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10 CFR 50.54(f)

October 31, 2012

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk 11555 Rockville Pike Rockville, MD 20852

**Subject:** Duke Energy Carolinas, LLC (Duke Energy)

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

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

Oconee Nuclear Station (ONS), Units 1, 2, and 3 Docket Nos. 50-269, 50-270, and 50-287 Renewed License Nos. DPR-38, DPR-47, and DPR-55

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 Recommendation 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 Regarding Enclosure 5, Recommendation 9.3: Emergency Preparedness, dated May 9, 2012
  - 3. NEI 12-01, Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities, Revision 0

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 alternative course of action for providing the requested information including revised information due dates and the basis for those due dates. In addition, Duke Energy committed to providing the communications assessments (Communications Request #1) for CNS, MNS, and ONS and a communications implementation schedule (Communications Request #3).

Subsequently, Duke Energy revised its commitment to provide the communications assessments and opted instead to provide communication assessment results and communication assessment rollups. In accordance with NEI 99-04, "Guidelines for Managing NRC Commitment Changes," this letter provides notification of the commitment change. The commitment change was made to ensure consistency with similar responses from other licensees.

The communication assessment results and implementation schedule is provided as Enclosure 1. Communications assessment rollups are provided as Enclosures 2 through 4. This is Duke Energy's consolidated response for all its licensed operating plants (CNS Units 1 and 2; MNS Units 1 and 2; and ONS Units 1, 2, and 3).

This letter contains no new regulatory commitments. Any actions discussed in this document should be considered intended or planned enhancement actions.

Should you have any questions concerning this letter, or require additional information, please contact Jeff Thomas, Manager, Fukushima Response Program Operations and Support, at (704) 382-3438.

I declare under penalty of perjury that the foregoing is true and correct. Executed on October 31, 2012.

Respectfully,

Benjamin C Waldrep Vice President – Corporate Governance & Operations Support

Enclosures:

- 1. Communication Assessments Results and Implementation Schedule
- 2. Emergency Communications Assessment Rollup for Catawba Nuclear Station (CNS Units 1 and 2)
- 3. Emergency Communications Assessment Rollup for McGuire Nuclear Station (MNS Units 1 and 2)
- 4. Emergency Communications Assessment Rollup for Oconee Nuclear Station (ONS Units 1, 2, and 3)

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Document Control Desk U. S. Nuclear Regulatory Commission Washington, DC 20555-001 Enclosure 1

Communication Assessment Results and Implementation Schedule

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#### Communication Assessment Results and Implementation Schedule Enclosure 1

Duke Energy did not try to assess the survivability of primary or backup communications systems described in the Emergency Plan (E-Plan) or Emergency Plan Implementing Procedures (EPIPs) during a beyond design basis extended loss of alternating current (AC) power event. Instead, Duke Energy elected to conservatively assume that land line and cellular based communications systems would not be relied upon during a beyond design basis extended loss of AC power event. As a result of this assessment, no improvements will be made to *existing* onsite and offsite communications systems and their required normal and/or backup power supplies.

During a beyond design basis extended loss of AC power event, onsite communications will be established via existing hand-held radios (line-of-sight) and offsite communications will be established via hand-held satellite phones. In addition, small generators were purchased for each site. These portable diesel generators can be used to power hand-held radio battery chargers and hand-held satellite phone battery chargers. The hand-held satellite phones, radios, and small diesel generators will be incorporated into site programs and procedures (see Recommendation R-4, below).

The following recommendations (improvements), including their milestone implementation dates, were identified:

R-1:	Ensure that an appropriate inventory of portable hand-held satellite phones, spare batteries,
	and chargers is available for use by the Emergency Response Organization.
Due Da	ate: 03/28/2013

R-2: Evaluate and purchase, if necessary, additional portable radios, spare batteries, and chargers to ensure required communications links are fully established. Due Date: 03/28/2013

R-3: Ensure that portable communications equipment (i.e., satellite phones, radios, and diesel generators) are stored in a manner such that maximizes survivability from applicable external events per NEI 12-01, Section 4.5.

Due Date: Consistent with the implementation due dates of Order EA-12-049.

R-4: Ensure that programmatic controls are established for communications equipment (e.g., portable satellite phones, radios, small generators) to ensure availability and reliability, including the performance of periodic inventory checks and operability testing per NEI 12-01, Section 4.8. Also, provide training on the locations and use of communications systems and equipment (NEI 12-01, Section 4.11).

