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Serial: RA-17-0002  
January 16, 2017

10 CFR 50.90  
10 CFR 50, Appendix E, IV.E.8.b  
10 CFR 50.54(q)(4)

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

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1  
DOCKET NO. 50-400 / RENEWED LICENSE NO. NPF-63

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261 / RENEWED LICENSE NO. DPR-23

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-325, 50-324 / RENEWED LICENSE NOS. DPR-71 AND DPR-62

CATAWBA NUCLEAR STATION, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-413, 50-414 / RENEWED LICENSE NOS. NPF-35 AND NPF-52

MCGUIRE NUCLEAR STATION, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-369, 50-370 / RENEWED LICENSE NOS. NPF-9 AND NPF-17

OCONEE NUCLEAR STATION, UNIT NOS. 1, 2 AND 3  
DOCKET NOS. 50-269, 50-270, AND 50-287 / RENEWED LICENSE NOS. DPR-38, DPR-47,  
AND DPR-55

WILLIAM STATES LEE III NUCLEAR STATION, UNITS 1 AND 2  
DOCKET NOS. 52-018 AND 52-019

**SUBJECT: SUPPLEMENTAL INFORMATION REGARDING APPLICATION FOR  
EMERGENCY OPERATIONS FACILITY (EOF) CONSOLIDATION**

**REFERENCES:**

1. Duke Energy letter, *Request for Emergency Operations Facility (EOF) Consolidation*, dated April 29, 2016 (ADAMS Accession No. ML16120A076)
2. NRC email, *Duke Energy Fleet RAIs – License Amendment Request For Emergency Operations Facility (EOF) Consolidation (MF7650 to MF7660)*, dated September 1, 2016 (ADAMS Accession No. ML16250A033)
3. Duke Energy letter, *Response to Request for Additional Information (RAI) Regarding Application for Emergency Operations Facility (EOF) Consolidation*, dated October 3, 2016 (ADAMS Accession No. ML16277A521)
4. NRC letter, *Issuance of Combined Licenses for William States Lee III Nuclear Station Units 1 and 2*, dated December 22, 2016 (ADAMS Accession No. ML16354A256)
5. NRC email, *Duke Energy Consolidated EOF - Additional Requests*, dated December 23, 2016

Ladies and Gentlemen:

In Reference 1, Duke Energy Progress, LLC (formerly referred to as Duke Energy Progress, Inc.) and Duke Energy Carolinas, LLC, referred to henceforth as "Duke Energy," submitted a request to consolidate the Emergency Operations Facilities (EOFs) for Brunswick Steam Electric Plant, Unit Nos. 1 and 2 (BSEP), Shearon Harris Nuclear Power Plant, Unit 1 (HNP), and H. B. Robinson Steam Electric Plant, Unit No. 2 (RNP) with the Duke Energy corporate EOF (hereafter referred to as the Charlotte EOF) in Charlotte, North Carolina. In Reference 2, the NRC requested additional information (RAI) regarding this submittal. Reference 3 provided Duke Energy's response to the Reference 2 RAI. Duke Energy's response to RAI 4 in Reference 3 states: "Duke Energy will submit a supplement to the existing April 29, 2016 LAR acknowledging the addition of WLS [William States Lee III Nuclear Station] to the Charlotte EOF within 30 days of issuance of the WLS operating license." The WLS combined licenses (COLs) for Unit 1 and Unit 2 were issued effective December 19, 2016 (Reference 4). The purpose of this submittal is to provide the aforementioned supplement. In addition, Duke Energy's response in Reference 3, RAI 1.d communicated additional change requests that were not included in the original Reference 1 submittal. As requested in Reference 5, and in accordance with 10 CFR 50.54(q), those additional changes are added to this supplement.

Enclosure 1 of this letter supersedes Enclosure 1 of Reference 1. Other information in Reference 1 is unaffected. The changes from Enclosure 1 of Reference 1 are denoted with revision bars in the left margin. Enclosure 2 includes the affected Emergency Plan page associated with the additional change requests communicated in Reference 3, RAI 1.d.

This submittal contains no new regulatory commitments. In accordance with 10 CFR 50.91, Duke Energy is notifying the states of North Carolina and South Carolina by transmitting a copy of this letter to the designated state officials. Should you have any questions concerning this letter, or require additional information, please contact Art Zaremba, Manager – Nuclear Fleet Licensing, at 980-373-2062.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on January 16, 2017.

Sincerely,



Kelvin Henderson  
Senior Vice President – Nuclear Corporate

JBD

Enclosures: 1. Evaluation of the Proposed Change  
2. Oconee Nuclear Station Emergency Plan Markup

cc: (all with Attachments unless otherwise noted)

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**Enclosure 1**

**Evaluation of the Proposed Change**

## EVALUATION OF THE PROPOSED CHANGE

Subject: SUPPLEMENTAL INFORMATION REGARDING APPLICATION FOR EMERGENCY OPERATIONS FACILITY (EOF) CONSOLIDATION

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1.0 SUMMARY DESCRIPTION

This evaluation supports a request to consolidate the Emergency Operations Facilities (EOFs) for Brunswick Steam Electric Plant (BSEP) Unit Nos. 1 and 2, Shearon Harris Nuclear Power Plant (HNP) Unit 1, and H. B. Robinson Steam Electric Plant (RNP) Unit No. 2 with the Duke Energy corporate EOF (hereafter referred to as the Charlotte EOF) in Charlotte, North Carolina. The consolidation will relocate each of the affected stations' EOFs greater than 25 miles from their respective reactor sites. In addition, to support the consolidation, the BSEP, HNP, and RNP required augmentation times are requested to be changed to times consistent with that of the sites currently supported by the Charlotte EOF. It is also requested to decrease the frequency for a multi-site drill from once per 6 years to once per 8 years and allow the multi-site drill performance with sites other than Oconee, McGuire, or Catawba Nuclear Stations. Finally, it is requested to decrease the frequency of the unannounced augmentation drill at BSEP from twice per year to once per year.

The proposed consolidation is expected to have the following positive effects on the affected stations' emergency response capability:

- Increased efficiency through the use of common practices and procedures in a single facility;
- Enhanced reliability of emergency response by relocating the EOF away from a reactor site that could be affected by a large scale external event, security event, or site radioactivity release; and
- Increased site Emergency Response Organization (ERO) position depth through the redeployment of personnel now holding EOF positions to other positions in the Technical Support Centers (TSCs) and the Operational Support Centers (OSCs).

2.0 DETAILED DESCRIPTION

Duke Energy desires to consolidate the existing BSEP, HNP, and RNP EOFs with the Charlotte EOF. BSEP and RNP each have an EOF located onsite. The HNP EOF is in the Harris Energy and Environmental Center approximately two miles from the site. The proposed change would allow the current EOF functions to be relocated to the Charlotte EOF, which is greater than 25 miles from the three sites, as shown in Table 2-1. In accordance with 10 CFR 50, Appendix E, IV.E.8.b, this license amendment is required in order to request locating an EOF greater than 25 miles from a reactor site.

