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May 9, 2012

10 CFR 50.54(f)

U.S. Nuclear Regulatory Commission (NRC)  
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Subject: Duke Energy Carolinas, LLC (Duke Energy)  
Oconee Nuclear Station (ONS), Units 1, 2 and 3  
Docket Nos. 50-269, 50-270, 50-287  
McGuire Nuclear Station (MNS), Units 1 and 2  
Docket Nos. 50-369, 50-370  
Catawba Nuclear Station (CNS), Units 1 and 2  
Docket Nos. 50-413, 50-414

Duke Energy 60-Day Response to NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident; dated March 12, 2012

Reference: NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident; dated March 12, 2012

On March 12, 2012, the NRC staff issued the referenced Request for Information (RFI) letter. Enclosure 5 of the RFI contains specific Requested Actions and Requested Information associated with the NRC Near-Term Task Force (NTTF) Recommendation 9.3 for Emergency Preparedness (EP) programs. In accordance with 10 CFR 50.54, "Conditions of licenses," paragraph (f), addressees were requested to submit a written response to the information requests within 90 days.

The RFI states that if an addressee cannot meet the requested response date, then the addressee must provide a response within 60 days of the date of the letter and describe the alternative course of action that it proposes to take, including the basis of the acceptability of the proposed alternative course of action and estimated completion date. After a careful review of the requested actions and information, Duke Energy proposes to take the alternative course of action described in Enclosure 1 of this letter. The basis for this proposal is explained in Enclosure 2.

A list of the voluntary regulatory commitments contained in this letter is provided in Enclosure 3.

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This is Duke Energy's consolidated response for all of its licensed operating plants (ONS Units 1, 2 and 3; MNS Units 1 and 2; and CNS Units 1 and 2).

Should you have questions concerning the content of this letter, please contact Jeff Thomas at (704) 382-3438.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 9th day of May, 2012.

Respectfully,



Benjamin C. Waldrep  
Vice President, Nuclear Corporate

Enclosures

1. Proposed Alternative Course of Action for Responding to Recommendation 9.3 Information Request
2. Basis for Proposed Alternative Course of Action for Responding to Recommendation 9.3 Information Request
3. List of Voluntary Regulatory Commitments

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## Enclosure 1

### Proposed Alternative Course of Action for Responding to Recommendation 9.3 Information Request

#### Communications

Request #	Estimated Completion Date	Requested Information
1	10/31/12 Applicable to all sites	<p>Provide an assessment of the current communications systems and equipment used during an emergency event to identify any enhancements that may be needed to ensure communications are maintained during a large scale natural event meeting the conditions described [<i>in the Discussion section of Enclosure 5 of the RFI</i>]. The assessment should:</p> <ul style="list-style-type: none"> <li>• Identify any planned or potential improvements to existing onsite communications systems and their required normal and/or backup power supplies,</li> <li>• Identify any planned or potential improvements to existing offsite communications systems and their required normal and/or backup power supplies,</li> <li>• Provide a description of any new communications system(s) or technologies that will be deployed based upon the assumed conditions described above, and</li> <li>• Provide a description of how the new and/or improved systems and power supplies will be able to provide for communications during a loss of all AC power</li> </ul>
2	6/11/12 Applicable to all sites	Describe any interim actions that have been taken or are planned to be taken to enhance existing communications systems power supplies until the communications assessment and the resulting actions are complete.
3	Two Dates	Provide an implementation schedule of the time needed to conduct and implement the results of the communications assessment.
	9/28/12 Applicable to all sites	Conduct the communications assessment.
	10/31/12 Applicable to all sites	Provide an implementation schedule of the time needed to implement the results of the communications assessment.

**Enclosure 1**

**Proposed Alternative Course of Action for  
Responding to Recommendation 9.3 Information Request**

**Staffing**

Request #	Estimated Completion Date	Requested Information
1	Four Dates	<p>Provide an assessment of the onsite and augmented staff needed to respond to a large scale natural event meeting the conditions described [<i>in the Discussion section of Enclosure 5 of the RFI</i>]. This assessment should include a discussion of the onsite and augmented staff available to implement the strategies as discussed in the emergency plan and/or described in plant operating procedures. The following functions are requested to be assessed:</p> <ul style="list-style-type: none"> <li>• How onsite staff will move back-up equipment (e.g., pumps, generators) from alternate onsite storage facilities to repair locations at each reactor as described in the order regarding the NTTF Recommendation 4.2. It is requested that consideration be given to the major functional areas of NUREG-0654, Table B-1 such as plant operations and assessment of operational aspects, emergency direction and control, notification/communication, radiological accident assessment, and support of operational accident assessment, as appropriate.</li> <li>• New staff or functions identified as a result of the assessment.</li> <li>• Collateral duties (personnel not being prevented from timely performance of their assigned functions).</li> </ul>
	4/30/13 Applicable to all sites	Provide onsite and augmented staffing assessment considering all requested functions except those related to NTTF Recommendation 4.2. [Phase 1 staffing assessment]
	5/20/14 MNS 11/14/14 CNS 6/17/15 ONS	Provide onsite and augmented staffing assessments considering functions related to NTTF Recommendation 4.2. [Phase 2 staffing assessments.]