Due Date: 9/30/2013

R-5: Ensure that programmatic controls are established for the Government Emergency Telecommunications Service (GETS)/Wireless Priority Service (WPS) programs. Due Date: 3/28/2013

R-6: Ensure that arrangements are in place with communications service providers to utilize their emergency services as described in NEI 12-01, Section 4.10. Due Date: 9/20/2013

R-7: McGuire should evaluate and establish a reasonable alternate method to communicate initial response instructions to the plant staff, when the Public Address System is unavailable. Due Date: 3/28/2013 Enclosure 2

Emergency Communications Assessment Rollup for

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

#### Catawba Nuclear Station (CNS), Units 1 and 2 Enclosure 2

Consistent with emergency planning standard requirements, communications systems and equipment associated with the following emergency response functions should be available during an extended loss of AC power. Availability should be determined after a review of existing capabilities consistent with the assumptions in NEI 12-01, Section 2. In particular, it is important that the primary and backup (if applicable) power source for each communications system or piece of equipment be identified. Endpoint equipment identified for a communications link listed below should be used solely for the purpose indicated. For example, a satellite telephone assigned to the Control Room should not be credited for performing both Offsite Response Organization (ORO) and NRC notifications.

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan <sup>1</sup>	Primary Method Available Following Assumed Large Scale External Event (LSEE)?	Backup Method(s) Described in E- Plan <sup>1</sup>	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Control Room	1 per Control Room for Shift Communicator	Selective Signaling System	Assumed Not Available	PBX Phones, Radio	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Technical Support Center (TSC)	1 for Key TSC Communicator	Selective Signaling System	Assumed Not Available	PBX Phones, Radio	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Emergency Operations Facility (EOF)	1 for Key EOF Communicator	Selective Signaling System	Assumed Not Available	PBX Phones, Radio	Assumed Not Available	Portable Satellite Phone	4.5, 4.7

### 4.1.1 Notifications to, and communications with, OROs [per 10 CFR 50 Appendix E.IV.D and E.9.a]

NOTES:

1. When used in Enclosures 2, the phrase "Described in the E-Plan" refers to the Emergency Plan and/or Emergency Plan Implementing Procedures (EPIPs).

4.1.2 Notifications to, and communications with, the Nuclear Regulatory Commission (NRC) Headquarters Incident Response Center and the appropriate NRC Regional Office Operations Center [per 10 CFR 50 Appendix E.IV.D and E.9.d]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E- Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Control Room	1 per Control Room for ENS Communicator	ETS Telephone	Assumed Not Available	Commercial Telephone	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Technical Support Center (TSC)	1 for ENS Communicator	ETS Telephone	Assumed Not Available	Commercial Telephone	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Location(s) where HPN communications are performed	1 for HPN Communicator	HPN Telephone	Assumed Not Available	Commercial Telephone	Assumed Not Available	Portable Satellite Phone	4.5, 4.7

# 4.1.3 Communications between licensee emergency response facilities [per 10 CFR 50 Appendix E.9.c. Additional links that support performance of critical response functions are also specified.]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E- Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Control Room	1 per unit	PBX telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7

# Catawba Nuclear Station (CNS), Units 1 and 2 Enclosure 2

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E- Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
	1 each for:						
	<ul> <li>Senior/Lead TSC Manager</li> </ul>	PBX Telephone		PA System, Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
	Operations     Coordination		Assumed Not Available				
	<ul> <li>Engineering Coordination</li> </ul>						
Technical Support Center	<ul> <li>Radiological Support</li> </ul>						
	Additional response coordination links for multi-unit sites:						
	<ul> <li>1 for each position providing Unit Response Coordination.</li> </ul>						

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# Catawba Nuclear Station (CNS), Units 1 and 2 Enclosure 2

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E- Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Operational Support Center (OSC)	<ol> <li>each for:</li> <li>Senior/Lead OSC Manager</li> <li>Radiological Support</li> <li>Additional response coordination links for multi-unit sites:</li> <li>1 for each position providing Unit In-Plant Team Coordination.</li> </ol>	PBX Telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Emergency Operations Facility (EOF)	<ol> <li>each for:</li> <li>Senior/Lead Manager</li> <li>Key Protective Measures</li> <li>Operations or Technical Support (as needed to support performance of dose projections, formulation of PARs and plant status updates to ORO authorities).</li> </ol>	Commercial Telephone	Assumed Not Available	Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Joint Information Center (JIC)	1 for Senior Manager	Commercial Telephone	Assumed Not Available	Satellite Phones	Yes	No	N/A

