



**John A. Krakuszeski**  
Vice President  
Brunswick Nuclear Plant  
8470 River Rd SE  
Southport, NC 28461

o: 910.832.3698

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10 CFR 50.12  
10 CFR 50, Appendix E

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

Brunswick Steam Electric Plant, Unit Nos. 1 and 2  
Renewed Facility Operating License Nos. DPR-71 and DPR-62  
Docket Nos. 50-325 and 50-324

Subject: One-Time Exemption from 10 CFR 50, Appendix E, Section IV.F.2.d

Reference:

Letter from Randall L. Hecht, Chief Technological Hazards Branch, U.S. Department of Homeland Security Region IV (FEMA) to Michael A. Sprayberry, Director NC Division of Emergency Management, dated July 28, 2020.

Ladies and Gentlemen:

In accordance with 10 CFR 50.12, "Specific exemptions," paragraphs (a)(2)(iii) and (a)(2)(v), Duke Energy Progress, LLC (Duke Energy), requests a one-time exemption for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, from the requirements of 10 CFR 50, Appendix E, Section IV.F.2.d. Specifically, Duke Energy requests a one-time schedular exemption from the requirement for the State of North Carolina to participate in the ingestion pathway portion of an exercise at least once every exercise cycle. The current 8-year exercise cycle for BSEP ends on December 31, 2021.

In a letter dated July 28, 2020 (i.e., Reference), the Federal Emergency Management Agency (FEMA), in consultation with the Nuclear Regulatory Commission (NRC), Region II, approved a request from the State of North Carolina to postpone the ingestion pathway portion of the December 1, 2020, BSEP Emergency Plan Exercise to July 26-27, 2022. The need for this postponement arose from the Coronavirus Disease 2019 (COVID-19) public health emergency (PHE). As a result of this postponement, State participation in an ingestion pathway portion of an exercise will exceed the current nominal 8-year cycle.

Enclosure 1 provides justification for the proposed exemption. Enclosure 2 provides the referenced FEMA approval letter.

This document contains no new regulatory commitments. Please refer any questions regarding this submittal to Mr. Lee Grzeck, Manager – Nuclear Fleet Licensing (Acting), at (980) 373-1530.

Sincerely,

A handwritten signature in black ink, appearing to read "John A. Krakuszeski". The signature is fluid and cursive, with the first name "John" being the most prominent part.

John A. Krakuszeski

MAT/mat

Enclosures:

1. One-Time Exemption from 10 CFR 50, Appendix E, Section IV.F.2.d
2. FEMA Letter to the State of North Carolina - Approval of Deferral of Ingestion Pathway Participation

cc:

Ms. Laura Dudes, Regional Administrator, Region II  
Mr. Luke Haeg, Project Manager  
Mr. Gale Smith, NRC Senior Resident Inspector  
Chair - North Carolina Utilities Commission

## **One-Time Exemption from 10 CFR 50, Appendix E, Section IV.F.2.d**

### **1.0 Summary Description**

In accordance with 10 CFR 50.12, "Specific exemptions," paragraphs (a)(2)(iii) and (a)(2)(v), Duke Energy Progress, LLC (Duke Energy), requests an exemption for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, from the requirements of 10 CFR 50, Appendix E, Section IV.F.2.d. Specifically, Duke Energy requests a one-time schedular exemption from the requirement for the State of North Carolina to participate in the ingestion pathway portion of an exercise at least once every exercise cycle. The current 8-year exercise cycle for BSEP ends on December 31, 2021. Duke Energy is requesting to postpone State participation in the ingestion pathway portion of an exercise until no later than December 31, 2022. The 2022 BSEP Emergency Plan Exercise is currently scheduled to be conducted on July 26-27, 2022. The requested one-time schedular exemption provides the flexibility in the event of unforeseen circumstances, such as a hurricane.

### **2.0 Background**

10 CFR 50, Appendix E, Section IV.F.2.d, states, in part:

Each State with responsibility for nuclear power reactor emergency preparedness should fully participate in the ingestion pathway portion of exercises at least once every exercise cycle. In States with more than one nuclear power reactor plume exposure pathway EPZ, the State should rotate this participation from site to site.

To meet this requirement, the State of North Carolina was scheduled to participate in the December 1, 2020, BSEP Emergency Plan Exercise.

