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January 6, 2010

U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

ATTENTION: Document Control Desk

Subject: Duke Energy Carolinas, LLC (Duke)
McGuire Nuclear Station, Unit 2
Docket No. 50-370
Generic Letter 2008-01, Supplemental Response

On January 11, 2008, the NRC issued Generic Letter (GL) 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems. A written response consistent with the requested actions and information was requested within 9 months of the date of the GL. If the requested response date could not be met, a 3 month response was requested to provide the proposed alternative course of action.

By letter dated May 8, 2008, Duke provided an alternative course of action for McGuire as well as Catawba and Oconee. Because some of the system piping referenced in the GL is located in areas inaccessible during power operation (i.e., Containment), the field verifications could not be completed until the upcoming refueling outages. Once the outage related field verifications were complete, the results would be provided to the NRC within 90 days of the end of the refueling outage. By letter dated September 25, 2008, the NRC accepted Duke's alternative course of action.

The attachment to this letter provides the McGuire Unit 2 post outage supplemental response to Duke's GL 2008-01 9-month response dated October 13, 2008. McGuire's Unit 1 post outage supplemental response was provided on February 3, 2009.

AIBU
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Please contact Lee A. Hentz at 980-875-4187 if additional questions arise.

Sincerely,



Regis T. Repko

Attachment

cc: w/attachment

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OATH AND AFFIRMATION

Regis T. Repko affirms that he is the person who subscribed his name to the foregoing statement, and that all the matters and facts set forth herein are true and correct to the best of his knowledge.

Regis T. Repko

Regis T. Repko, Site Vice President

Subscribed and sworn to me: January 7, 2010

Date

Jani C. Fibley

Notary Public

My commission expires: July 1, 2012

Date



**Attachment
McGuire Unit 2
Generic Letter (GL) 2008-01
9-Month Supplemental Response**

This attachment contains the results of walk-downs and surveys for Residual Heat Removal (RHR), Medium Head Safety Injection and High Head Safety Injection systems piping inside the Unit 2 Containment (deemed inaccessible for the GL 2008-01 initial 9-month response). The Unit 2 Containment Spray system piping did not require any further walk-downs or surveys due to the design of the system.

System Walk-downs

Extensive system piping walk-downs were performed to verify design drawings were accurate, and that there were no indications of support, restraint, or insulation damage indicative of past water hammer events.

No past evidence of water hammer was identified for piping inside of Containment during the performance of the walk-downs. Several minor as-built drawing discrepancies were noted for the piping layout drawings. Some vent valves shown on system flow diagrams were not depicted on the piping layout drawings. Similar issues were also documented in McGuire's October 13, 2008 GL 2008-01 response and the Unit 1 post outage supplemental response dated February 3, 2009. Drawing discrepancies were entered into the corrective action program and are not considered commitments for this GL 2008-01 response.

Survey Measurements

Field surveys were performed inside Containment to verify the relative slope of the horizontal piping sections. The piping slope surveys were performed by site personnel.

The scope of the pipe slope surveys was primarily limited to longer runs of piping with diameters greater than 2 inches and excluded piping downstream of the second-out Class A Primary Isolation Valves (second valve from the Reactor Coolant system). The piping downstream of the second-out Primary Isolation Valves is maintained either at Reactor Coolant system pressure or Cold Leg Accumulator (CLA) pressure, thus there is no mechanism for gas dissolution after start-up dynamic venting.

Based on review of the slope survey results, one high point location on the RHR cold-leg header was identified which warrants installation of an additional vent valve. This section of piping is operable because the piping is dynamically vented during each unit start-up. In the event of 2A CLA back-leakage, nitrogen gas dissolution would be possible and could migrate to this location. Numerous routine monitoring mechanisms exist to detect potential CLA back-leakage such as: operational rounds monitor for abnormal RHR system pressure, excessive CLA make-ups, and monthly ECCS venting is performed at the RHR Heat Exchanger discharge risers. Similar venting issues were also documented in McGuire's October 13, 2008 GL 2008-01 response. The addition of this vent valve was entered into the corrective action program and is not considered a commitment for this GL 2008-01 response.

Pipe slope surveys were not performed for the RHR hot-leg suction piping, the High Head Safety Injection cold-leg piping, the RHR hot-leg injection piping, and the Medium Head Safety Injection hot-leg injection piping. The basis for this is provided below:

- i.) The RHR system is vented by procedure prior to placing in service. Monthly venting is also performed for the RHR hot-leg suction header at the outboard vent valve, located downstream of the Class 'A' hot-leg isolation valves. This location would afford early detection of any potential gas migration from the downstream RHR suction piping. After securing from the RHR mode of operation, the RHR hot-leg suction piping is isolated with a static head greater than normal Volume Control Tank (VCT) head.
- ii.) The High Head Safety Injection cold-leg header piping is dynamically filled and vented during start-up. The header is routinely under Reactor Coolant system pressure. There is no plausible gas intrusion mechanism after initial fill and vent.
- iii.) The RHR and Medium Head Safety Injection hot-leg injection headers are dynamically filled and vented during start-up. The headers are routinely under Reactor Coolant system pressure. Thus, there is minimal potential for gas intrusion after initial fill and vent.

Conclusion

Walk-downs and pipe slope surveys were performed during the McGuire Unit 2 fall outage for the Residual Heat Removal, Medium Head Safety Injection and High Head Safety Injection systems inside Containment. The results of this effort did not change the conclusions of McGuire's October 13, 2008 GL 2008-01 response or result in any additional commitments.