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### 4.1.4 Communications with field/offsite monitoring teams [per 10 CFR 50 Appendix E.9.c]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Primary location where field/offsite monitoring team coordination is performed	Field/offsite monitoring team coordination	Radio	Yes	Satellite Phones	Yes	Portable Satellite Phone	4.5, 4.7
Primary location from which field/ offsite monitoring teams are deployed	1 for each field/offsite monitoring team	Radio	Yes	Satellite Phones	Yes	Portable Satellite Phone	4.5; 4.7

# 4.1.5 Communications with other Federal agencies as described in the site emergency plan (e.g., the US Coast Guard) [per 10 CFR 50 Appendix E.9.b]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Primary location where communication with Federal agencies is performed	Coordination with Federal agencies	PBX Telephone	Assumed Not Available	None	N/A	Portable Satellite Phone	4.5, 4.7

# Catawba Nuclear Station (CNS), Units 1 and 2 Enclosure 2

# 4.1.6 Coordination and direction of on-site and in-plant response teams.

#### 4.1.6.1 Phase 1 Assessment

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
On-shift staff	Number necessary for the on-shift staff to perform Initial Phase coping actions	PBX Telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Radios	4.5, 4.7
Operational Support Center (OSC) and other site- specific locations as necessary	<ol> <li>each for:</li> <li>On-site radiological monitoring</li> <li>each for:</li> <li>Firefighting (1 for brigade leader &amp; 1 for the brigade)</li> <li>each per unit for:</li> <li>In-plant radiological monitoring</li> <li>Search and Rescue</li> <li>Emergency repairs</li> <li>Site-specific number needed to implement any 2 severe accident mitigation strategies</li> </ol>	PBX Telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Radios	4.5, 4.7

# Catawba Nuclear Station (CNS), Units 1 and 2 Enclosure 2

## 4.2 Plant Paging

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E- Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
N/A	See assumptions and discussion in NEI 12-01	PA System	Assumed Not Available	PBX Telephone	No	Portable Radios	4.5, 4.7

## 4.3 Communications Equipment at ORO Facilities

Emergency Response Facility	Minimum Communication Links	Primary Method	Primary Method Available Following Assumed LSEE?	Backup Method(s)	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
York County EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Assumed Not Available	Commercial Telephone Lines	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Mecklenburg County EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Assumed Not Available	Commercial Telephone Lines	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Gaston County EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Assumed Not Available	Commercial Telephone Lines	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
SC State EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Yes (> 25 miles)	Commercial Telephone Lines	Yes (> 25 miles)	Portable Satellite Phone	4.5, 4.7

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# Catawba Nuclear Station (CNS), Units 1 and 2 Enclosure 2

Considerations for performing the communications assessment and identifying enhancements:

#### 4.4 NOTIFICATION OF THE EMERGENCY RESPONSE ORGANIZATION

This area was previously assessed. Information for all three of Duke Energy's licensed operating plants (CNS Units 1 and 2; MNS Units 1 and 2; and ONS Units 1, 2, and 3), was provided to the NRC via the "90-Day Response to Recommendation 9.3 of 10CFR50.54(f) Request for Information" dated June 8, 2012. Therefore, no further assessment activities are required for this assessment area.

#### 4.5 EQUIPMENT LOCATION REQUIREMENTS

Duke Energy conservatively assumed that primary communication systems and equipment for onsite and offsite communications capabilities during a beyond design basis extended loss of AC power event would not be relied upon. Given that assumption, alternate communications systems and equipment should be stored in a location, and maintained in a manner, that maximizes survivability following a beyond design basis external event. For example, equipment location requirements should satisfy the guidance in NEI 12-01, Section 4.5.

The adequacy of equipment storage and locations is ongoing, and is yet to be finalized. Therefore, Duke Energy identified a recommendation/enhancement in this area. Refer to Enclosure 1, Recommendation R-3.

