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June 8, 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  
Renewed License Nos. DPR-38, DPR-47, and DPR-55

McGuire Nuclear Station (MNS), Units 1 and 2  
Docket Nos. 50-369, 50-370  
Renewed License Nos. NPF-9 and NPF-17

Catawba Nuclear Station (CNS), Units 1 and 2  
Docket Nos. 50-413, 50-414  
Renewed License Nos. NPF-35 and NPF-52

Emergency Preparedness Information Requested by 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:
1. 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.
  2. Duke Energy's 60-Day Response to the March 12, 2012 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 May 9, 2012.

On March 12, 2012, the NRC staff issued Reference 1. Enclosure 5 of Reference 1 contains specific requested actions and requested information associated with 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.

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On May 9, 2012, Duke Energy responded to Reference 1 and submitted an alternate course of action for providing the requested information including revised information due dates, the basis for those due dates, and a list of voluntary regulatory commitments (Reference 2). As committed in Reference 2, Enclosure 1 of this letter responds to the following information requests:

- Reference 2, Enclosure 1, Communications Request #2
- Reference 2, Enclosure 1, Staffing Request #3
- Reference 2, Enclosure 1, Staffing Request #4
- Reference 2, Enclosure 1, Staffing Request #5

A list of the new voluntary regulatory commitments contained within this letter is provided as Enclosure 2.

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 8th day of June, 2012.

Respectfully,



Benjamin C. Waldrep  
Vice President, Nuclear Corporate

Enclosures

1. 90-Day Response to Emergency Preparedness Communications Request #2, Staffing Request #3, Staffing Request #4, and Staffing Request #5
2. List of New Voluntary Regulatory Commitments

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## Enclosure 1

### 90-Day Response to Emergency Preparedness Communications Request #2, Staffing Request #3, Staffing Request #4, and Staffing Request #5

**Communications Request #2** -- 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.

Response:

The primary onsite communication system at each Duke Energy site (Oconee, McGuire, and Catawba) is the Private Branch Exchange (PBX) phone system. This system is normally powered by alternating current (AC) power. When the system detects a loss of AC power, it is designed to swap to direct current (DC) power and automatically start the backup diesel generator. Personnel have been trained regarding the operation of the backup diesel generators.

In addition to the PBX phone system, each site has an ultra high frequency (UHF) radio communications system. The UHF radio communications systems utilize UHF radios with self-contained batteries, spare batteries, and battery chargers. Should the supporting infrastructure (e.g., repeaters and antennas) become unavailable, these radios can be used as "line-of-sight" communications devices. Sufficient radio batteries are available at each site for maintaining "line-of-sight" communications capabilities for an extended period.

The PBX phone systems and the UHF radio communications systems, including existing power supplies, were not designed to withstand the beyond design basis events described in Reference 1. Therefore, evaluations were performed to identify actions that could be taken to improve the availability of these systems during an extended loss of AC power. These evaluations included seismic ruggedness evaluations of the UHF radio communications systems, reviews of methods that could be utilized to extend existing power supplies, and the need for additional training and procedural guidance.

The sites utilize the Selective Signaling phone system as their primary means of offsite communications and have satellite phone capability as backup sources. Reviews of satellite phone inventories resulted in the purchase of additional satellite phones and spare batteries at Oconee and McGuire. The existing inventory of satellite phones at Catawba was deemed acceptable.

In addition to the above, Duke Energy purchased a command and control trailer with a ten kilowatt generator, power receptacles, and emergency lighting that is currently planned to be staged at an offsite facility in Kings Mountain, North Carolina. Although the offsite facility is located within twenty-five miles of one plant site (i.e., the facility is approximately twenty-three miles from Catawba), the command and control trailer does not rely upon any ground-based communications infrastructure and is assumed to be available for use at all three plant sites. That assumption is consistent with NEI 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities." Moreover, Duke Energy purchased twenty-three (23) six-thousand watt portable diesel generators (nine for Oconee, six for McGuire, and eight for Catawba). According to the supplier, the command and control trailer and the portable diesel generators should be available to the sites by late summer 2012.

## Enclosure 1

### **90-Day Response to Emergency Preparedness Communications Request #2, Staffing Request #3, Staffing Request #4, and Staffing Request #5**

**Staffing Request #3** -- Identify how the augmented staff would be notified given degraded communications capabilities.