**Table 2-1  
 EOF Distances**

Reactor Site	Distance to EOF (Approximate Air Miles)	
	Existing	Proposed
Brunswick Steam Electric Plant	Onsite	184
Shearon Harris Nuclear Power Plant	2	110
H. B. Robinson Steam Electric Plant	Onsite	69

Charlotte EOF members are currently required to augment within 75 minutes from declaration of an Alert or higher event classification. The BSEP, HNP, and RNP required EOF augmentation times are 60 to 75 minutes from notification of an Alert or higher event classification. Thus, to support the EOF consolidation, Duke Energy also requests to change the augmentation time of the 60 to 75 minute (from notification) responders at BSEP, HNP, and RNP to 75 minutes (from declaration). Similar to this request, all HNP and RNP 30 to 45 minute (from notification) responders are requested to be changed to 45 minutes (from declaration). BSEP does not have 30 to 45 minute responders.

The proposed change will revise the following emergency plans:

Station	Procedure	Title
BSEP	0ERP	Radiological Emergency Response Plan (ERP)
HNP	PLP-201	Emergency Plan
RNP	PLP-007	Robinson Emergency Plan

Catawba Nuclear Station (CNS) and McGuire Nuclear Station (MNS) have used a consolidated, dedicated EOF in Charlotte since 1987 and this has proven to be an effective method for implementation of nuclear station emergency plans. In 2006, the EOF for the Oconee Nuclear Station (ONS) was consolidated with the Charlotte EOF. In 2016 as part of the Part 52 licensing process and the issuance of combined licenses, the future EOF for William States Lee III Nuclear Station (WLS) was approved to be consolidated with the Charlotte EOF. The Charlotte EOF has been relocated twice since 1987, but has remained in Charlotte. It is currently located on the third floor of Phase 2 of the Energy Center at 526 South Church Street. In October 2015, it was upgraded and moved from the first floor to the third floor of the Energy Center. The upgraded facility includes:

- Increased overall size
- Over 50 new computers
- Three sub-areas within the main EOF Area, each with a large electronic display flat screen “knowledge wall”
- Rooms surrounding the main EOF Area for the major support functions (e.g. Dose Assessment, Offsite Communication, Offsite Monitoring) with glass walls and sufficient number of work stations to support a multiple-site event
- Video conferencing capability

Numerous drills and exercises, including multi-site scenarios in 2005 and 2011, have demonstrated that the Charlotte EOF can effectively manage emergency response. Furthermore, a recent actual event on March 6, 2016, occurred at ONS, in which an Alert was declared and augmentation was required at the Charlotte EOF. The event was successfully supported by the Charlotte EOF without failing any of its required functions. In addition, in March 2016, the 24-month rolling average Drill / Exercise Performance (DEP) indicator for the Charlotte EOF was 99.1% (2016 top quartile industry performance is 98.7%). The addition of BSEP, HNP, and RNP to the Charlotte EOF does not alter the existing facility or the practices of responders related to MNS, CNS, ONS, or the future WLS. However, MNS, CNS, ONS, and the future WLS are included in this amendment as affected dockets because approval of the existing Charlotte EOF was based on a total of

four sites. Note that WLS is not an operational facility and is not expected to be physically or operationally implemented into the Charlotte EOF for several years.

Prior to NRC approval of the proposed change, Duke Energy will conduct a two-site simultaneous drill (with NRC observation) involving at least one of the new sites. An additional drill (or drills) will be performed to test the functionality of the Charlotte EOF with the remaining untested new sites prior to their implementation into the Charlotte EOF. Furthermore, the multi-site event is tested at the Charlotte EOF on a periodic basis. The ONS Emergency Plan includes a requirement to perform a two-site drill every 6 years. To support the continued adequacy of this two-site requirement after the addition of BSEP, HNP, and RNP to the Charlotte EOF, a historical search of emergency declarations was performed. A sample period of approximately 10 years was selected (January 1, 2006 to March 30, 2016). This time period was selected to provide an adequate number of data points but to also be representative of current performance. The search consisted of any emergency declaration (Notice of Unusual Event or higher) for the six Duke Energy sites that will be combined into the requested consolidated EOF. Although activation of the EOF at the Duke Energy sites is only required for Alert or higher classifications, Notice of Unusual Events (NOUE) were included as added conservatism. The search resulted in a total of 32 events (24 NOUE, 8 Alert). There were no instances of two events occurring on the same day. The closest two events were 2 days apart (a BSEP NOUE on March 26, 2010, followed by an RNP Alert on March 28, 2010).

Additional changes requested within this amendment are to change the ONS Emergency Plan by decreasing the frequency for a multi-site drill from once per 6 years to once per 8 years and allowing the multi-site drill performance with sites other than ONS, MNS, or CNS (the ONS Emergency Plan currently specifies these three sites). The proposed 8 year frequency aligns with the 8 year exercise cycle described in 10 CFR 50 Appendix E, Section IV.F.2.j. The ONS 6 year frequency was created prior to establishment of the 8 year exercise cycle in 10 CFR Appendix E (2011 rule change). The 2011 rule change (FR 72590) established an 8 year frequency versus a 6 year frequency in order to preserve variability of scenario challenges, considering the new scenario content requirements that were also included in the rule change. Similarly, extending the ONS multi-site drill frequency would aid in preserving variability of scenario challenges. If the 6 year frequency is maintained, eventually there would be two multi-site drills required to be performed in one 8 year cycle. Lastly, this frequency change request is further supported by the successful performance of the two multi-site drills since inception of the requirement (drills in 2005 and 2011). The new multi-site drill requirement would also allow performance of the drill with any two sites that the Charlotte EOF supports and the requirement would be moved from the ONS Emergency Plan into the procedure governing Duke Energy Emergency Preparedness drill performance. Performance of the drill with any two sites does not diminish or alter the quality of testing the ability of the Charlotte EOF to respond to simultaneous events. Furthermore, movement of the requirement from the Emergency Plan to a procedure will continue to ensure the drill is performed and any changes to the requirement will continue to be evaluated under 10 CFR 50.54(q).

The final change requested within this amendment is to decrease the frequency of the unannounced augmentation drill at BSEP from twice per year to once per year. The purpose of an augmentation drill is to demonstrate timely personnel response to their assigned emergency response facility. The augmentation drill frequency was previously increased from once per two years to twice per year as a result of a violation with associated White finding for failure of timely augmentation during an Alert declared on June 6, 2010



(Reference 8). This event revealed a vulnerability in which the augmented ERO at BSEP may not have had the capability to respond to an emergency event within the required timeframe. Corrective actions included changing the ERO callout methodology from an on-duty minimum staffing response to an all-call/all-come response, and the frequency of augmentation drills was increased as previously described. Since the implementation of the corrective actions, BSEP has not failed timely augmentation during an augmentation drill or actual event. The BSEP ERO augmentation performance over this greater than 5 year time period demonstrates that the ERO does have the capability to augment the on-site ERO within the required timeframe; therefore, the vulnerability no longer exists. Note that this request does not change the all-call/all-come callout methodology and the resulting frequency (once per year) is still greater than the frequency prior to the June 6, 2010 event (once per two years). For these reasons, it is not expected that the requested change would adversely affect current augmentation performance.