#### 4.6 **PERFORMANCE CHARACTERISTICS**

NEI 12-01 (section 2.4.7) states: "Offsite infrastructure supporting communications systems is inoperable in the area surrounding the site (e.g., cellular telephone or microwave towers, telephone central office buildings, telephone lines, etc.). For this assessment, the company has elected to "apply a default distance value, in all directions, of approximately 25 miles from the plant site." Based on these assumptions, satellite-based communications systems will be utilized to provide offsite communications.

Each site will ensure that an appropriate inventory of hand-held satellite phones is available for use by the Emergency Response Organization in their associated Emergency Response Facilities. This minimizes any reliance on "multi-use" equipment. Refer to Enclosure 1, Recommendation R-1

### 4.7 OTHER ASSESSMENT CONSIDERATIONS

Pursuant to the information previously provided in Duke Energy Carolina's, LLC (Duke Energy) 90-Day Response to the March 12, 2012, request for information regarding enclosure 5, recommendation 9.3 Emergency Preparedness, dated June 8, 2012, Catawba purchased small portable diesel generators that can be used to power handheld radio chargers and portable satellite phone chargers. These portable diesel generators are expected to be on site by late fall 2012. In addition, Catawba will ensure an appropriate inventory of portable hand-held satellite phones and radios, spare batteries, and chargers is available for use by the Emergency Response Organization. Refer to Enclosure 1, Recommendations R-1 and R-2.

### 4.8 QUALITY AND MAINTENANCE-RELATED REQUIREMENTS

Catawba's E-Plan and its EPIPs provide programmatic controls for communications equipment, and related power sources and infrastructure. Similar programmatic controls should be applied to other communications-related equipment to ensure availability and

# Catawba Nuclear Station (CNS), Units 1 and 2 Enclosure 2

reliability, including the performance of periodic inventory checks and operability testing. Refer to Enclosure 1, Recommendation R-4

#### 4.9 NATIONAL COMMUNICATIONS SYSTEM (NCS) SERVICES

Catawba will ensure that a Government Emergency Telecommunications Service (GETS) account is established and that the account is verified annually. Refer to Enclosure 1, Recommendation R-5.

#### 4.10 COMMUNICATIONS PROVIDER EMERGENCY SERVICES

Duke Energy is in the process of evaluating the emergency services offered by communication service providers. Duke Energy will ensure that arrangements are in place with communications service providers to utilize their emergency services as described in NEI 12-01, Section 4.10. Refer to Enclosure 1, Recommendation R-6.

#### 4.11 PERSONNEL TRAINING

Appropriate training will be developed for and provided to response personnel on the location and use of communications systems and equipment. Refer to Enclosure 1, Recommendation R-4.

Enclosure 3

Emergency Communications Assessment Rollup for

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

Consistent with emergency planning standard requirements, communications systems and equipment associated with the following emergency response functions should be available during an extended loss of AC power. Availability should be determined after a review of existing capabilities consistent with the assumptions in NEI 12-01, Revision 0, Section 2. In particular, it is important that the primary and backup (if applicable) power source for each communications system or piece of equipment be identified. Endpoint equipment identified for a communications link listed below should be used solely for the purpose indicated. For example, a satellite telephone assigned to the Control Room should not be credited for performing both Offsite Response Organization (ORO) and NRC notifications.

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan <sup>1</sup>	Primary Method Available Following Assumed Large Scale External Event (LSEE)?	Backup Method(s) Described in E- Plan <sup>1</sup>	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Control Room	1 per Control Room for Shift Communicator	Selective Signaling System	Assumed Not Available	PBX Phones, Radio	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Technical Support Center (TSC)	1 for Key TSC Communicator	Selective Signaling System	Assumed Not Available	PBX Phones, Radio	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Emergency Operations Facility (EOF)	1 for Key EOF Communicator	Selective Signaling System	Assumed Not Available	PBX Phones, Radio	Assumed Not Available	Portable Satellite Phone	4.5, 4.7

### 4.1.1 Notifications to, and communications with, OROs [per 10 CFR 50 Appendix E.IV.D and E.9.a]

NOTES:

1. When used in Enclosures 3, the phrase "Described in the E-Plan" refers to the Emergency Plan and/or Emergency Plan Implementing Procedures (EPIPs).