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**Enclosure 1**

**Proposed Alternative Course of Action for  
Responding to Recommendation 9.3 Information Request**

**Staffing**

Request #	Estimated Completion Date	Requested Information
2	Eight Dates	Provide an implementation schedule of the time needed to conduct the onsite and augmented staffing assessment. If any modifications are determined to be appropriate, please include in the schedule the time to implement the changes.
	3/29/13 Applicable to all sites	1. Conduct the onsite and augmented staffing assessment considering all requested functions except those related to NTTF Recommendation 4.2 [Phase 1 Staffing Assessment]
	4/20/14 MNS 10/14/14 CNS 5/17/15 ONS	The onsite and augmented staffing assessments considering functions related to NTTF Recommendation 4.2 [Phase 2 staffing assessments]
		2. A schedule of the time needed to implement changes will be provided as follows:
	4/30/13 Applicable to all sites	Those associated with the Phase 1 staffing assessment.
	5/20/14 MNS 11/14/14 CNS 6/17/15 ONS	Those associated with the Phase 2 staffing assessments.
3	6/11/2012 Applicable to all sites	Identify how the augmented staff would be notified given degraded communications capabilities.
4	6/11/2012 Applicable to all sites	Identify the methods of access (e.g., roadways, navigable bodies of water and dockage, airlift, etc.) to the site that are expected to be available after a widespread large scale natural event.
5	6/11/2012 Applicable to all sites	Identify any interim actions that have been taken or are planned prior to the completion of the staffing assessment.

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Enclosure 1

Proposed Alternative Course of Action for  
Responding to Recommendation 9.3 Information Request

Staffing

Request #	Estimated Completion Date	Requested Information
6	Four Dates	Identify changes that have been made or will be made to your emergency plan regarding the on-shift or augmented staffing changes necessary to respond to a loss of all AC power, multi-unit event, including any new or revised agreements with offsite resource providers (e.g., staffing, equipment, transportation, etc.). Changes will be identified as follows:
	4/30/13	Those associated with the Phase 1 staffing assessment.
	5/20/14 MNS 11/14/14 CNS 6/17/15 ONS	Those associated with the Phase 2 staffing assessments.

**Enclosure 2**  
**Basis for Proposed Alternative Course of Action for**  
**Responding to Recommendation 9.3 Information Request**

**Communications**

There are two separate responses to the information requests related to communications. The alternate timing of responses to Communications requests #1 and #3 proposed in this letter reflects the higher priority placed by the NRC staff, and approved by the Commission in SECY-12-0025, upon the completion of licensee actions necessary to comply with the Final EP Rule issued in the Federal Register (FR) on November 23, 2011 (76 FR 72560). The proposed timing is warranted as many of Duke Energy's staff resources necessary for performing the communications assessment are the same resources involved in implementing new EP Rule requirements, responding to Institute of Nuclear Power Operations (INPO) initiatives related to enhancing communications capabilities (e.g., IER 11-4), and maintaining existing EP communications equipment.

In addition, the estimated completion date assigned to Communications request #3 will promote alignment between the out-year budgeting/funding of future enhancements, and the development of an accurate and complete enhancement implementation schedule.

**Staffing**

As presented in Enclosure 1 of this letter, a 2-phase approach will be used to respond to the information requests associated with Staffing. The table below summarizes this approach for Duke Energy which has three multi-unit plants (sites).

<b>Plant Type</b>	<b>Phase 1 Staffing Assessment</b> (for functions except those related to NTTF Recommendation 4.2)	<b>Phase 2 Staffing Assessments</b> (for functions related to NTTF Recommendation 4.2)
Multi-unit plants	<ul style="list-style-type: none"> <li>• Perform staffing assessment and implement actions as required by recent EP Rule using Interim Staff Guidance (ISG) and NEI 10-05</li> <li>• Perform staffing assessment as requested by 50.54(f) letter using NEI 12-01 and material from NEI 10-05; provide results per Enclosure 1 of this letter</li> </ul>	Perform staffing assessments as requested by 50.54(f) letter using NEI 12-01; provide results per Enclosure 1 of this letter



**Enclosure 2**  
**Basis for Proposed Alternative Course of Action for**  
**Responding to Recommendation 9.3 Information Request**

The basis for this approach is discussed below.

- For Duke Energy's multi-unit plants, the Phase 1 staffing assessment will be performed by March 29, 2013, and provided by April 30, 2013. This assessment will consider all requested functions except those related to Fukushima Near-Term Task Force (NTTF) Recommendation 4.2. An assessment considering functions related to NTTF Recommendation 4.2 will be performed in Phase 2.