### 3.0 TECHNICAL EVALUATION

NUREG-0696, *Functional Criteria for Emergency Response Facilities* (as updated by NSIR/DPR-ISG-01, *Emergency Planning for Nuclear Power Plants*), provides an acceptable method of complying with 10 CFR 50, Appendix E, Section IV.E.8. Sections 3.1 through 3.9 below utilize the NUREG-0696 guidance to demonstrate acceptability of the Charlotte EOF. With regard to the current licensing basis, Enclosures 3, 5, and 7 contain the site emergency plans including the markups associated with the proposed EOF consolidation and response time changes.

#### 3.1 Functions

Upon consolidation with the BSEP, HNP, and RNP EOFs, the Charlotte EOF will have the following facilities and capabilities for:

##### 1. Management of overall licensee emergency response

The Charlotte EOF has functioned as a consolidated EOF for CNS, MNS, and ONS since 2006. In that time, the EOF staff has successfully demonstrated the ability to manage emergency response in several evaluated exercises and numerous drills. A recent actual event on March 6, 2016 also demonstrated this ability, as discussed in Section 2 above. Duke Energy has well-established procedures and practices in place for emergency management that will continue to be used after the proposed consolidation of BSEP, HNP, and RNP EOFs with the Charlotte EOF. While revisions to some EOF-related procedures are anticipated, the consolidation will not alter the overall approach to emergency response.

However, it is noted that to aid in smooth EOF operations, Duke Energy intends to standardize the ERO across the six Duke Energy sites prior to the proposed EOF consolidation. Examples of standardization include aligning position titles, responsibilities, and other nomenclature. Upon standardization, the EOF will be the primary facility for dose assessment, with the TSC as backup. Responsibility for event classification will remain in the TSC. If the EOF becomes unavailable during an event, the site TSCs will have the capability to classify the event, notify offsite agencies, perform dose assessment, and determine protective action recommendations (PARs) for the public. Because the standardization is not required for EOF consolidation and will

not require NRC approval, any associated changes to the emergency plans are not reflected in the enclosures to this amendment.

2. Coordination of radiological and environmental assessment

Upon implementation of the proposed consolidation, the Charlotte EOF staff will continue to coordinate site field team activities and perform dose assessments. Communication and dose assessment capabilities are discussed in Sections 3.6 and 3.8.

3. Determination of recommended public protective actions

Upon implementation of the proposed consolidation, the Charlotte EOF staff will continue to make PARs to offsite agencies based upon plant conditions or dose projections. Procedures with plant-specific guidance will continue to be used in making PARs. Because the PARs associated with BSEP, HNP, and RNP are different than those of CNS, MNS, and ONS, the appropriate EOF personnel will receive additional training on PAR determination prior to EOF consolidation.

4. Notification of offsite agencies

The Charlotte EOF staff currently makes notifications to State and local agencies during emergencies, drills, and exercises for CNS, MNS, and ONS. These messages include initial notifications, changes in emergency classification or PARs, and periodic updates. Upon implementation of the proposed EOF consolidation, these notifications for BSEP, HNP, and RNP will be made from the Charlotte EOF. The Charlotte EOF has a sufficient number of workstations and personnel designated to communicate with offsite agencies in order to support communications for more than one site simultaneously. The primary communication system used is the Duke Emergency Management Network (DEMNET). DEMNET and other methods are further described in Section 3.6.

5. Coordination of event, plant, and response information provided to public information staff for dissemination to the media and public

Upon implementation of the proposed consolidation, the Charlotte EOF staff will continue to provide event, plant, and response information to public information staff for dissemination to the media and public through the appropriate Joint Information Center (JIC). The corporate JIC, which serves as the near-site JIC for CNS and MNS, is located in the same Energy Center building as the Charlotte EOF. ONS has a separate near-site JIC that works together with the corporate JIC to disseminate information to the public. BSEP, HNP, and RNP also each have near-site JICs. Duke Energy intends to align JIC operations such that, in an exercise or emergency, the corporate EOF and JIC in Charlotte provide the support necessary to gather, assess, and send internal and external information in draft form to the affected local JIC(s) for approval (currently at BSEP, HNP, and RNP, the EOF provides the approval). All JICs (corporate and near-site) will disseminate the information using the channels available to them. The intended change of JIC operations is not required but is anticipated prior to the proposed EOF consolidation. Any associated changes to the emergency plans are not reflected in the enclosures to this amendment.

6. Staffing and activation of the facility within time frames and at emergency classification levels defined in the licensee emergency plan

The Charlotte EOF staff currently augment at the EOF for a classification level of Alert or higher and will continue to do so upon implementation of the proposed consolidation. This is consistent with the BSEP, HNP, and RNP emergency plans.

Regarding response time, the emergency plans for BSEP, HNP, and RNP currently require augmentation of the near-site EOFs within 60 to 75 minutes from the time the ERO is notified of an emergency. This requirement is not consistent with the current Duke Energy requirement to augment the Charlotte EOF within 75 minutes of emergency declaration at CNS, MNS, or ONS. Thus, as part of this amendment, Duke Energy requests to change the augmentation time of the 60 to 75 minute responders (from notification) at BSEP, HNP, and RNP to 75 minutes (from declaration). To maintain consistency between the augmenting facilities and with the current practice of CNS, MNS, and ONS, this request applies to all current 60 to 75 minute responders, regardless of the response facility (i.e. EOF, TSC, or OSC). The justification for this change in augmentation time is provided below:

- 1) Because the reference start time is different, the actual requested change in total augmentation time is less than 15 minutes and considered minimal. A period of time is required from the time an event is declared to the time that the responders are notified. Taking the most conservative limit in the 60 to 75 minute range, the current required augmentation time from declaration is 60 minutes plus the time needed to notify responders.
- 2) The current licensing basis in the BSEP, HNP, and RNP emergency plans provides an acceptable response range of 60 to 75 minutes from notification. Increasing the lower value of the range is a non-conservative change to the emergency plan, which is the reason for this NRC request. However, the response range of 60 to 75 minutes also shows that a 75 minute response time is acceptable. Furthermore, the currently acceptable 75 minute response time from notification is longer than the requested 75 minutes from declaration.
- 3) The BSEP, HNP, and RNP on-shift staffing analyses (OSSA) show that on-shift responders can appropriately respond to an emergency without an augmented staff for a time of up to 90 minutes. The requested 75 minute augmentation time continues to provide margin above and beyond response capabilities of the on-shift staff.
- 4) There is precedence in the acceptability of the 75 minute augmentation time from declaration. It is the current approved augmentation time for the CNS, MNS, ONS, and Grand Gulf Nuclear Station (GGNS). See Section 4.2 for further details on precedent.