4.1.2 Notifications to, and communications with, the Nuclear Regulatory Commission (NRC) Headquarters Incident Response Center and the appropriate NRC Regional Office Operations Center [per 10 CFR 50 Appendix E.IV.D and E.9.d]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E- Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Control Room	1 per Control Room for ENS Communicator	ETS Telephone	Assumed Not Available	Commercial Telephone	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Technical Support Center (TSC)	1 for ENS Communicator	ETS Telephone	Assumed Not Available	Commercial Telephone	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Location(s) where HPN communications are performed	1 for HPN Communicator	HPN Telephone	Assumed Not Available	Commercial Telephone	Assumed Not Available	Portable Satellite Phone	4.5, 4.7

# 4.1.3 Communications between licensee emergency response facilities [per 10 CFR 50 Appendix E.9.c. Additional links that support performance of critical response functions are also specified.]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Control Room	1 per unit	PBX Telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
	1 each for:						
	<ul> <li>Senior/Lead TSC Manager</li> </ul>						
	Operations     Coordination		Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
	<ul> <li>Engineering Coordination</li> </ul>	PBX Telephone					
Technical	Radiological Support						
(TSC)	Additional response coordination links for multi-unit sites:						
	<ul> <li>1 for each position providing Unit Response Coordination.</li> </ul>						

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Operational Support Center (OSC)	<ol> <li>each for:</li> <li>Senior/Lead OSC Manager</li> <li>Radiological Support</li> <li>Additional response coordination links for multi-unit sites:</li> <li>1 for each position providing Unit In- Plant Team Coordination.</li> </ol>	PBX Telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Emergency Operations Facility (EOF)	<ol> <li>each for:</li> <li>Senior/Lead Manager</li> <li>Key Protective Measures</li> <li>Operations or Technical Support (as needed to support performance of dose projections, formulation of PARs and plant status updates to ORO authorities).</li> </ol>	Commercial Telephone	Assumed Not Available	Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Joint Information Center (JIC)	1 for Senior Manager	Commercial Telephone	Assumed Not Available	None	N/A	Portable Satellite Phone	4.5, 4.7

### 4.1.4 Communications with field/offsite monitoring teams [per 10 CFR 50 Appendix E.9.c]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Primary location where field/offsite monitoring team coordination is performed	Field/offsite monitoring team coordination	Radio	Yes	None	N/A	Portable Satellite Phone	4.5, 4.7
Primary location from which field/ offsite monitoring teams are deployed	1 for each field/offsite monitoring team	Radio	Yes	None	N/A	Portable Satellite Phone	4.5, 4.7

# 4.1.5 Communications with other Federal agencies as described in the site emergency plan (e.g., the US Coast Guard) [per 10 CFR 50 Appendix E.9.b]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Primary location where communication with Federal agencies is performed	Coordination with Federal agencies	PBX Telephone	Assumed Not Available	None	N/A	Portable Satellite Phone	4.5, 4.7

### 4.1.6 Coordination and direction of on-site and in-plant response teams.

#### 4.1.6.1 Phase 1 Assessment

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
On-shift staff	Number necessary for the on-shift staff to perform Initial Phase coping actions	PBX Telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Radios	4.5, 4.7
Operational Support Center (OSC) and other site- specific locations as necessary	<ul> <li>1 each for:</li> <li>On-site radiological monitoring</li> <li>2 each for:</li> <li>Firefighting (1 for brigade leader &amp; 1 for the brigade)</li> <li>2 each per unit for:</li> <li>In-plant radiological monitoring</li> <li>Search and Rescue</li> <li>Emergency repairs</li> <li>Site-specific number needed to implement any 2 severe accident mitigation strategies</li> </ul>	PBX telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Radios	4.5, 4.7

## 4.2 Plant Paging

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E- Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
N/A	See assumptions and discussion in NEI 12-01	PA System	Assumed Not Available	None	N/A	Yes	See Recommendation 7

## 4.3 Communications Equipment at ORO Facilities

Emergency Response Facility	Minimum Communication Links	Primary Method	Primary Method Available Following Assumed LSEE?	Backup Method(s)	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Lincoln County EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Assumed Not Available	Commercial Telephone Lines	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Mecklenburg County EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Assumed Not Available	Commercial Telephone Lines	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Gaston County EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Assumed Not Available	Commercial Telephone Lines	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Iredell County EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Assumed Not Available	Commercial Telephone Lines	Assumed Not Available	Portable Satellite Phone	4.5, 4.7