Response:

In the event of a large scale external event impacting a Duke Energy site (the "affected site"), the offsite infrastructure supporting communications systems within a twenty-five mile area surrounding the affected site is assumed to be nonfunctional. However, the satellite phones are assumed to remain functional. Furthermore, it is assumed that onsite communication devices and the offsite infrastructure supporting communications systems at Duke Energy sites located beyond the twenty-five mile impact area (the "unaffected sites") are not significantly impacted by the event given that all three Duke Energy sites are separated by more than twenty-five miles in all directions.

The normal pager system is the primary means for notification of the Emergency Response Organization (ERO). The normal pager system has its primary equipment hub in Charlotte, North Carolina, and a backup equipment hub at McGuire which is located in Huntersville, North Carolina. Since the primary and backup hubs are located within twenty-five miles of McGuire, the normal paging system is not expected to be available for beyond design basis events that impact McGuire. However, the ERO could be notified using the Nuclear Callout System. The Nuclear Callout System is wholly contained at the site of the vendor who provides this service. The vendor site is located greater than twenty-five miles from any Duke Energy site. Use of the normal pager system and the Nuclear Callout System are proceduralized and periodically activated during drills and exercises to demonstrate proficiency.

Duke Energy is currently evaluating how to best utilize the Nuclear Callout System to notify the ERO during beyond design basis events that result in degraded communications capabilities. In addition, Duke Energy plans to train ERO members to automatically respond to their assigned facilities or a designated staging area when made aware of an area wide loss-of-grid (e.g., by direct observation, media reports, word-of-mouth, etc.). Once the alternate means of notification have been thoroughly evaluated, Duke Energy will ensure the development of, and changes to, appropriate response procedures and guidelines and train the ERO. These actions are expected to be completed by November 30, 2012.

**Staffing Request #4** -- 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.

Response:

Each Duke Energy site has specific Letters of Agreement (documented in the Emergency Plans) for services and support from resource providers such as local counties, fire departments, law enforcement, and health care facilities. In addition, there are other written agreements to facilitate Emergency Plan implementation.

## Enclosure 1

### **90-Day Response to Emergency Preparedness Communications Request #2, Staffing Request #3, Staffing Request #4, and Staffing Request #5**

Duke Energy is currently performing an evaluation to identify appropriate transportation resources that could be used to facilitate timely staff augmentation should the beyond design basis events described in Reference 1 impede methods of site access (e.g., roadways, navigable bodies of water, air transportation). Resources of this type would vary depending upon the location of the site, the type of event, and may include helicopters, all-terrain vehicles, boats, or road clearing services. Furthermore, Duke Energy is evaluating where to locate staging areas to be used by ERO personnel as common locations for transport to an affected site. Some arrangements with resource providers may require additional written agreements. Duke Energy plans to complete these evaluations by November 30, 2012.

**Staffing Request #5** -- Identify any interim actions that have been taken or are planned prior to the completion of the staffing assessment.

Response:

Duke Energy is currently performing staffing analyses (one per site) in accordance with Section IV.A.9 of 10 CFR 50, Appendix E, to demonstrate that on-shift personnel assigned emergency plan implementation functions at each site are not assigned responsibilities that would prevent the timely performance of their assigned emergency plan functions. As stated in the EP Rule, these analyses must be completed by December 24, 2012.

**Enclosure 2**  
**List of New Voluntary Regulatory Commitments**

Below is a list of actions that are described within this document and considered voluntary regulatory commitments. Any other statements in this document are provided for information purposes and are not considered to be regulatory commitments.

1. Duke Energy will evaluate how to best utilize the Nuclear Callout System and other means of notifying the ERO during beyond design basis events that result in degraded communications capabilities. Once the alternate means of notification have been thoroughly evaluated, Duke Energy will ensure the development of, and changes to, appropriate response procedures and guidelines and train the ERO. These actions are expected to be completed by November 30, 2012.
2. Duke Energy will identify by November 30, 2012, appropriate transportation resources and staging areas that could be used to facilitate timely staff augmentation during beyond design basis events that impede normal site access.
3. Duke Energy will evaluate by November 30, 2012, the need to establish written agreements with resource providers to help facilitate timely staff augmentation during beyond design basis events that impede normal site access.