

Duke Energy Corporation 12700 Hagers Ferry Rd. Huntersville, NC 28078

704 875 4000

June 28, 2006

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

Subject:

Duke Power Company LLC d/b/a Duke Energy Carolinas, LLC

McGuire Nuclear Station, Units 1 and 2

Docket Nos. 50-369, 50-370

NRC Generic Letter 2004-02, Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors, Commitment Status Update

On September 13, 2004 the Nuclear Regulatory Commission (NRC) issued Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors." Duke Power, currently Duke Energy Carolinas (Duke) provided the required responses on March 1, 2005 and September 1, 2005.

On February 9, 2006, the NRC issued requests for additional information (RAI) for Oconee, Catawba and McGuire Nuclear Stations. Subsequent to these requests, on February 28, 2006, the Nuclear Energy Institute (NEI) submitted a request to extend the response dates to the RAIs on behalf of PWR licensees.

On March 3, 2006 the NRC provided a response to Anthony R. Pietrangelo of NEI granting the requested schedule relief. Duke's April 7, 2006 letter was submitted to inform the NRC that Duke would take advantage of the schedule relief granted by the NRC by submitting responses to RAIs contained in the February 9, 2006 letters by December 31, 2006.

This letter is being provided as an update of the commitments provided in the September 1, 2005 submittal. The status is provided in Attachment 1.

If any questions arise or additional information is needed, please contact Mary Shipley at (704) 382-5880.

Very truly yours,

Dhiaa Jamil

**Attachment** 

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Dhiaa M. Jamil 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.

Dhiaa M. Jamil, Site Vice President

Catawba Nuclear Station

Subscribed and sworn to me:  $\frac{6/28/2006}{Date}$ 

Notary Public

My commission expires:  $\frac{7/2}{\text{Date}} \frac{14}{2}$ 

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xc: w/attachment

W. D. Travers, Region II Administrator U.S. Nuclear Regulatory Commission Sam Nunn Atlanta Federal Center, 23 T85 61 Forsyth St., SW Atlanta, GA 30303-8931

J. F. Stang, Jr., Senior Project Manager (CNS & MNS) U. S. Nuclear Regulatory Commission 11555 Rockville Pike Mail Stop 0-8 H 4A Rockville, MD 20852-2738

J. B. Brady NRC Senior Resident Inspector McGuire Nuclear Station

## September 1, 2005 Commitment

1. A baseline evaluation has been performed for McGuire by Enercon Services, Inc. This evaluation was performed using the guidance of NEI 04-07. The evaluation is currently under review by McGuire and will be completed by June 30, 2006.

### **Status**

The baseline evaluation has been reviewed and accepted by McGuire. This commitment is closed.

## September 1, 2005 Commitment

2. A refined evaluation using the guidance of NEI 04-07 will be completed for McGuire by Enercon Services, Inc. The evaluation is currently in progress and will be completed by June 30, 2006. This evaluation will provide plant-specific refinements to the baseline evaluation that can be justified for McGuire. This evaluation is expected to provide additional head loss margin for the containment sump.

### **Status**

Due to the strainer redesign the refined evaluation has not been completed. This evaluation will be complete prior to the installation of the McGuire Unit 1 strainer in the spring of 2007. This commitment has been revised to reflect a spring 2007 due date.

### September 1, 2005 Commitment

3. A downstream effects evaluation will be completed for McGuire by Enercon Services, Inc. This evaluation will be performed using the methodology provided by WCAP-16406-P, "Evaluation of Downstream Sump Debris Effects in Support of GSI 191," (WCAP-16406-P). The evaluation is currently in progress and will be completed by June 30, 2006. Any additional plant modifications or procedure changes associated with this evaluation will be completed by December 31, 2007.

### Status

The downstream effects evaluation for erosion and blockage of components (pumps, valves and orifices) is complete. No additional plant modifications have been identified for McGuire. The documentation of the effectiveness of the bypass eliminators regarding fuel blockage is incomplete. This documentation will be complete by December 31, 2006. This commitment has been revised to reflect a new due date.