Similar to the above request for 60 to 75 minute responders, all HNP and RNP 30 to 45 minute (from notification) responders are requested to be changed to 45 minutes (from declaration). BSEP does not utilize 30 to 45 minute responders. The amount of time change and the change in reference start time is the same as above, thus the justification above applies to this change. The precedence also applies, as CNS, MNS, ONS, and GGNS currently utilize 45 minute responders.

7. Coordination of emergency response activities with Federal, State, tribal, and local agencies

All six Duke Energy sites currently coordinate emergency response activities with Federal, State, and local agencies using the Duke Emergency Management Network (DEMNET). When consolidated with the Charlotte EOF, DEMNET will continue to be used to communicate with the appropriate agencies associated with BSEP, HNP, and RNP. NRC Emergency Telecommunications System (ETS) telephones are also provided in the Charlotte EOF. The ETS, DEMNET, and other communication methods are further described in Section 3.6. In addition, in accordance with 10 CFR 50.47(b)(3), space is available in the Charlotte EOF for State and Federal responders. These responders currently locate to the Charlotte EOF for CNS, MNS, and ONS. There is a dedicated conference room for the NRC and there is dedicated space for North Carolina and South Carolina representatives in the main EOF Area, the Radiological Assessment Area, and the Offsite Monitoring Area. Local agencies do not currently respond to BSEP, HNP, or RNP EOFs, and that is expected to remain the same upon EOF consolidation.

8. Locating NRC and offsite agency staff closer to a site if the EOF is greater than 25 miles from the site. Minimum provisions at this location should include the following items: conference area with whiteboards, separate areas suitable for briefing and debriefing response personnel, telephones, site ERO contact lists, computers with internet access, access to a copier and office supplies, and radiation monitoring capability

Duke Energy will establish a near-site response location for each affected reactor site prior to implementation of the proposed change. The location and characteristics of each site's facility are listed in Table 3-1 below. Procedural guidance will ensure the near-site facilities are made operational and available in a timely manner for the NRC and offsite agencies.

**Table 3-1  
 Near-Site Response Location**

Facility Characteristic	Reactor Site		
	Brunswick	Harris	Robinson
Location	Duke Energy Progress Building Leland, NC	Harris E&E Center, New Hill, NC	Remote Emergency Response Facility Hartsville, SC
Distance from reactor site (approximate air miles)	20	2	7
Distance from Charlotte EOF (approximate air miles)	172	112	74
Conference area with whiteboards	Yes	Yes	Yes
Separate briefing/debriefing area	Yes	Yes	Yes
Telephones available	Yes	Yes	Yes
ERO telephone contact lists	Yes	Yes	Yes
Computers with internet access	Yes	Yes	Yes
Access to photocopier	Yes	Yes	Yes
Office supplies available	Yes	Yes	Yes
Radiation monitoring capability (i.e. access to plant radiological information)	Yes	Yes	Yes

- Obtaining and displaying key plant data and radiological information for each unit or plant the EOF serves

Data acquisition for BSEP, HNP, and RNP will be achieved through a proxy server connected to the protected plant communication voice and data networks. This information can be displayed on screens in the Charlotte EOF. Screens are available such that information from more than one site can be displayed. See Sections 3.7 and 3.8 for further details.

- Analyzing plant technical information and providing technical briefings on event conditions and prognosis to licensee staff and offsite agency responders for each type of unit or plant

The Charlotte EOF will have the capability to access key plant parameters from BSEP, HNP, and RNP as described in Sections 3.7 and 3.8. Knowledge of these parameters allows the EOF staff to assess the severity of an accident, project the accident's course, and provide utility management with information needed for mitigation, recovery, and protective action recommendations. The Charlotte EOF has a sufficient number of workstations to monitor conditions at more than one site simultaneously. The Charlotte EOF is also equipped with conference rooms for technical briefings of licensee staff and

offsite agency responders. Telephone conferencing capability is available for briefing responders not located in the EOF.

11. Effectively responding to and coordinating response efforts for events occurring simultaneously at more than one site for a consolidated EOF

Duke Energy intends to maintain the current Charlotte EOF ability to support simultaneous events at up to two sites. The ONS Emergency Plan includes a requirement to perform a two-site drill every 6 years. The Charlotte EOF is equipped with facilities to monitor and analyze events at more than one site. A sufficient number of workstations are available for data retrieval and the facility has adequate display capability to simultaneously present this information to the EOF staff. In addition, the capability is provided to support communications to offsite agencies for more than one event. If Charlotte EOF must respond to an event at more than one site simultaneously, the normal EOF staff complement is augmented with additional personnel as needed.

The Charlotte EOF currently assumes the above 11 functions for CNS, MNS, and ONS during drills, exercises, and actual emergencies. Consequently, the ERO personnel assigned to the EOF are experienced in the management of emergency response. Furthermore, an advantage of being located in the Energy Center is that the Charlotte EOF ERO staff includes the expertise of Duke Energy corporate personnel. This includes important groups such as Fleet Emergency Preparedness, Radiological Engineering, Safety Analysis, and Probabilistic Risk Assessment as well as individuals who have a wide range of expertise. Nevertheless, the staff will receive training on the applicable characteristics of each added station prior to implementation of the consolidated EOF. This training will include instruction on the reactor technologies involved (boiling and pressurized water reactors), differences in the radiological and environmental characteristics of the newly added stations, and the determination of protective action recommendations. In addition, periodic training will be provided in accordance with the emergency plans in order to maintain proficiency in emergency response.

Because CNS, MNS, and ONS have utilized a consolidated EOF in Charlotte for many years, the EOF staff is experienced in the coordination of emergency response activities with offsite agencies. Duke Energy does not anticipate that the additional stations will have an adverse effect on that coordination. To further aid in smooth EOF operations, Duke Energy intends to standardize the ERO across the six Duke Energy sites prior to the proposed EOF consolidation (see Section 3.1.1 above).

### 3.2 Location, Structure, and Habitability

The Charlotte EOF is further than 10 miles from any of the Duke Energy nuclear stations. Thus, EOF functions would not be interrupted during radiation releases for which it was necessary to recommend protective actions for the public to offsite officials. In addition, there are no specific NUREG-0696 habitability criteria for the EOF, and a backup facility is not required. The Charlotte EOF is located in Phase 2 of the Energy Center at 526 South Church Street, Charlotte, North Carolina. The EOF is part of the Nuclear General Office complex which allows corporate support and management personnel to rapidly staff the facility.

