specifically, GL 2008-01 requires that if a licensee cannot meet the requested response date of October 11, 2008, the licensee is to provide to the NRC, within three months of the date of the GL, a description of the alternative course of action that the licensee proposes to take, including the basis for the acceptability of the proposed alternative course of action.

Each CNP Unit 1 and 2 Emergency Core Cooling System (ECCS) consists of three separate subsystems: Charging, Safety Injection (SI), and Residual Heat Removal (RHR). Each subsystem consists of two redundant, 100% capacity trains. The ECCS accumulators and the refueling water storage tank (RWST) are also part of the ECCS. The charging pumps used for high head ECCS injection are the same pumps used for normal charging and letdown. However, the charging pump flow path is realigned during ECCS injection, where flow is injected through all four RCS cold legs. During normal operations, the charging system discharges to the reactor coolant pump seals and one of two cold leg loops (one normal and one alternate). Each CNP Unit 1 and Unit 2 Containment Spray (CTS) System also consists of two redundant, 100% capacity trains.

2.0 Actions That Will Not Be Complete By October 11, 2008

GL 2008-01 requests that evaluations be performed to ensure that gas accumulation is maintained less than the amount that challenges operability of the ECCS, RHR, and CTS Systems.

Walkdowns of the piping in the ECCS, RHR, and CTS Systems will be necessary to support the evaluation of these systems as required by GL 2008-01 to ensure that the as-installed piping is accurately reflected in design drawings, including isometric drawings. These systems have a portion of their piping located in the containment building. It is not possible to safely perform walkdowns on these piping segments before October 11, 2008, because of the need for a refueling outage. I&M does not have a refueling outage scheduled for Unit 2 during this period and insufficient time was available to plan and schedule system walkdowns for the in-progress Unit 1 refueling outage, which began on March 26, 2008. Therefore, walkdowns for these piping segments located in the containment building will not be complete by October 11, 2008.

The complete scope of walkdowns for the piping segments in the containment building necessitates the need for completion during a refueling outage due to the following:

- Extensive scaffolding in containment is required for completion,
- Insulation needs to be removed from piping, and,
- Prolonged containment building entries are required.

The walkdowns of accessible piping segments for these systems outside of containment will be completed prior to October 11, 2008. All piping within the scope of GL 2008-01 will be included in the requested response to be completed within nine months of the date of the GL, but the evaluation for the piping in containment will be based on best available information, which includes design and isometric drawings.

### 3.0 Alternative Course of Action Planned

The system walkdown portion of the evaluation for the Unit 1 and Unit 2 ECCS and CTS Systems piping segments that are located within containment will be completed during the next Unit 1 refueling outage scheduled for the Fall of 2009 and the next Unit 2 refueling outage scheduled for the Spring of 2009. Upon completion of the piping walkdowns in containment, supplemental responses for each unit will be provided to the response to GL 2008-01 three months following the completion of each unit's refueling outage.

### 4.0 Basis for the Acceptability of the Alternative Course of Action

The performance of system walkdowns will ensure that as-installed piping is accurately reflected in design drawings, including isometric drawings. Where deviations exist between as-installed and design drawings there is potential to have a gas accumulation location. Filling and venting of systems and flushing of systems after draining are the means used to ensure that system piping is full. An exception to this is the CTS System piping in containment which is maintained dry by design and has been analyzed for that condition. The ECCS piping in containment is kept full as follows:

- The Charging, RHR, and SI System piping is filled and vented in accordance with station procedures if system piping is drained.
- Station surveillance procedures for the Charging System, which are performed after each refueling, provide for system flushes to remove voids in the ECCS portion of the Charging System.
- Station operating procedures are used to flush the RHR and SI Systems to remove voids following extensive system draining during an outage as follows:
  - The procedures provide guidance to flush each RHR train separately (with RHR discharge cross-ties closed) with a flow of between 500 gpm and 3500 gpm. Each

- RHR train flush flushes two Reactor Coolant System (RCS) loop cold leg and loop hot leg injection lines (these injection points are shared with SI).
- The procedures provide guidance to flush the SI System using one SI pump with the SI pump discharge cross-ties open. This flush is done through two of four RCS loop cold leg and two of four RCS loop hot leg injection lines (these injection points are shared with RHR).
  - Following completion of these flushes all loop hot leg and loop cold leg injection lines are flushed.
- Station operating procedures are used to flush the RHR and SI Systems to remove voids following a draindown of the RCS during a refueling outage as follows:
    - The procedures provide guidance to flush each RHR header through two RCS loop hot leg injection points and flushes the RHR heat exchangers at 3000-3500 gpm for 10 minutes.
    - The procedures provide guidance to flush the SI System using one SI pump with the SI pump discharge cross-ties open. This flush is done through two of four RCS loop cold leg and two of four RCS loop hot leg injection lines (these injection points are shared with RHR).
    - Following completion of these flushes all loop hot leg and loop cold leg injection lines are flushed.
  - The containment recirculation sump discharge piping (RHR/CTS pump suction) is filled and vented using station procedures up to the containment isolation valves for the containment recirculation sump.

The above required fill and vent, and system flush procedures provide assurance that the system piping inside of containment is full. Potential gas sources that may cause voids in system piping, including the piping inside of containment, will be part of the required response that will be completed within nine months of the date of GL 2008-01. With the systems full and an evaluation of gas sources as required by the GL, it is reasonable to allow the system walkdowns to be completed during the next refueling outages for Units 1 and 2.

## 5.0 Summary

The requested actions for the GL 2008-01 response will be completed within nine months of the date of the GL, with the evaluation for the piping in containment based on best available information. Supplemental responses for Unit 1 and Unit 2 will be provided to the response to GL 2008-01, three months following the completion of the Unit 1 refueling outage scheduled for the Fall of 2009 and the next Unit 2 refueling outage scheduled for the Spring of 2009.

## REGULATORY COMMITMENTS

The following table identifies those actions committed to by Indiana Michigan Power Company (I&M) in this document. Any other actions discussed in this submittal represent intended or planned actions by I&M. They are described to the Nuclear Regulatory Commission (NRC) for the NRC's information and are not regulatory commitments.

<b>Commitment</b>	<b>Date</b>
Perform system walkdowns in Unit 2 Containment as required for the response to Generic Letter (GL) 2008-01.	Completion of Spring 2009 Refueling outage for Unit 2
Perform system walkdowns in Unit 1 Containment as required for the response to GL 2008-01.	Completion of Fall 2009 Refueling outage for Unit 1.
A supplemental evaluation for Unit 2 will be provided to the response to GL 2008-01.	Three months following the completion of the Spring 2009 Unit 2 refueling outage.
A supplemental evaluation for Unit 1 will be provided to the response to GL 2008-01.	Three months following the completion of the Fall 2009 Unit 1 refueling outage.