In a letter dated July 28, 2020, the Federal Emergency Management Agency (FEMA), in consultation with the Nuclear Regulatory Commission (NRC), Region II, approved a request from the State of North Carolina to postpone the ingestion pathway portion of the December 1, 2020, BSEP Emergency Plan Exercise to July 26-27, 2022. The need for this postponement arose from the Coronavirus Disease 2019 (COVID-19) public health emergency (PHE). As a result of this postponement, State participation in an ingestion pathway portion of an exercise will exceed the current nominal 8-year cycle.

### **3.0 Technical Justification of Acceptability**

During the COVID-19 public health emergency, BSEP continued to exercise the Emergency Response Organization (ERO) using quarterly and tabletop drills, utilizing remote functions where possible, to practice social distancing and limiting group size to prevent the spread of the virus.

BSEP's last biennial Emergency Preparedness (EP) exercise was conducted on December 1, 2020, which included a plume exposure pathway exercise and a rapid escalation exercise with full participation limited scope. This exercise was to include an ingestion pathway portion for the State, but the ingestion pathway portion of the drill was postponed with FEMA approval, based on the impact of the COVID-19 PHE on State and local resources. The next BSEP Emergency Plan Exercise is scheduled for July 26-27, 2022, and will include the ingestion pathway exercise.

BSEP conducted an off-year exercise to support a World Association of Nuclear Operators (WANO) evaluation of the station on April 20, 2021, which was a plume exposure pathway exercise with partial offsite participation.

A review of the BSEP 8-year cycle indicates four Biennial NRC/FEMA Evaluated Exercises, four off-Year Exercises and eight additional drills were conducted with State and local participation.

BSEP and the State of North Carolina made a reasonable effort to complete the ingestion pathway exercise as originally scheduled but could not complete the exercise based upon health emergency protocols concerning the COVID-19 virus and the impact on State and local Emergency Management resources.

If this exemption is granted to allow BSEP to complete the ingestion pathway exercise outside of the 8-year cycle, BSEP will resume the previously scheduled exercises to maintain the required frequency of the exercise within the requirements of the existing 8-year cycle (i.e., January 2022 through December 2029).

#### **4.0 Justification of Exemption**

10 CFR 50.12, "Specific exemptions," states that the NRC may grant exemptions from the requirements of the regulations of this part provided three conditions are met. They are:

- (1) The exemptions are authorized by law,
- (2) The exemptions will not present an undue risk to the public health and safety, and
- (3) The exemptions are consistent with the common defense and security.

The justification to allow a one-time schedular exemption from the requirement for the State of North Carolina to participate in the ingestion pathway portion of an exercise at least once every 8-year exercise cycle is described below.

##### **(1) This exemption is authorized by law**

The requirements of 10 CFR 50, Appendix E, Section IV.F.2.d are not required by any statute. The requested exemption is authorized by law in that no law precludes the activities covered by this exemption request. Granting of the request does not result in a violation of the Atomic Energy Act of 1954, as amended.

##### **(2) This exemption will not present an undue risk to the public health and safety**

The underlying purpose of 10 CFR 50, Appendix E, Section IV.F.2.d, for the State to participate in the ingestion pathway portion of an exercise at least once every 8-year exercise cycle is to ensure that Offsite Response Organizations (ORO) personnel are familiar with their duties and to test the adequacy of the emergency plan. The 2020 BSEP Biennial Emergency Preparedness Exercise was successfully completed on December 1, 2020. As documented in NRC Inspection Report 2020-004, for BSEP, dated February 5, 2021 (i.e. ADAMS Accession Number ML21040A371), the exercise scenario included conditions for declaring a General Emergency, and eventually allowed the ORO to demonstrate their ability to implement emergency actions. No minor violations, findings, or violations of more than minor significance were identified during this inspection. This provides assurance that ORO personnel will remain proficient during the period of this one-time exemption.

Postponing State participation in an ingestion pathway portion of an exercise beyond December 31, 2021, until no later than December 31, 2022, does not create any new accident precursors. The probability and consequences of postulated accidents are not increased, and an acceptable level of emergency preparedness is maintained. Therefore, there is no undue risk to public health and safety.

