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~~This letter contains security sensitive information.~~
~~Withhold from Public Disclosure under 10 CFR 2.390~~

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November 29, 2010

Mr. Luis Reyes, Regional Administrator
U. S. Nuclear Regulatory Commission - Region II
Marquis One Tower
245 Peachtree Center Ave., NE, Suite 1200
Atlanta, Georgia 30303-1257

Subject: Duke Energy Carolinas, LLC
Oconee Nuclear Site, Units 1, 2, and 3
Renewed Facility Operating License, DPR-38, DPR-47, and DPR-55
Docket Numbers 50-269, 50-270, and 50-287
Oconee Response to Confirmatory Action Letter (CAL) 2-10-003

References:

1. Nuclear Regulatory Commission (NRC) Letter from Luis A. Reyes to Dave Baxter (Duke Energy), "Confirmatory Action letter - Oconee Nuclear Station, Units 1, 2, and 3 Commitments to Address External Flooding Concerns (TAC Nos. ME3065, ME3066, and ME3067)" dated June 22, 2010.

2. Nuclear Regulatory Commission (NRC) letter from Joseph G. Giitter to Dave Baxter (Duke Energy), "Information Request Pursuant to 10 CFR 50.54(f) Related to External Flooding, Including Failure of the Jocassee Dam, at Oconee Nuclear Station, Units 1, 2, and 3, (TAC NOS. MD8224, MD8225, and MD8226)" dated August 15, 2008.

This letter responds to the NRC's request, as noted in the Confirmatory Action Letter (CAL) dated June 22, 2010, (Reference 1), for a list of all modifications necessary to adequately mitigate the inundation of the Oconee site resulting from a postulated failure of the Jocassee Dam and a notification of any changes to the schedule for completion of actions. In addition, Attachment 1 includes an update to the status of the compensatory measures required by the CAL.

Duke Energy has implemented or completed the external flooding compensatory measures identified in the CAL letter that were due to be implemented or completed through November 2010. The one remaining item is on schedule to be completed by the committed date of December 31, 2010.

The compensatory measures continue to be effective in addressing the NRC's questions and concerns with potential flood waters overflowing onto (i.e. inundating) the Oconee Nuclear Station site. As reviewed by your staff, the compensatory measures have been deemed effective. In addition, a temporary flood diversion wall has been constructed on the north

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portion of Oconee Intake Dike. The temporary flood diversion wall improves the flood protection of the station, particularly equipment and areas associated with implementation of the compensatory measures.

As described in the NRC letter requesting information pursuant to 10 CFR 50.54(f) (Reference 2), mitigation of a potential Jocassee Dam failure includes a demonstration

> "...that the three Oconee units can be safely shutdown and maintained in a safe shutdown condition, and that the two spent fuel pools can be maintained in a safe condition, in the event of external flooding,..."

Duke Energy and NRC staffs have diligently worked to define the input parameters for the inundation study. The results of the inundation study (inundation elevations) are impacted by the selection of input parameters and become design inputs for the modifications necessary to mitigate the inundation. Duke Energy understands that documented acceptance of the set of parameters and the associated results proposed is nearing completion. While interactions between Duke Energy and NRC regarding this matter have continued, Duke Energy pursued a conceptual design study to determine appropriate long term solutions.

Conceptual design studies have progressed with respect to permanent approaches for the mitigation of the postulated external flood from a Jocassee Dam failure. The mitigation approach utilizes the Standby Shutdown Facility (SSF). It is noted that the strategy for other SSF related events typically relies on operation of the SSF for up to 72 hours. For a postulated external flood from a Jocassee Dam failure, Duke Energy has concluded that it is preferable to maximize available recovery time and minimize needed repairs of station equipment following a flood that inundates the site. As a result, concepts for modifications have been developed that rely on an approach that protects the SSF from flooding and extends the duration of its operation. The long term operation of the SSF reduces the scope of needed repair activities associated with long term recovery from the postulated inundation. A list of the conceptual modifications that mitigate a postulated external flood from a Jocassee Dam failure and support this approach is provided below.

1. Provide a flood diversion wall on the north portion of the Oconee Intake Dike. (requires approval by the Federal Energy Regulatory Commission (FERC))

2. Provide a flood protected (i.e. will be available during and after the postulated inundation) offsite electrical power source to the SSF sufficient to support operation of the SSF related equipment without reliance on operation of the SSF diesel generator.

3. Provide flood protection for SSF related Structures, Systems, and Components (SSCs), excluding the SSF diesel generator and its support systems, sufficient to ensure they are capable of performing their safe shutdown functions for the flood conditions in which they are expected to operate.

4. Provide makeup water to and boration of the spent fuel pools sufficient to support extended operation of the SSF and maintain the spent fuel pools in a safe condition.

In the June 22, 2010, CAL the NRC requested submittal of a list of all modifications necessary to adequately mitigate the inundation. During recent interactions between the NRC staff and Duke Energy regarding the status of the external flood project, the NRC clarified its expectations concerning the level of detail for this action. Specifically, the final description of modifications will need to include the elevation of the inundation for which flood protection will be provided. As such, it has been determined that additional time was needed to provide the requested information. Documented acceptance of the 'as found' inundation analysis, finalization of the inundation analyses that support the modifications, and further development of the conceptual modifications described above is necessary to establish firm project scope and schedule. Modification descriptions and implementation dates will be developed and submitted by April 30, 2011.