Phase 2 of the Energy Center is capable of withstanding wind loads and live loads equal to or greater than those specified in the current 2012 North Carolina State Building Code

(which is based on the 2009 International Building Code). Access to the Energy Center is continually controlled by a contracted security service. Access to the EOF itself is controlled by a monitored electronic card reader process that allows entry only to authorized personnel. In addition, processes are in place to upgrade EOF security during activation. The contract security service is alerted by the ERO Notification System (ERONS) and report to the EOF. Per their post orders, they will monitor the use of the card reader for access.

Two utility circuits feed the Energy Center Phase 2 where the EOF is located. Primary power is provided by commercial power. All electrical outlets, HVAC, lighting fixtures, and the wiring closet that supports both the voice and data communications in the Energy Center EOF have backup power available. Thus, a loss of commercial power would not impact any of the voice or data communications equipment located in the EOF. All common Duke Energy telecom infrastructures that support EOF functions, including, but not limited to, fiber optic transmission equipment, telephone switching equipment and data network routers, is configured to operate from at least one and usually multiple backup power sources in the event of a loss of commercial power. These backup sources include generator, DC battery and uninterruptable power supply (UPS) systems.

### 3.3 Staffing and Training

Incorporation of the BSEP, HNP, and RNP EOFs into the Charlotte EOF will not adversely affect the ability of the EOF to be staffed in a timely manner. The facility will be staffed with experienced EOF personnel from the Duke Energy corporate office in Charlotte as well as personnel from the nearby Catawba and McGuire Nuclear Stations. The EOF staff has demonstrated their ability to staff the EOF within 75 minutes of event declaration during annual augmentation drills. The EOF staff currently includes personnel to manage overall licensee emergency response, coordinate radiological and environmental assessment, determine recommended public protective actions, and interface with offsite officials. These functions will continue to be performed after the implementation of the proposed consolidation.

The Charlotte EOF staff is currently proficient in emergency response for CNS, MNS, and ONS. As discussed in Section 3.1 above, the Charlotte EOF staff will receive BSEP, HNP, and RNP specific training prior to implementation of the consolidated EOF.

### 3.4 Size

The total usable space of the Charlotte EOF is approximately 8939 square feet, with approximately 7658 square feet being working space. Based on the 75 square foot per person guidance of NUREG-0696, this provides enough space for approximately 100 personnel. After implementation of the ERO standardization previously mentioned, the expected number of EOF personnel during an event will be approximately 50, including State and NRC responders.

Space is allocated for accident assessment, radiation assessment, offsite monitoring, offsite communications, command and control, conferences, NRC team, and storage. Space is not required for EOF data system equipment to transmit data to other locations. Data transmittal comes from the sites. Space is sufficient for service of equipment, displays, and instrumentation performed on site. Phones and special communications equipment are provided as needed throughout the facility at personnel work stations. Individuals needing access to plant data are provided access via personal computers (PCs). Space is provided

for ready access to functional displays of EOF data through use of computer monitors, knowledge walls, and video display monitors.

### 3.5 Radiological Monitoring

The Charlotte EOF is further than 10 miles from any Duke nuclear station. Consequently, no specific habitability criteria described in Section 4.2, Table 2, of NUREG-0696 are applicable.

### 3.6 Communications

The Charlotte EOF has reliable voice communication facilities to Technical Support Centers, station Control Rooms, the NRC, State and local emergency operations centers, NSSS suppliers, the Federal Emergency Management Agency, the US Department of Energy, and Joint Information Centers. The existing communications systems which will also be used for BSEP, HNP, and RNP include the following:

- Duke installed telephone system (to manage licensee emergency response resources and communications with BSEP, HNP, and RNP TSC Emergency Coordinators) with access to the Duke internal phone system, public switched network, and long distance
- DEMNET Notify phones (for providing State/County emergency notifications)
- DEMNET Decision Line phones (for discussion/coordination of protective action recommendations with the State and local emergency operations centers)
- Radio system for communication with field monitoring teams to coordinate radiological monitoring
- NRC Emergency Telecommunications System telephones (Emergency Notification System, Health Physics Network, Protective Measures Counterpart Link, Reactor Safety Counterpart Link, Management Counterpart Link, and Operations Center LAN)
- North Carolina Satellite Radio/Telephone (Westinghouse Series 1000)
- Facsimile (fax) transmission capability

The emergency communications systems at the Charlotte EOF are designed to ensure the reliable, timely flow of information between all parties having an emergency response role. DEMNET enables Control Rooms, TSCs, EOFs, Simulator Control Rooms, and alternate Emergency Response Facilities for the six Duke Energy nuclear plants in North Carolina and South Carolina to communicate with required Offsite Response Organizations and with each other. DEMNET will be the primary means of communicating changes in event classification, meteorological information, and protective action recommendations to the States and Counties. DEMNET is comprised of two paths of communication, a primary and an alternate mode. These paths of communication can be any type of internet connection (e.g., DSL, T-1 broadband) or satellite connectivity. The primary mode is usually a Local Area Network (LAN) connection. The alternate mode is via satellite uplink.

Existing commercial telephone service and fax will serve as the designated backup means of communications in the event of a DEMNET failure. Duke Energy has telecommunications capabilities that can provide access to long distance networks without having to go through a local telephone company switch. Long distance calls from the Charlotte EOF are routed through Duke Energy's corporate private branch exchange (PBX) in Charlotte directly to both a primary and a backup inter-exchange provider. Duke Energy also has connections to two providers for outbound local calls. Telephones are provided for the respective Federal and State representatives. Also, telephones for the NRC Emergency Telecommunications



System (ETS), the Emergency Notification System (ENS), and Health Physics Network (HPN), are available in the NRC work area. Six phones, in addition to those on the NRC ETS, are provided for NRC use, including one designated for the NRC Director of Site Operations. Three multifunction machines with fax capability are available in the EOF to support the transmission of information between the Emergency Response Facilities and with State, local, and Federal authorities.

Provisions for backup power are described in Section 3.2 above.

Duke Energy maintains an extensive private fiber optic network that serves to connect the Energy Center to each of Duke Energy's Nuclear Stations as well as to the public long distance network. This fiber optic network consists of survivable Synchronous Optical Network (SONET) rings with diversely routed fiber paths. Duke Energy maintains two independent connections to the Internet from two different service providers.

### 3.7 Instrumentation, Data System Equipment, and Power Supplies

A new plant communication voice and data network will be installed to provide secure access to display plant data for BSEP, HNP, and RNP. This new network is being installed under a separate initiative to comply with the Cyber Security Rule, 10 CFR 73.54. It will also meet the functional intent of the criteria described in NUREG-0696, Sections 4.7 and 4.8. Note that the emergency plan markups in Enclosures 3, 5, and 7 have included changes associated with this new voice and data network for information purposes only. This new network can be installed under 10 CFR 50.54(q) and thus the associated emergency plan changes are denoted in Enclosures 4, 6, and 8 as not requested for NRC approval.