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Emergency Response Facility	Minimum Communication Links	Primary Method	Primary Method Available Following Assumed LSEE?	Backup Method(s)	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Catawba County EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Assumed Not Available	Commercial Telephone Lines	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
NC State EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Yes (> 25 miles)	Commercial Telephone Lines	Yes (> 25 miles)	Portable Satellite Phone	4.5, 4.7

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Considerations for performing the communications assessment and identifying enhancements:

#### 4.4 NOTIFICATION OF THE EMERGENCY RESPONSE ORGANIZATION

This area was previously assessed. Information for all three of Duke Energy's licensed operating plants (CNS Units 1 and 2; MNS Units 1 and 2; and ONS Units 1, 2, and 3), was provided to the NRC via the "90-Day Response to Recommendation 9.3 of 10CFR50.54(f) Request for Information" dated June 8, 2012. Therefore, no further assessment activities are required for this assessment area.

#### 4.5 EQUIPMENT LOCATION REQUIREMENTS

Duke Energy conservatively assumed that primary communication systems and equipment for onsite and offsite communications capabilities during a beyond design basis extended loss of AC power event would not be relied upon. Given that assumption, alternate communications systems and equipment should be stored in a location, and maintained in a manner, that maximizes survivability following a beyond design basis external event. For example, equipment location requirements should satisfy the guidance in NEI 12-01, Section 4.5.

The adequacy of equipment storage and locations is ongoing, and is yet to be finalized. Therefore, Duke Energy identified a recommendation/enhancement in this area. Refer to Enclosure 1, Recommendation R-3.

#### 4.6 **PERFORMANCE CHARACTERISTICS**

NEI 12-01 (section 2.4.7) states: "Offsite infrastructure supporting communications systems is inoperable in the area surrounding the site (e.g., cellular telephone or microwave towers, telephone central office buildings, telephone lines, etc.). For this assessment, the company has elected to "apply a default distance value, in all directions, of approximately 25 miles from the plant site." Based on these assumptions, satellite-based communications systems will be utilized to provide offsite communications.

Each site will ensure that an appropriate inventory of hand-held satellite phones is available for use by the Emergency Response Organization in their associated Emergency Response Facilities. This minimizes any reliance on "multi-use" equipment. Refer to Enclosure 1, Recommendation R-1

#### 4.7 OTHER ASSESSMENT CONSIDERATIONS

Pursuant to the information previously provided in Duke Energy Carolina's, LLC (Duke Energy) 90-Day Response to the March 12, 2012, request for information regarding enclosure 5, recommendation 9.3 Emergency Preparedness, dated June 8, 2012, McGuire purchased small portable diesel generators that can be used to power handheld radio chargers and portable satellite phone chargers. These portable diesel generators are expected to be on site by late fall 2012. In addition, McGuire will ensure an appropriate inventory of portable hand-held satellite phones and radios, spare batteries, and chargers is available for use by the Emergency Response Organization. Refer to Enclosure 1, Recommendations R-1 and R-2.

#### 4.8 QUALITY AND MAINTENANCE-RELATED REQUIREMENTS

McGuire's E-Plan and its EPIPs provide programmatic controls for communications equipment, and related power sources and infrastructure. Similar programmatic controls should be applied to other communications-related equipment to ensure availability and

reliability, including the performance of periodic inventory checks and operability testing. Refer to Enclosure 1, Recommendation R-4.

### 4.9 NATIONAL COMMUNICATIONS SYSTEM (NCS) SERVICES

McGuire will ensure that a Government Emergency Telecommunications Service (GETS) account is established and that the account is verified annually. Refer to Enclosure 1, Recommendation R-5.

#### 4.10 COMMUNICATIONS PROVIDER EMERGENCY SERVICES

Duke Energy is in the process of evaluating the emergency services offered by communication service providers. Duke Energy will ensure that arrangements are in place with communications service providers to utilize their emergency services as described in NEI 12-01, Section 4.10. Refer to Enclosure 1, Recommendation R-6.

#### 4.11 PERSONNEL TRAINING

Appropriate training will be developed for and provided to response personnel on the location and use of communications systems and equipment. Refer to Enclosure 1, Recommendation R-4.