(3) This exemption is consistent with the common defense and security

The proposed exemption would allow a one-time schedular exemption from the requirement for the State of North Carolina to participate in the ingestion pathway portion of an exercise at least once every exercise cycle. This schedular exemption has no relation to security issues. The common defense and security are not impacted by this exemption.

Additional Considerations

In addition to the three conditions discussed above, paragraph (a)(2) of 10 CFR 50.12 states that the NRC will not consider granting an exemption unless special circumstances are present. Special circumstances, per 10 CFR 50.12(a)(2)(iii), are present when,

Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated...

On March 13, 2020, President Donald Trump declared the COVID-19 pandemic a national emergency. In addition, North Carolina Governor Roy Cooper declared a state of emergency on March 10, 2020. State participation in the ingestion pathway portion of the 2020 BSEP Biennial Emergency Preparedness Exercise under the existing pandemic conditions would have resulted in undue hardship significantly in excess of those contemplated when the regulation was adopted.

Additionally, special circumstances, per 10 CFR 50.12(a)(2)(v), are present when,

The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation...

This is a one-time schedular exemption from the requirement for the State of North Carolina to participate in the ingestion pathway portion of an exercise at least once every exercise cycle (i.e., the current 8-year exercise cycle for BSEP ends on December 31, 2021) until no later than December 31, 2022. Duke Energy made good faith efforts to comply with the regulation. Planning for the 2020 BSEP Biennial Emergency Preparedness Exercise included the required State participation. However, COVID-19 pandemic conditions prevented participation, as approved by FEMA, in consultation with the NRC, Region II, in a letter dated July 28, 2020. The 2020 BSEP Biennial Emergency Preparedness Exercise was successfully completed on December 1, 2020, and as documented in NRC Inspection Report 2020-004, the scenario included conditions for declaring a General Emergency, and eventually allowed the ORO to demonstrate their ability to implement emergency actions.

## **5.0 Conclusion**

As demonstrated above, Duke Energy has determined that this exemption request is in accordance with the criteria of 10 CFR 50.12. Specifically, the requested exemption is

authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. A one-time exemption from the requirements of 10 CFR 50, Appendix E, Section IV.F.2.d is needed due to the undue hardship which would have occurred had the State of North Carolina participated in an ingestion pathway portion of the 2020 BSEP Biennial Emergency Preparedness Exercise during the ongoing COVID-19 pandemic.

## **6.0 Environmental Assessment**

Duke Energy is requesting an exemption for BSEP, Unit Nos. 1 and 2, from the requirements of 10 CFR 50, Appendix E, Section IV.F.2.d. Specifically, Duke Energy is requesting a one-time schedular exemption from the requirement for the State of North Carolina to participate in the ingestion pathway portion of an exercise at least once every exercise cycle. The current 8-year exercise cycle for BSEP ends on December 31, 2021. The following information is provided in support of an environmental assessment and finding of no significant impact for the proposed exemption.

Duke Energy has determined that the exemption involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite; that there is no significant increase in individual or cumulative public or occupational radiation exposure; that there is no construction impact; and there is no significant increase in the potential for or consequences from a radiological accident. Furthermore, the requirements for which an exemption is being requested involve a schedular exemption associated with State participation in the ingestion pathway portion of an exercise. Accordingly, the proposed exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(25). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this proposed exemption request.

FEMA Letter to the State of North Carolina  
Approval of Deferral of Ingestion Pathway Participation



**FEMA**

July 28, 2020

Michael A. Sprayberry, Director  
NC Division of Emergency Management  
1636 Gold Star Drive  
Raleigh, North Carolina 27607

Dear Mr. Sprayberry:

Your request to postpone the ingestion pathway portion of the upcoming Brunswick Nuclear Plant exercise to July 26-27, 2022, is approved. This approval was made in consultation with the U.S. Nuclear Regulatory Commission, Region II. It is understood that the plume exposure pathway portion of the December 1, 2020, Brunswick Nuclear Plant exercise will be conducted as originally approved and rescheduled.

Should you have any questions, please contact Libby Adkins at 202.412.2584 or her Section Chief, J.T. Ackermann at 404.695.2334.

Sincerely,

Randall L. Hecht, Chief  
Technological Hazards Branch