As part of the new communication voice and data network, data acquisition will be achieved through a secure proxy server. The server will allow the EOF to access displays that are representative of the displays in the Control Room via the Duke Energy Wide and Local Area Networks (WAN and LAN). Duke Energy has established an availability goal for the LAN/WAN that exceeds the 0.01 unavailability goal identified in NUREG-0696. The Charlotte EOF will have access to the same data points that are available to the Operators in the Control Room and emergency responders in the TSC and OSC, including the Safety Parameter Display System (SPDS) data points. The Charlotte EOF video display system will display the graphics on screens in the main EOF Area.

The workstations and related LAN/WAN equipment require AC power to operate. A loss of AC power to the equipment, located at numerous locations throughout the Duke Energy system, will cause a loss of this capability. The LAN equipment housed within the Charlotte EOF is on backup power. The core network equipment in the Energy Center has backup power.

Since the Charlotte EOF is located offsite, its electrical equipment loads will not affect any safety related power source. Loss of primary commercial power would not cause loss of any stored data vital to EOF functions. Historical data from the site will be accessible from a historical data base. This information could be accessed by the Charlotte EOF, as needed, once power is restored to the LAN.

Commercial broadband connections are provided at approximately 30 locations to allow Offsite Response Organization responders to have access to the internet. All electrical

outlets, lighting fixtures, and HVAC loads in the new EOF are on generator backed-up power.

### 3.8 Technical Data and Data System

The Charlotte EOF will have the capability to receive, store, process, and display information needed to perform assessments of actual and potential offsite environmental consequences of an emergency at BSEP, HNP, and RNP. As part of the new communication voice and data network (described above in Section 3.7), a proxy server will allow the display of data points that cover Type A, B, C, D, and E variables discussed in NUREG-0696 Section 4.8. In addition, the meteorological variables required for dose assessment will be made available through the proxy server. This data will also be accessible from a historical data base. The new communication voice and data network will meet the functional intent of the criteria described in NUREG-0696, Sections 4.7 and 4.8.

Offsite dose assessment is performed for all operating Duke Energy sites using the Unified RASCAL Interface (URI). URI is a computer software intended for use at nuclear generating stations and other emergency response facilities in the event of an actual or potential release of airborne radioactivity to the environment at levels warranting declaration of an emergency specified in the Radiological Emergency Plan. URI is a replacement for the user interface normally delivered with the computer software Radiological Assessment System for Consequence Analysis ("RASCAL") maintained and distributed by the NRC.

### 3.9 Records Availability and Management

Hard copies of key reference materials for BSEP, HNP, and RNP will be maintained in the Charlotte EOF. In addition, station design documentation, plant drawings, procedures, etc. are available electronically via the local area network connection. Examples include:

- Plant Technical Specifications – accessed electronically
- Plant operating procedures – accessed electronically
- Emergency operating procedures – accessed electronically
- Final Safety Analysis Reports – accessed electronically
- Emergency plans – controlled hard copies of station emergency plans and State emergency plans (including site specific appendices)
- Offsite population distribution data – this is part of the emergency plans
- Evacuation plans – this is part of the emergency plans
- Licensee employee radiation exposure history – accessed electronically
- Drawings – accessed electronically

Hard copy records will be maintained by a controlled distribution process.

## 4.0 REGULATORY EVALUATION

### 4.1 Applicable Regulatory Requirements/Criteria

#### 4.1.1 Requirements and Guidance – EOF Relocation

10 CFR 50, Appendix E, IV.E.8.b requires a licensee desiring to locate an EOF more than 25 miles from a nuclear reactor site to request prior Nuclear Regulatory Commission

approval by submitting an application for an amendment to its license. For the purposes of the proposed change, this requirement clearly applies because the consolidated EOF in Charlotte exceeds the 25-mile limit as described in Section 2. In addition, a backup facility to the Charlotte EOF is not required because this regulation only requires a backup for EOFs that are less than 10 miles from the site.

Section IV.E.8.b of Appendix E also requires that, for an EOF located more than 25 miles from a nuclear reactor site, provisions be made for locating NRC and offsite responders closer to the reactor site to facilitate face-to-face interaction with emergency personnel entering and leaving the site. This regulation also describes the requirements for space and equipment:

- Space for members of an NRC site team and Federal, State, and local responders
- Additional space for conducting briefings with emergency response personnel
- Communication with other licensee and offsite emergency response facilities
- Access to plant data and radiological information
- Access to copying equipment and office supplies

Utilizing the clarification of the above items contained in NSIR/DPR-ISG-01, near-site response locations will be established to meet this requirement, as described in Section 3.1.8 above.

Section IV.E.8.c of Appendix E establishes requirements for data acquisition and display, technical analysis of event conditions, and support response for multiple reactor sites. Compliance with these requirements, as applicable to the proposed change, is discussed in Sections 3.1-3.9 above.

10 CFR 50.47(b)(1) requires that primary responsibilities of emergency response for the licensee, State, local, and supporting organizations have been assigned/established and each organization has staff to respond and to augment on a continuous basis. Compliance with this requirement is discussed in Sections 3.1.7 and 3.3 above.

10 CFR 50.47(b)(3) requires that arrangements to accommodate State and local staff at the licensee's Emergency Operations Facility (EOF) have been made. Compliance with this requirement is discussed in Section 3.1.7 above.

10 CFR 50.47(b)(8) requires that adequate emergency facilities and equipment to support the emergency response are provided and maintained. After the proposed consolidation, BSEP, HNP, and RNP will each still have an EOF from which effective direction can be given and effective control can be exercised during an emergency. Furthermore, the Charlotte EOF meets the EOF criteria in NUREG-0696, as discussed below.

10 CFR 50.47(b)(9) requires that adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use. This requirement is encompassed in the EOF criteria in NUREG-0696, as discussed below.

Section 4 of NUREG-0696 provides guidance on the overall criteria for the EOF:

- Functions
- Location, structure, and habitability
- Staffing and training
- Size

- Radiological monitoring
- Communications
- Instrumentation, data system equipment, and power supplies
- Technical data and data system
- Records availability and management

Compliance with these criteria, as applicable to the proposed change, is discussed in Sections 3.1-3.9 above.

NUREG-0696 expands on the Function criteria by providing the following requirements (this is the expanded list included in NSIR/DPR-ISG-01):

- Management of overall licensee emergency response
- Coordination of radiological and environmental assessment
- Determination of recommended public protective actions
- Notification of offsite agencies
- Coordination of event, plant, and response information provided to public information staff for dissemination to the media and public
- Staffing and activation of the facility within time frames and at emergency classification levels defined in the licensee emergency plan
- Coordination of emergency response activities with Federal, State, tribal, and local agencies
- Locating NRC and offsite agency staff closer to a site if the EOF is greater than 25 miles from the site
- Obtaining and displaying key plant data and radiological information for each unit or plant the EOF serves
- Analyzing plant technical information and providing technical briefings on event conditions and prognosis to licensee staff and offsite agency responders for each type of unit or plant
- Effectively responding to and coordinating response efforts for events occurring simultaneously at more than one site for a consolidated EOF

Compliance with each of these items is discussed in Section 3.1 above.