# September 1, 2005 Commitment

4. Chemical effects will be evaluated to confirm that sufficient margin exists in the final sump design to account for any associated head loss. The evaluation will be completed by June 30, 2006. Any additional plant modifications or procedure changes associated with this evaluation will be completed by December 31, 2007.

### **Status**

The replacement strainers are being designed with additional margin in an effort to accommodate increased head loss due to chemical effects. Testing and analysis to address chemical effects are not complete. Testing for chemical effects started on June 2, 2006. Upon completion of testing, the results will be evaluated and further actions will be determined.

Downstream chemical effects are still under investigation by the industry with the intent of addressing this issue by December 31, 2007. This commitment date has been revised to reflect a new due date.

## September 1, 2005 Commitment

5. A confirmatory walkdown of containment using the guidance of NEI 02-01, "Condition Assessment Guidelines: Debris Sources Inside PWR Containments" (NEI 02-01) was completed for McGuire Unit 2 in the Spring of 2005. A confirmatory walkdown of containment using the guidance of NEI 02-01 will be performed for McGuire Unit 1 in the Fall of 2005.

### **Status**

The confirmatory walkdown of McGuire Unit 1 was performed as scheduled during the fall 2005. Identified debris loads were confirmed to be consistent with those of Unit 2. This commitment is closed.

### September 1, 2005 Commitment

6. A confirmation of the conservatism of the 200 pound latent debris assumption used in the baseline analysis will be performed by latent debris surveys/sampling during the McGuire Unit 1 Fall refueling outage in 2005.

### **Status**

Latent debris sampling completed by Enercon Services, Inc. during the McGuire Unit 1 fall 2005 refueling outage confirmed the conservatism of the 200 pound latent debris assumption. This commitment is closed.

## September 1, 2005 Commitment

7. The plant labeling process will be enhanced to require that any additional labels or signs placed inside containment are evaluated to ensure that the design basis for transportable debris is not invalidated. This corrective action will be completed by December 31, 2007.

#### Status

The enhancement of the plant labeling process will be completed as committed. This commitment is on schedule.

# September 1, 2005 Commitment

8. Testing will be performed to confirm that the replacement strainer head loss is acceptable under design basis debris loaded conditions. This testing will be conducted prior to installation of the replacement strainers.

#### Status

Head loss testing has been completed by Enercon Services, Inc. Upon completion of the final design it will be confirmed that this testing is still valid for McGuire. This commitment is on schedule per the revised implementation plan detailed in item #9.

## September 1, 2005 Commitment

9. A modified containment sump strainer and supporting structure will be installed in the Fall of 2006 for McGuire Unit 2 and in the Spring of 2007 for McGuire Unit 1.

### **Status**

For McGuire Unit 1, the installation of the modified containment sump strainer and supporting structure is scheduled for spring 2007, as previously committed.

As requested by separate relief letter, a two-phased implementation of the modified containment sump strainer and supporting structure is being pursued for McGuire Unit 2. Phase 1, incorporating approximately 1100 ft<sup>2</sup> of strainer area, will be installed in Fall 2006, and Phase 2, incorporating approximately 1000 ft<sup>2</sup> additional strainer surface, will be installed in Spring 2008. The commitment due date was revised to reflect a new implementation plan.

## September 1, 2005 Commitment

10. Replacement of the Microtherm® insulation (currently installed on portions of the reactor vessel heads) will be completed in the Fall of 2006 for McGuire Unit 2 and in the Spring of 2007 for McGuire Unit 1. The replacement of this insulation will reduce the postulated post-accident debris loading on the sump strainer.

### **Status**

This commitment is on track to be completed as committed.

## September 1, 2005 Commitment

11. Duke will evaluate the modification process to determine if additional controls are needed in order to maintain the validity of inputs to analyses performed in resolving GSI-191 concerns. This evaluation will be completed by June 30, 2006.

## **Status**

The subject evaluation has been completed and documented in the Duke corrective action program. Additional controls were deemed prudent. These additional controls will be implemented by December 31, 2007. This commitment has been revised to reflect a due date for incorporation into site documents.