### Enclosure 4

**Emergency Communications Assessment Rollup for** 

Oconee Nuclear Station (ONS), Units 1, 2, and 3 Docket Nos. 50-269, 50-270, and 50-28 Renewed License Nos. DPR-38, DPR-47, and DPR-55

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# Oconee Nuclear Station (ONS) Units 1, 2, and 3 Enclosure 4

Consistent with emergency planning standard requirements, communications systems and equipment associated with the following emergency response functions should be available during an extended loss of AC power. Availability should be determined after a review of existing capabilities consistent with the assumptions in NEI 12-01, Revision 0, Section 2. In particular, it is important that the primary and backup (if applicable) power source for each communications system or piece of equipment be identified. Endpoint equipment identified for a communications link listed below should be used solely for the purpose indicated. For example, a satellite telephone assigned to the Control Room should not be credited for performing both Offsite Response Organization (ORO) and NRC notifications.

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan <sup>1</sup>	Primary Method Available Following Assumed Large Scale External Event (LSEE)?	Backup Method(s) Described in E-Plan <sup>1</sup>	Backup Method(s) Available following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Control Room	1 per Control Room for Shift Communicator	Selective Signaling System	Assumed Not Available	Commercial Phones, Radio	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Technical Support Center (TSC)	1 for Key TSC Communicator	Selective Signaling System	Assumed Not Available	Commercial Phones, Radio	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Emergency Operations Facility (EOF)	1 for Key EOF Communicator	Selective Signaling System	Yes (> 25 miles)	Commercial Phones, Radio	Yes (> 25 miles)	Portable Satellite Phone	4.5, 4.7

### 4.1.1 Notifications to, and communications with, OROs [per 10 CFR 50 Appendix E.IV.D and E.9.a]

NOTES:

1. When used in Enclosures 4, the phrase "Described in the E-Plan" refers to the Emergency Plan and/or Emergency Plan Implementing Procedures (EPIPs).

4.1.2 Notifications to, and communications with, the Nuclear Regulatory Commission (NRC) Headquarters Incident Response Center and the appropriate NRC Regional Office Operations Center [*per 10 CFR 50 Appendix E.IV.D and E.9.d*]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Control Room	1 per Control Room for ENS Communicator	ETS Telephone	Assumed Not Available	Commercial Telephone	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Technical Support Center (TSC)	1 for ENS Communicator	ETS Telephone	Assumed Not Available	Commercial Telephone	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Location(s) where HPN communications are performed	1 for HPN Communicator	HPN Telephone	Assumed Not Available	Commercial Telephone	Assumed Not Available	Portable Satellite Phone	4.5, 4.7

# 4.1.3 Communications between licensee emergency response facilities [per 10 CFR 50 Appendix E.9.c. Additional links that support performance of critical response functions are also specified.]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Control Room	1 per unit	PBX Telephone	Assumed Not Available	PA System, Phones, Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7

# Oconee Nuclear Station (ONS) Units 1, 2, and 3 Enclosure 4

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information	
	1 each for:							
	<ul> <li>Senior/Lead TSC Manager</li> </ul>		Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7	
	<ul> <li>Operations Coordination</li> </ul>	PBX Telephone						
	<ul> <li>Engineering Coordination</li> </ul>							
Technical	<ul> <li>Radiological Support</li> </ul>							
Support Center (TSC)	Additional response coordination links for multi-unit sites:							
	<ul> <li>1 for each position providing Unit Response Coordination.</li> </ul>							

# Oconee Nuclear Station (ONS) Units 1, 2, and 3 Enclosure 4

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Operational Support Center (OSC)	<ol> <li>each for:</li> <li>Senior/Lead OSC Manager</li> <li>Radiological Support</li> <li>Additional response coordination links for multi-unit sites:</li> <li>1 for each position providing Unit In-Plant Team Coordination.</li> </ol>	PBX Telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Emergency Operations Facility (EOF)	<ol> <li>each for:</li> <li>Senior/Lead Manager</li> <li>Key Protective Measures</li> <li>Operations or Technical Support (as needed to support performance of dose projections, formulation of PARs and plant status updates to ORO authorities).</li> </ol>	Commercial Telephone	Yes (> 25 miles)	Radios	Yes (> 25 miles)	Portable Satellite Phone	4.5, 4.7
Joint Information Center (JIC)	1 for Senior Manager	Commercial Telephone	Yes (> 25 miles)	Satellite Phone	Yes (> 25 miles)	No	N/A