#### 4.1.2 Requirements and Guidance – Change in Augmentation Time

10 CFR 50.47(b)(2) requires that timely augmentation of response capabilities is available. Section 3.1.6 above describes why the augmentation time will continue to be timely after the proposed change.

In Regulatory Guide 1.101, *Emergency Response Planning and Preparedness for Nuclear Power Reactors*, the NRC has endorsed the use of NUREG-0654, *Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, as a method to comply with the requirements of 10 CFR 50.47. NUREG-0654, Section II, Evaluation Criteria II.B.5 states:

“The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1.”

NUREG-0654 Table B-1 recommends that there be, in addition to on-shift personnel, 30-minute and 60-minute responders. As described in Section 3.1.6 above, both the approved emergency plans (60-75 min) and the OSSA (90 min) have established acceptable augmentation times that bound the requested 75 minute response time from event declaration. Thus, the proposed change continues to meet the intent of NUREG-0654 Table B-1 because the requested response time is still short enough to relieve the on-shift staff and ensure that the required emergency response functions are maintained.

Draft regulatory issue summary (RIS) "License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation" issued in 81 FR 13849 on March 15, 2016, was also reviewed for the development of the justification for augmentation response time change. The major objectives of the RIS were to explain that the NEI 10-05 OSSA cannot be solely relied upon to justify staffing changes and also to provide examples of acceptable level of detail for the justification. Section 3.1.6 utilizes the OSSA as only one of four main topics presented in the justification, thus it does not rely solely on the OSSA. Furthermore, the draft RIS recognizes that

"An on-shift staffing review using NEI 10-05 should ensure sufficient on-shift staff exists to perform all necessary EP functions and capabilities until augmenting ERO staff arrives, in accordance with the site's emergency plan commitments."

This is consistent with how the OSSA was used in Item 3 of Section 3.1.6. Secondly, the examples in the draft RIS were not directly applicable to the situation of this amendment in which all augmentation responders are being changed by a minimal amount of time that is also within the current acceptable response time range provided in the emergency plan (Items 1 and 2 of Section 3.1.6).

#### 4.1.3 Requirements and Guidance – Change in Multi-site Drill Frequency/Site

10 CFR 50.47(b)(14) requires that periodic drills be conducted to develop and maintain key skills.

NUREG-0696 (as revised by NSIR/DPR-ISG-01) provides the following guidance:

"In order to function effectively, the EOF staff personnel must be aware of their responsibilities during an accident. To maintain proficiency, the EOF staff shall participate in EOF activation drills, which shall be conducted periodically in accordance with the licensee's emergency plan. These drills shall include operation of all facilities that will be used to perform the EOF functions, including any support facilities located outside the EOF. Prior to the initial operation of a co-located or consolidated EOF and in at least one drill or exercise per exercise cycle thereafter, the EOF staff will demonstrate the ability to perform the additional co-located or consolidated EOF functions set forth in Subsection 4.1."

The proposed change resulting in a once per 8 year multi-site drill frequency and allowance of that drill to be performed with sites other than ONS, MNS, or CNS will continue to meet the above requirements and guidance.

#### 4.1.4 Requirements and Guidance – Change in BSEP Augmentation Drill Frequency

10 CFR 50.47(b)(14) requires that periodic drills be conducted to develop and maintain key skills.

10 CFR 50, Appendix E, IV.F.2.b requires that actions are taken to ensure that adequate emergency response capabilities are maintained during the interval between biennial exercises by conducting drills, including at least one drill involving a combination of some of the principal functional areas of the licensee's onsite emergency response capabilities.

The proposed change resulting in one augmentation drill per year for BSEP will continue to meet the above requirements.

#### 4.2 Precedent

Applicable precedent with regard to a six-site EOF is that of Exelon, which supports the Braidwood, Byron, Clinton, Dresden, LaSalle and Quad Cities stations. Clinton was the last site to be consolidated, which was approved by the NRC in Reference 5. All six Exelon sites are greater than 25 miles from the EOF, ranging from approximately 29 to 118 miles.

Applicable precedent with regard to the change in augmentation time is that of CNS, MNS, ONS, and GGNS. These sites utilize the concept of 45/75 minute response from declaration, as opposed to the (30-45)/(60-75) minute response from notification of BSEP, HNP, and RNP. Relevant NRC approval letters are listed in References 6 and 7. Although the specific ERO positions which respond in 45 or 75 minutes may vary among the subject sites, that does not diminish the applicability of this precedent. This amendment proposes to change the response times of all positions equally, thus maintaining the currently approved position structure.

#### 4.3 No Significant Hazards Consideration Determination

Duke Energy Progress, Inc., referred to henceforth as "Duke Energy", is submitting a request to consolidate the Emergency Operations Facilities (EOFs) for Brunswick Steam Electric Plant, Unit Nos. 1 and 2 (BSEP), Shearon Harris Nuclear Power Plant, Unit 1 (HNP), and H. B. Robinson Steam Electric Plant, Unit No. 2 (RNP) with the Duke Energy corporate EOF (hereafter referred to as the Charlotte EOF) in Charlotte, North Carolina. The Charlotte EOF is currently being used as the EOF for Catawba Nuclear Station (CNS), McGuire Nuclear Station (MNS), and Oconee Nuclear Station (ONS) and has been approved for future use as the EOF for William States Lee III Nuclear Station (WLS). In addition, Duke Energy also requests to change the BSEP, HNP, and RNP augmentation times to be consistent with that of the sites currently supported by the Charlotte EOF. All 30 to 45 minute (from notification) responders will change to 45 minutes (from declaration). All 60 to 75 minute (from notification) responders will change to 75 minutes (from declaration). It is also requested to decrease the frequency for a multi-site drill from once per 6 years to once per 8 years and allow the multi-site drill performance with sites other than ONS, MNS, or CNS. Finally, it is requested to decrease the frequency of the unannounced augmentation drill at BSEP from twice per year to once per year.