The timing of the Phase 1 staffing assessment reflects the higher priority placed by the NRC staff, and approved by the Commission in SECY-12-0025, upon the completion of licensee actions necessary to comply with the Final EP Rule issued in the FR on November 23, 2011 (76 FR 72560). In particular, Section IV.A.9 of 10 CFR 50, Appendix E, requires that licensees complete a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan. As stated in the EP Rule, this analysis must be completed by December 24, 2012.

Following completion of EP Rule staffing analysis, the staffing assessment associated with the RFI will be performed. Based on staffing analysis experience to date, it is anticipated that a multi-unit staffing analysis will require approximately 3 months to complete and validate. One additional month is allotted for processing of an assessment submittal package.

As requested, an implementation schedule for any changes that are determined to be appropriate will be included with the Phase 1 staffing assessment.

- Duke Energy will conduct the Phase 2 staffing assessments five months prior to the beginning of the first occurrence of a second refueling outage for any unit at the site that commences after February 28, 2013. In addition, the Phase 2 staffing assessments will be provided to the NRC four months prior to the beginning of the first occurrence of a second refueling outage for any unit at the site that commences after February 28, 2013. This assessment will consider the requested functions related to Fukushima NTTF Recommendation 4.2. The estimated completion dates for providing the Phase 2 staffing assessments are based on current refueling outage schedules and are subject to change.

Duke Energy will be responding to multiple regulatory actions resulting from the recommendations contained in the Fukushima NTTF Report, as modified in related Commission Papers (SECY's) and Staff Requirements Memoranda (SRM). One of these actions, in particular, has the potential to impact emergency response staffing levels. This action is associated with Fukushima NTTF Recommendation 4.2 and subsequently issued as NRC Order to Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events EA-12-049 [the Order]. A summary the Order is provided below.

**Enclosure 2**  
**Basis for Proposed Alternative Course of Action for**  
**Responding to Recommendation 9.3 Information Request**

This Order requires a three-phase approach for mitigating beyond-design-basis external events. The initial phase requires the use of installed equipment and resources to maintain or restore core cooling, containment and spent fuel pool (SFP) cooling. The transition phase requires providing sufficient, portable, onsite equipment and consumables to maintain or restore these functions until they can be accomplished with resources brought from off site. The final phase requires obtaining sufficient offsite resources to sustain those functions indefinitely.

Additional details on an acceptable approach for complying with this Order will be contained in final Interim Staff Guidance (ISG) scheduled to be issued by the NRC in August 2012.

In response to the Order, Duke Energy must develop new strategies for mitigating beyond-design-basis external events. To ensure accurate results, the staffing assessment for response functions related to NTTF Recommendation 4.2 must be based upon the actions delineated in procedures and guidelines developed in response to the Order. Once the site-specific actions associated with the new response strategies are defined (e.g., down to the procedure or guideline step level), then the staffing needed to perform these actions can be assessed with the necessary level of accuracy.

Based on a review of the planned actions necessary to comply with the Order, an assessment of the staffing for the functions related to NTTF Recommendation 4.2 will be provided to the NRC 4 months prior to the beginning of the first occurrence of a second refueling outage for any unit at the site following submittal of implementation plans on February 28, 2013, as used within the context of NRC Order EA-12-049.

As requested, an implementation schedule for any changes that are determined to be appropriate will be included with the Phase 2 staffing assessments.

The Phase 2 staffing assessments are components of the overall work plan necessary to implement the requirements of the Order. Duke Energy, as stated in the Order, "...shall complete full implementation no later than two (2) refueling cycles after submittal of the overall integrated plan, as required in Condition C.1.a, or December 31, 2016, whichever comes first." "Full compliance shall include procedures, guidance, training, and acquisition, staging, or installing of equipment needed for the strategies."

**Enclosure 3**  
**List of Voluntary Regulatory Commitments**

1. Duke Energy will provide the requested information described in Communications Request #2, Staffing Request #3, Staffing Request #4, and Staffing Request #5 by June 11, 2012.
2. Duke Energy will conduct and provide the communications assessment (Communications Request #1 and #3) concurrent with an implementation schedule of the time needed to implement the results (Communications Request #3) by October 31, 2012.
3. Duke Energy will conduct and provide the Phase 1 staffing assessment (Staffing Request #1 and #2), identify associated changes that have been made or will be made to each site's Emergency Plan (Staffing Request #6), and provide a schedule of the time needed to implement appropriate changes (Staffing Request #2) by April 30, 2013.
4. Duke Energy will conduct and provide the Phase 2 staffing assessments (Staffing Request #1 and #2), identify associated changes that have been made or will be made to each site's Emergency Plan (Staffing Request #6), and provide a schedule of the time needed to implement appropriate changes (Staffing Request #2) four months prior to the beginning of the first occurrence of a second refueling outage for any unit at the site that commences after February 28, 2013.