Attachment 2 identifies those actions committed to by Duke Energy in this letter. Other actions discussed in this letter represent intended or planned actions by Duke Energy. They are described to the Nuclear Regulatory Commission (NRC) for information and are therefore not regulatory commitments.

Since this letter contains security sensitive information, Duke Energy hereby requests the NRC withhold the letter from public disclosure pursuant to 10 CFR 2.390(d)(1), "Public inspections, exemptions, requests for withholding."

If you have any questions on this matter, please contact Bob Meixell, Oconee Regulatory Compliance, at 864-873-3279.

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 29, 2010.

Sincerely,

T P Gillespie

T. Preston Gillespie, Jr.
Vice President
Oconee Nuclear Station

Attachments:

Attachment 1 - Status of External Flood Compensatory Measures
Attachment 2 – Regulatory Commitments

cc:

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Attachment 1
Status of External Flood Compensatory Measures

Number	Compensatory Measures	Implementation Status
1	Perform flooding studies using the Hydrologic Engineering Center – River Complete Analysis System (HEC-RAS) model for comparison with previous DAMBRK models to more accurately represent anticipated flood heights in the west yard following a postulated failure of the Jocassee Dam.	Complete
2	Maintain plans, procedures (Jocassee and Oconee) and guidance documents implemented (Oconee) to address mitigation of postulated flood events which could render the Standby Shutdown Facility inoperable and are consistent with current perspectives gained following the HEC-RAS sensitivity studies and the subsequent 2D inundation studies. To the extent practical, the mitigation strategy is similar to existing extensive plant damage scenario (B.5.b) equipment, methods and criteria.	Implemented
3	Duke Energy Hydro Generation will create a guidance document to consolidate river management and storm management processes. (Includes the Jocassee Development and the Keowee Development.)	Implemented
4	Maintain a dam safety inspection program that includes: (1) weekly dam safety inspections of the Jocassee Dam by Duke Energy personnel, (2) dam safety inspections following any 2-inch or greater rainfall or felt seismic event, (3) annual dam safety inspections by Duke Energy, (4) annual dam safety inspections by FERC representatives, (5) five year safety inspections by FERC approved consultants, and (6) five year underwater inspections.	Implemented
5	Maintain a monitoring program that includes: (1) continuous remote monitoring from the Hydro Central Operating Center in Charlotte, NC, (2) monthly monitoring of observation wells, (3) weekly monitoring of seepage monitoring points, and (4) annual surveys of displacement monuments.	Implemented
6	Assign an Oconee engineer as Jocassee Dam contact to heighten awareness of Jocassee status.	Implemented
7	Install ammeters and voltmeters on Keowee spillway gates for equipment condition monitoring.	Complete
8	Ensure forebay and tailrace level alarms are provided for Jocassee to support timely detection of a developing dam failure	Complete
9	Add a storage building adjacent to the Jocassee Spillway to house the backup spillway gate operating equipment (e.g., compressor and air wrench).	Complete

Attachment 1
Status of External Flood Compensatory Measures

Number	Compensatory Measures	Implementation Status
10	Obtain and stage a portable generator and electric drive motor near the Jocassee spillway gates to serve as a second set of backup spillway gate operating equipment.	Complete
11	Conduct Jocassee Dam failure Table Top Exercise with Oconee participation to exercise and improve response procedures.	~~06/30/2010~~ Complete
12	Instrument and alarm selected seepage monitoring locations for timely detection of degrading conditions.	~~08/31/2010~~ Complete
13	Provide additional video monitoring of Jocassee Dam (e.g., dam toe, abutments, and groin areas) for timely assessment of degrading conditions.	~~08/31/2010~~ Complete
14	Obtain and stage a second set of equipment (including a B.5.b-type pump) for implementation of the external flood mitigation guidance.	~~11/30/2010~~ Complete
15	Conduct Jocassee Dam/Oconee Emergency Response Organization Drill to exercise and improve response procedures.	12/31/10

NOTES:

1. The word "complete" is used in the status column if the commitment regards a specific one-time equipment-related or analysis-related action that has been completed.

2. The word "implemented" is used in the status column if the commitment describes an on-going action that has been implemented.

3. Confirmatory Action Letter (CAL) 2-10-003 dated June 22, 2010, states that the above compensatory measures "shall remain in place until final resolution of the inundation of the Oconee site from the failure of the Jocassee Dam has been determined by the licensee and agreed upon by the U.S. Nuclear Regulatory Commission (NRC), and all modifications are made to mitigate the inundation."

Attachment 2
Regulatory Commitments

The following commitment table identifies those actions committed to by Duke Energy Carolinas, LLC (Duke Energy) in this letter. Other actions discussed in this letter represent intended or planned actions by Duke Energy. They are described to the Nuclear Regulatory Commission (NRC) for information and are therefore not regulatory commitments.

Commitment	Due Date
Submit modification descriptions and implementation dates for external flood mitigation related modifications.	April 30, 2011