

## **NRR-PMDAPEm Resource**

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**From:** Galvin, Dennis  
**Sent:** Tuesday, August 23, 2016 9:37 AM  
**To:** Arthur.Zaremba@duke-energy.com  
**Cc:** Joshua.Duc@duke-energy.com; Anderson, Joseph; Norris, Michael; Marshall, Amanda; Orf, Tracy; Markley, Michael  
**Subject:** Duke Energy Fleet Draft RAIs – License Amendment Request For Emergency Operations Facility (EOF) Consolidation (MF7650 to MF7660) (Corrected CAC)  
**Attachments:** Duke EOF Draft RAIs 2016-08-23.pdf

Art,

By letter dated April 29, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16120A076), Duke Energy Progress, Inc. and Duke Energy Carolinas, LLC, referred to henceforth as “Duke Energy,” submitted a license amendment request to, amongst other changes, consolidate the Emergency Operations Facilities (EOFs) for the former Progress Energy sites -- 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 existing Duke Energy Corporate EOF (hereafter referred to as the Duke Charlotte EOF). The Duke Charlotte EOF is currently located in the Duke Energy Center at 526 South Church Street in Charlotte, North Carolina (NC), and already serves as the consolidated EOF for Catawba Nuclear Station - Unit Nos. 1 and 2, McGuire Nuclear Station - Unit Nos. 1 and 2, and Oconee Nuclear Station - Unit Nos. 1, 2 and 3. [Note: Duke Energy is also requesting Commission approval as part of the combined license (COL) application for the proposed William States Lee III Nuclear Station (Lee) to incorporate the EOF for the Lee site into the existing Duke Charlotte EOF, which currently does not address addition of three former Progress Energy site in COL application.]

To complete its review, the NRC staff has the prepared requests for additional information (RAIs). Please see the attached RAIs in DRAFT form.

A Sensitive Unclassified Non-Safeguards Information (SUNSI) review was completed by the staff on the draft RAIs and the staff concluded the RAIs do not contain SUNSI. If you find any information needs to be withheld from the public, please notify me within 5 days of receipt of this email.

Please submit your response to these RAIs within 30 days of this email. If you need a clarification call for the attached draft RAIs, or you need to change the RAI response due date, please contact me at (301) 415-6256.

Respectfully,

Dennis Galvin  
Project Manager  
U.S Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
Division of Operating Reactor Licensing  
Licensing Project Branch 2-2  
301-415-6256

**Hearing Identifier:** NRR\_PMDA  
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**From:** Galvin, Dennis

**Created By:** Dennis.Galvin@nrc.gov

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**Options**

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**Recipients Received:**

DRAFT REQUEST FOR ADDITIONAL INFORMATION  
LICENSE AMENDMENT REQUEST FOR  
EMERGENCY OPERATIONS FACILITY CONSOLIDATION  
DUKE ENERGY PROGRESS, INC.  
DUKE ENERGY CAROLINAS, LLC  
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1  
DOCKET NO. 50-400  
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261  
BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-325, 50-324  
CATAWBA NUCLEAR STATION, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-413, 50-414  
MCGUIRE NUCLEAR STATION, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-369, 50-370  
OCONEE NUCLEAR STATION, UNIT NOS. 1, 2 AND 3  
DOCKET NOS. 50-269, 50-270, AND 50-287

By letter dated April 29, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16120A076), Duke Energy Progress, Inc. and Duke Energy Carolinas, LLC, referred to henceforth as “Duke Energy,” submitted a license amendment request to, amongst other changes<sup>[1]</sup>, 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 existing Duke Energy Corporate EOF (hereafter referred to as the Duke Charlotte EOF). The existing EOFs for BSEP and RNP are onsite, and the existing EOF for HNP is in the Harris Energy and Environmental Center approximately two miles (straight line distance) from the HNP site. The Duke Charlotte EOF is currently located in the Duke Energy Center at 526 South Church Street in Charlotte, North Carolina (NC), and already serves as the consolidated EOF for Catawba Nuclear Station - Unit Nos. 1 and 2, McGuire Nuclear Station - Unit Nos. 1 and 2, and Oconee Nuclear Station - Unit Nos. 1, 2 and 3 (ONS). The BSEP, HNP and RNP site are 184 miles, 110 miles and 69 miles (straight line distance) respectively, from the Duke Charlotte EOF. Per Section IV.E.8.b to Appendix E of Part 50 to Title 10 of the *Code of Federal*

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<sup>[1]</sup> In addition, Duke is requesting to change the BSEP, HNP, and RNP augmentation times to be consistent with that of the sites currently supported by the Duke Charlotte EOF. All 30 to 45 minute (from notification) responders will change to 45 minutes (from event declaration). All 60 to 75 minute (from notification) responders will change to 75 minutes (from event declaration). They are also asking to decrease the frequency of the unannounced augmentation drill at BSEP from twice per year to once per year.

