



**INDIANA  
MICHIGAN  
POWER**

A unit of American Electric Power

**Indiana Michigan Power**  
One Cook Place  
Bridgman, MI 49106  
IndianaMichiganPower.com

July 1, 2010

AEP-NRC-2010-43  
10 CFR 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  
Unit 1 Post-Outage Supplemental Response to Generic Letter 2008-01, "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, 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).
  5. Letter from R. A. Hruby, Jr., I&M, to NRC Document Control Desk, "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," AEP-NRC-2009-47, dated July 24, 2009 (ML092170084).

A134  
NRR

6. Letter from T. A. Beltz, NRC, to J. N. Jensen, I&M, "Donald C. Cook Nuclear Plant, Units 1 and 2 – Request for Additional Information (RAI) Regarding Generic Letter (GL) 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" (TAC Nos. MD7817 and MD7818), dated October 23, 2009 (ML092890051).
7. Letter from L. J. Weber, I&M, to NRC Document Control Desk, "Donald C. Cook Nuclear Plant Units 1 and 2, Docket No. 50-315 and 50-316, Response to Request for Additional Information Regarding Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" (TAC Nos. MD7817 and MD7818), AEP-NRC-2009-80, dated December 7, 2009 (ML093560846).
8. Letter from T. A. Beltz, NRC, to J. N. Jensen, I&M, "Donald C. Cook Nuclear Plant, Units 1 and 2 – Closeout of Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" (TAC Nos. MD7817 and MD7818)," dated February 26, 2010 (ML100540139).

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.

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) 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 (U2C18). I&M also committed to provide a supplemental evaluation to the response to GL 2008-01 for Unit 1 three months following the completion of the Fall 2009 Unit 1 refueling outage (U1C23). The Fall 2009 Unit 1 outage was subsequently delayed until the Spring of 2010 due to the extended duration of the Unit 1 forced outage for turbine recovery. The commitments were made based on completion of walkdowns for piping segments in the containment buildings that could only be completed during refueling outages.

In Reference 3, the NRC accepted I&M's proposed alternative course of action, with the exception of the clarification and associated requests that were discussed in the NRC's Staff Assessment. Relative to the Unit 1 and Unit 2 post-outage submittals, 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 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 4, I&M provided the nine-month response to GL 2008-01 that reaffirmed the commitment to provide post-outage supplemental evaluations as described above. I&M provided the Donald C. Cook Nuclear Plant Unit 2 supplemental evaluation to the NRC per Reference 5. After review, the NRC issued a Request for Additional Information (RAI) for the Unit 2 post-outage response per Reference 6. I&M answered the NRC RAI per Reference 7. In Reference 8, the NRC indicated that I&M's response to GL 2008-01 was acceptable and that the response was considered closed.

This letter provides the Unit 1 post-outage GL 2008-01 response based on system walkdowns in Unit 1 Containment as committed in Reference 2.

Enclosure 1 to this submittal provides I&M's affirmation of the information provided herein. Enclosure 2 provides the Unit 1 post-outage GL 2008-01 supplemental evaluation based on system walkdowns in Unit 1 Containment during the U1C23 refueling outage. Enclosure 3 provides an update to the Commitment Action Schedule from Reference 4 based on actions taken to date.

This letter contains no new or revised regulatory commitments. Should you have any questions, please contact Michael K. Scarpello, Manager of Regulatory Affairs at (269) 466-2649.

Sincerely,



Michael H. Carlson  
Vice President - Site Support Services

Enclosures: 1. Affirmation

2. Unit 1 Post-Outage Supplemental Response to Generic Letter 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems – Unit 1 Containment System Walkdown
3. Unit 1 Post-Outage Supplemental Response to Generic Letter 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems – Commitment Schedule Update

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

**AFFIRMATION**

I, Michael H. Carlson, 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.

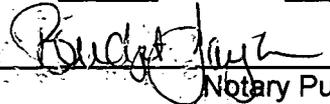
Indiana Michigan Power Company



Michael H. Carlson  
Vice President - Site Support Services

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 1<sup>st</sup> DAY OF July, 2010

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

My Commission Expires 6/10/2013

**Unit 1 Post-Outage Supplemental Response to Generic Letter 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems – Unit 1 Containment System Walkdown**

This enclosure contains the Donald C. Cook Nuclear Plant Unit 1 post-outage response to Generic Letter (GL) 2008-01 based on system walkdowns in Unit 1 Containment during the U1C23 refueling outage.

I&M committed to conduct piping walkdowns of Unit 1 Containment during the Fall 2009 Unit 1 refueling outage (U1C23). U1C23 was delayed until the Spring of 2010 due to the extended duration of the Unit 1 forced outage for turbine recovery. The walkdowns were conducted to confirm that the as-installed piping is accurately reflected in design drawings, including isometric drawings.

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.

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 1 Containment did not identify any additional locations that would require a high point vent.
2. No new corrective actions were created as a result of the Unit 1 walkdown results.
3. No new corrective actions were necessary based on the walkdown results. Therefore, there are no completed corrective actions, no scheduled corrective actions remaining to be completed, and no basis for that schedule required.

Enclosure 3 to AEP-NRC-2010-43

**Unit 1 Post-Outage Supplemental Response to Generic Letter 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems – Commitment Update**

Items previously reported as complete in the Unit 2 post-outage response are not included.

**COMMITMENT SCHEDULE UPDATE**

| COMMITMENT  | UPDATE  |
|---|---|
| Evaluate the Technical Specification Task Force (TSTF) Traveler for gas accumulation to either supplement or replace the current TS requirements.   | This is an ongoing commitment. TSTF-523, "Generic Letter 2008-01, Managing Entrained Gas" will be reviewed for potential incorporation within 60 days of approval by the NRC.   |
| Add vent valves to the Unit 1 RCP seal line. Outage required for installation.  | Complete. Unit 1 RCP seal line vent valves were installed during the Unit 1 refueling outage (U1C23).   |
| Add vent valves to the Unit 1 East Centrifugal Charging Pump (CCP) Emergency Leak Off (ELO) piping downstream of the flow restricting orifice.<br><br>Add a vent valve to the common CCP ELO.               | Complete. 1E-CCP ELO vents were installed during the Unit 1 forced outage (U1FO8B).<br><br>The common CCP ELO vent was installed during the Unit 1 refueling outage (U1C23).  |
| Add vent valves to the Unit 1 West Centrifugal Charging Pump (CCP) Emergency Leak Off (ELO) piping downstream of the flow restricting orifice.  | Complete. 1W-CCP ELO vents were installed during the Unit 1 forced outage (U1FO8B).   |
| Monitor ongoing industry programs for Gas Accumulation.<br><br><ul style="list-style-type: none"> <li>• Gas transport in pump suction piping</li> <li>• Pump gas void ingestion tolerance limits</li> </ul> | Complete. These actions have been added to the implementing document for Gas Accumulation Condition Monitoring Program, EHI-5202. In addition, participation in industry programs is covered by EHI-5200, Engineering Programs. |
| Complete walkdown of Unit 1 Containment   | Complete.   |
| Complete Unit 1 supplemental evaluation   | Complete.   |