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### 4.1.4 Communications with field/offsite monitoring teams [per 10 CFR 50 Appendix E.9.c]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Primary location where field/offsite monitoring team coordination is performed	Field/offsite monitoring team coordination	Radio	Yes	None	N/A	Portable Satellite Phone	4.5, 4.7
Primary location from which field/ offsite monitoring teams are deployed	1 for each field/offsite monitoring team	Radio	Yes	None	N/A	Portable Satellite Phone	4.5, 4.7

# 4.1.5 Communications with other Federal agencies as described in the site emergency plan (e.g., the US Coast Guard) [per 10 CFR 50 Appendix E.9.b]

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Primary location where communication with Federal agencies is performed	Coordination with Federal agencies	PBX Telephone	Assumed Not Available	Commercial Telephone	Assumed Not Available	Portable Satellite Phone	4.5, 4.7

### 4.1.6 Coordination and direction of on-site and in-plant response teams.

#### 4.1.6.1 Phase 1 Assessment

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
On-shift staff	Number necessary for the on-shift staff to perform Initial Phase coping actions	PBX Telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Radios	4.5, 4.7
Operational Support Center (OSC) and other site- specific locations as necessary	<ol> <li>each for:</li> <li>On-site radiological monitoring</li> <li>each for:</li> <li>Firefighting (1 for brigade leader &amp; 1 for the brigade)</li> <li>each per unit for:</li> <li>In-plant radiological monitoring</li> <li>Search and Rescue</li> <li>Emergency repairs</li> <li>Site-specific number needed to implement any 2 severe accident mitigation strategies</li> </ol>	PBX Telephone	Assumed Not Available	PA System, Radios	Assumed Not Available	Portable Radios	4.5, 4.7

### Oconee Nuclear Station (ONS) Units 1, 2, and 3 Enclosure 4

# 4.2 Plant Paging

Emergency Response Facility	Minimum Communication Links	Primary Method Described in E-Plan	Primary Method Available Following Assumed LSEE?	Backup Method(s) Described in E-Plan	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
N/A	See assumptions and discussion in NEI 12-01	PA System	Assumed Not Available	PBX Telephone	No	Portable Radios	4.5, 4.7

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### 4.3 Communications Equipment at ORO Facilities

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Emergency Response Facility	Minimum Communication Links	Primary Method	Primary Method Available Following Assumed LSEE?	Backup Method(s)	Backup Method(s) Available Following Assumed LSEE?	Planned or Potential Improvement Identified?	Refer to the Following Section(s) for Additional Information
Oconee County EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Assumed Not Available	Commercial telephone Lines	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
Pickens County EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Assumed Not Available	Commercial Telephone Lines	Assumed Not Available	Portable Satellite Phone	4.5, 4.7
SC State EOC	1 for key WP Communicator 1 for key EOC Communicator	Selective Signaling System	Yes (> 25 miles)	Commercial Telephone Lines	Yes (> 25 miles)	Portable Satellite Phone	4.5, 4.7

# Oconee Nuclear Station (ONS) Units 1, 2, and 3 Enclosure 4

Considerations for performing the communications assessment and identifying enhancements:

#### 4.4 NOTIFICATION OF THE EMERGENCY RESPONSE ORGANIZATION

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#### 4.6 **PERFORMANCE CHARACTERISTICS**

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#### 4.7 OTHER ASSESSMENT CONSIDERATIONS

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#### 4.8 QUALITY AND MAINTENANCE-RELATED REQUIREMENTS

Oconee's E-Plan and its EPIPs provide programmatic controls for communications equipment, and related power sources and infrastructure. Similar programmatic controls

# Oconee Nuclear Station (ONS) Units 1, 2, and 3 Enclosure 4

should be applied to other communications-related equipment to ensure availability and reliability, including the performance of periodic inventory checks and operability testing. Refer to Enclosure 1, Recommendation R-4.

#### 4.9 NATIONAL COMMUNICATIONS SYSTEM (NCS) SERVICES

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#### 4.11 PERSONNEL TRAINING

Appropriate training will be developed for and provided to response personnel on the location and use of communications systems and equipment. Refer to Enclosure 1, Recommendation R-4.