Duke Energy has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed changes relocate the BSEP, HNP, and RNP EOFs from their present onsite or near-site locations to the established corporate EOF in Charlotte, North Carolina, changes the required response times for supplementing onsite personnel in response to a radiological emergency, decreases the multi-site drill frequency, allows the multi-site drill to be performed with sites other than ONS, MNS, or CNS, and decreases the frequency of augmentation drills at BSEP. The functions and capabilities of the relocated EOFs will continue to meet the applicable regulatory requirements. It has been evaluated and determined that the change in response time does not significantly affect the ability to supplement the onsite staff. In addition, analysis shows that the onsite staff can acceptably respond to an event for longer than the requested time for augmented staff to arrive. The proposed changes have no effect on normal plant operation or on any accident initiator or precursors, and do not impact the function of plant structures, systems, or components (SSCs). The proposed changes do not alter or prevent the ability of the emergency response organization to perform its intended functions to mitigate the consequences of an accident or event.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed changes only impact the implementation of the affected stations' emergency plans by relocating their onsite or near-site EOFs to the established corporate EOF in Charlotte, North Carolina, changing the required response time of responders who supplement the onsite staff, decreasing the multi-site drill frequency, allowing the multi-site drill to be performed with sites other than ONS, MNS, or CNS, and decreasing the frequency of augmentation drills at BSEP. The functions and capabilities of the relocated EOFs will continue to meet the applicable regulatory requirements. It has been evaluated and determined that the change in response time does not significantly affect the ability to supplement the onsite staff. In addition, analysis shows that the onsite staff can acceptably respond to an event for longer than the requested time for augmented staff to arrive. The proposed changes will not change the design function or operation of SSCs. The changes do not impact the accident analysis. The changes do not involve a physical alteration of the plant, a change in the method of plant operation, or new operator actions. The proposed changes do not introduce failure modes that could result in a new accident, and the changes do not alter assumptions made in the safety analysis.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed changes only impacts the implementation of the affected stations' emergency plans by relocating their onsite or near-site EOFs to the established corporate EOF in Charlotte, North Carolina, changing the required response time of responders who supplement the onsite staff, decreasing the multi-site drill frequency, allowing the multi-site drill to be performed with sites other than ONS, MNS, or CNS, and decreasing the frequency of augmentation drills at BSEP. The functions and capabilities of the relocated EOFs will continue to meet the applicable regulatory requirements. It has been evaluated and determined that the change in response time does not significantly affect the ability to supplement the onsite staff. In addition, analysis shows that the onsite staff can acceptably respond to an event for longer than the requested time for augmented staff to arrive. Margin of safety is associated with confidence in the ability of the fission product barriers (i.e., fuel cladding, reactor coolant system pressure boundary, and containment structure) to limit the level of radiation dose to the public. The proposed changes are associated with the emergency plans and do not impact operation of the plant or its response to transients or accidents. The changes do not affect the Technical Specifications. The changes do not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed changes. Safety analysis acceptance criteria are not affected. The emergency plans will continue to provide the necessary response staff for emergencies as demonstrated by staffing and functional analyses including the necessary timeliness of performing major tasks for the functional areas of the emergency plans.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, Duke Energy concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

#### 4.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The proposed change would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact



statement or environmental assessment need be prepared in connection with the proposed change.

## 6.0 REFERENCES

1. USNRC, NUREG-0696, *Functional Criteria for Emergency Response Facilities*
2. USNRC, NUREG-0654, *Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*
3. USNRC, NSIR/DPR-ISG-01, *Emergency Planning for Nuclear Power Plants*
4. USNRC, Regulatory Guide 1.101, *Emergency Response Planning and Preparedness for Nuclear Power Reactors*
5. NRC letter, *Clinton Power Station, Unit 1 - Emergency Operations Facility (TAC No. MB1687)*, dated March 22, 2002 (ADAMS Accession No. ML020800179)
6. NRC letter, *Grand Gulf Nuclear Station, Unit 1, Proposed Emergency Plan Table 5-1 Changes (TAC No. MA1130)*, dated September 29, 2000 (ADAMS Accession No. ML003756919)
7. NRC letter, *Crisis Management Center*, dated July 30, 1991
8. Progress Energy letter, *Reply to Notice of Violation: EA-10-192*, dated January 18, 2011

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**Enclosure 2**

**Oconee Nuclear Station Emergency Plan Markup**

**N. Exercises and Drills**

To assure that periodic exercises are conducted to evaluate major portions of emergency response capabilities, that the results of exercises form the basis for corrective action for identified deficiencies and that periodic drills are conducted to develop and maintain key skills.

N.1a & N.1b Exercises

Exercises will be designed to meet the requirements of 10 CFR Part 50, Appendix E. An exercise will be designed to test the integrated capability of those involved and a major portion of the basic elements existing within the plans and organization. The scenario for the biennial exercise will be varied from year to year such that all major elements of the plans and organizations will be tested within an eight calendar-year cycle.

Once every 8 calendar year cycle, a back-shift exercise shall be held as follows:

- If held during a weekday, the exercise shall start between the hours of 6 p.m. and 4 a.m.
- If held during the weekend, the exercise may start at any hour.

N.2 Drills

Oconee Nuclear Station will conduct drills in accordance with requirements of 10CFR50, Appendix E. Drills shall be conducted to test, develop and maintain skills in a particular operation. Drills may be a component of an exercise. Drills will be conducted and evaluated by a designated drill director. Drills will be held in accordance with the following procedures:

- PD-EP-ALL-0800, "Drills and Exercises:
- AD-EP-ALL-0801, "Design and Development of Drills and Exercises"
- AD-EP-ALL-0802, "Conducting Drill and Exercises"
- AD-EP-ALL-0803, "Evaluation and Critique of Drills and Exercises"

a. Communication Drills

Communication check with NRC Headquarters shall be conducted monthly.

Communication check with State and local governments within the plume exposure pathway Emergency Planning Zone shall be conducted monthly.

Communications check with Government agencies within the ingestion pathway Emergency Planning Zone shall be conducted quarterly.

Communications between the ONS, state and local emergency operations centers and field monitoring teams shall be conducted annually.

- b. Fire Drills (Onsite-within Protected Area; Offsite-outside Protected area) shall be conducted as specified in site procedures and directives.
- c. Medical Emergency Drills medical emergency drill, involving a simulated externally contaminated injured individual, is required annually with participation by the Oconee Emergency Medical Service (Ambulance), Oconee Memorial Hospital and physicians.
- d. Station environs and radiological monitoring drills (on-site and off site) shall be conducted annually. These drills shall include collection and analysis of all sample media (e.g. water, vegetation, soil and air).
- e. Radiation Protection Drills shall be conducted semi-annually which involve response to and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements in the environment. Analysis of samples may be simulated in Radiation Protection drills.
- f. Site Assembly Drills are required to be held on a semi-annual basis.
- g. Activation Drills to test the recall response time of the emergency response organization after hours will be held once during the calendar year. (ONS commitment to the NRC revised 2/14/96)

- h. Multi-Station Event Drills to test the ability of the Common EOF to manage multi-station events involving activation of the emergency response organization and facilities, offsite notifications, dose assessment, and field monitoring team coordination will be conducted once every six years. This drill ~~will be rotated between participation with Catawba and McGuire.~~

eight

can be performed with any two sites that the Common EOF has the ability to support.

Move to Emergency Preparedness drill procedure.