*Regulations* (10 CFR 50), prior Commission approval is required for an EOF located more than 25 miles from a nuclear reactor site.

The NRC staff has determined that additional information is needed to continue the review as discussed below.

RAI 1:

(Pages 4-5) Enclosure 1, Section 2.0 of the submittal states:

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 Duke Charlotte EOF with the remaining untested new sites prior to their implementation into the Duke Charlotte EOF. Furthermore, the multi-site event is tested at the Duke Charlotte EOF on a periodic basis. The ONS Emergency Plan includes a requirement to perform a two-site drill every 6 years.

- a. Please identify the proposed date(s) and provide further details on the scope/extent of play for proposed drill to test the functionality of the Duke Charlotte EOF, involving simultaneous events at two sites, at least one of which will be a new (former Progress Energy site). [NOTE: Staff would suggest that the Brunswick site participate in drill to demonstrate ability of consolidated EOF to support events involving both pressurized water reactor (PWR) and boiling water reactor (BWR) technologies.]
- b. Please verify that the States of North Carolina and South Carolina will be offered the opportunity to participate, as appropriate, to verify their interfaces and coordination with the Duke Charlotte EOF for the addition of new sites.
- c. Please verify that in addition to the NRC, the Federal Emergency Management Agency (FEMA) will also be offered the opportunity to observe to verify continued adequacy of offsite emergency preparedness plans and preparedness.
- d. Please clarify the frequency for conducting a periodic drill involving simultaneous events at multiple sites to periodically test and verify functional capability of the Duke Charlotte EOF to support simultaneous events at multiple sites requiring EOF activation. Does Duke Energy plan to continue 2 year periodicity as described in the ONS Emergency Plan?

RAI 2:

(Pages 4-5) Enclosure 1, Section 2.0 of the submittal also states:

To support the continued adequacy of this two-site requirement after the addition of BSEP, HNP, and RNP to the Duke 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.

To ensure the adequacy of the scope for the historical search, please provide and describe the results for emergency declarations for all six proposed Duke sites that would require activation of the Duke Charlotte EOF, for the time period from the implementation of the existing emergency classification levels (under Revision 1 to NUREG-0654/FEMA-REP-1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November 1980 (ADAMS Accession No. ML040420012)) to March 30, 2016.

RAI 3:

(Page 6) Enclosure 1, Section 3.1 #4, "Notification of offsite agencies," of Enclosure 1 to the submittal states:

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.

(Page 9) Section 3.1 #10, "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," of Enclosure 1 to the submittal states:

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 Duke Charlotte EOF has the sufficient number of workstations to monitor conditions at more than one site simultaneously.

(Page 10) Section 3.1 #11, "Effectively responding to and coordinating response efforts for events occurring simultaneously at more than one site for a consolidated EOF," of Enclosure 1 to the submittal indicates that, "...Duke Energy intends to maintain the current Charlotte EOF ability to support simultaneous events at up to two sites..."

Section 3.1 #11 goes on to state:

The Charlotte EOF is equipped with facilities to monitor and analyze events at more than one site... and ...In addition, the capability is provided to support communications to offsite agencies for more than one event. If Duke 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.

On August 2-3, 2016, the NRC staff performed a walk down of the Duke Charlotte EOF. During the NRC staff's walk down, it was verbally indicated to the staff that the facility could support a simultaneous response for events at more than two sites. As identified above, Duke Energy describes processes and protocols for accommodating simultaneous responses at up to two sites. Please describe facility capabilities and what process and protocols have been established to support accommodating simultaneous responses at more than two sites. Include how Duke would further staff the facility, establish command and control, and effectively coordinate event response during multi-site simultaneous events.

RAI 4:

Page 2 of the submittal letter states:

This amendment requests increasing the number of sites supported by the Charlotte EOF from three to six. It is noted that a combined license (COL) application has been submitted to the NRC for William States Lee III Nuclear Station (WLS) that also proposes utilizing the Charlotte EOF. Subsequent to approval of this amendment and the WLS COL, Duke Energy recognizes that prior to commencing operation at WLS, an additional license amendment would need to be approved by the NRC regarding the addition of WLS to the six-site Charlotte EOF.

Based on the pending Commission's approval, under consideration as part of the WLS COL application, the EOF for the WLS would be incorporated into the existing Charlotte EOF, which only describes the existing Catawba, McGuire and Oconee sites. As such, based on Commission approval of the WLS COL application, Duke Energy will need to supplement its existing LAR submittal to address the addition of the WLS to support the staff continued evaluation.

During a July 14, 2016 planning and scheduling phone call, the staff and Duke Energy discussed the possibility of Duke Energy submitting a supplement to the existing April 29, 2016 LAR submittal if the WLS operating license is issued. Please clarify the time line for Duke Energy's submittal of a supplement to the existing April 29, 2016 LAR submittal if the WLS operating license is issued.