

**NUCLEAR REGULATORY COMMISSION**

**[Docket Nos. 50-325 and 50-324; NRC-2021-0216]**

**Duke Energy Progress, LLC**

**Brunswick Steam Electric Plant, Units 1 and 2**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Exemption; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC, the Commission) is issuing an exemption in response to a request from Duke Energy Progress, LLC (Duke Energy, the facility licensee), on behalf of an individual named in the request, dated July 29, 2021, as supplemented by letters dated August 26, 2021 and October 25, 2021. The exemption permits a waiver of examination and test requirements for that individual to be supported by extensive actual operating experience at a comparable facility that occurred greater than 2 years before the date of application, as opposed to the regulatory requirement that this experience be within 2 years. The exemption is effective upon issuance, but only applies to the specifically named individual.

**DATES:** The exemption was issued on November 23, 2021.

**ADDRESSES:** Please refer to Docket ID **NRC-2021-0216** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2021-0216**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: Stacy.Schumann@nrc.gov. For technical questions, contact the individual listed in the

**FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System**

**(ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov). The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **NRC's PDR:** You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov) or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (ET), Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Andrew Hon, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-8480; email: [Andrew.Hon@nrc.gov](mailto:Andrew.Hon@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Background**

Duke Energy is the holder of Renewed Facility Operating License Nos. DPR-71 and DPR-62, which authorize the operation of Brunswick Steam Electric Plant, Units 1 and 2 (BSEP). BSEP consists of two boiling-water reactors located in Brunswick County, North Carolina. The licenses are subject to the rules, regulations, and orders of the NRC.

## II. Request/Action

Part 55 of title 10 of the *Code of Federal Regulations* (10 CFR), “Operators’ Licenses,” specifies the procedures and criteria for the issuance of licenses to operators and senior operators of utilization facilities licensed under the Atomic Energy Act of 1954, as amended, or Section 202 of the Energy Reorganization Act of 1974, as amended, and 10 CFR Part 50, Part 52, or Part 54. Pursuant to 10 CFR 55.11, “Specific exemptions,” the Commission may, upon application by an interested person, or upon its own initiative, grant such exemptions from the requirements of the regulations in 10 CFR Part 55 as it determines are authorized by law and will not endanger life or property and are otherwise in the public interest.

The specific requirements for written examinations and operating tests for senior operator candidates are described in 10 CFR 55.43, “Written examination: Senior operators,” and 10 CFR 55.45, “Operating tests,” respectively. Additionally, 10 CFR 55.47, “Waiver of examination and test requirements,” provides the criteria under which the Commission may waive any or all of the requirements for a written examination and operating test, upon application by a facility licensee. One criterion is that the Commission must find that the applicant “[h]as had extensive actual operating experience at a comparable facility, as determined by the Commission, within two years before the date of application....”

By letter dated July 29, 2021 (ADAMS Accession No. ML21211A003), as supplemented by letters dated August 26, 2021 and October 25, 2021 (ADAMS Accession Nos. ML21238A332 and ML21298A166, respectively), the facility licensee requested a one-time exemption from a specific requirement in 10 CFR 55.47 on behalf of an individual who had previously been licensed as a senior operator at BSEP. The facility licensee stated that the application for this individual to be licensed a second time

as a senior operator at BSEP was submitted approximately 2 years and 1 month since the individual had last been licensed at BSEP. Since 10 CFR 55.47 requires extensive actual operating experience within the 2 years before the date of application, the facility licensee requested a one-time exemption from this 2-year limit for the individual.

### **III. Discussion**

Pursuant to 10 CFR 55.11, the Commission may, upon application by an interested person, or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 55 as it determines (1) are authorized by law, (2) will not endanger life or property, and (3) are otherwise in the public interest.

#### **The Exemption Is Authorized by Law**

Exemptions are authorized by law where they are not expressly prohibited by statute or regulation. A proposed exemption is implicitly authorized by law if it will not endanger life or property and is otherwise in the public interest and no other provisions in law prohibit, or otherwise restrict, its application. The NRC has reviewed the exemption request and finds that granting the proposed exemption will not result in a violation of the Atomic Energy Act of 1954, as amended, or other laws. Accordingly, the NRC finds that the exemption is authorized by law.

#### **The Exemption Will Not Endanger Life or Property**

Pursuant to 10 CFR 55.33(a)(2), the Commission will approve an initial application for a senior operator license if it finds, in part, that the applicant has passed the requisite written examination and operating test in accordance with 10 CFR 55.43 and 55.45. The written examination and operating test determine whether the applicant has learned to operate a facility, and to direct the licensed activities of licensed operators at the facility, competently and safely. The regulations in 10 CFR 55.47 allow for, instead, a waiver of the written examination and operating test if the Commission finds

that the applicant:

- (1) Has had extensive actual operating experience at a comparable facility, as determined by the Commission, within two years before the date of application;
- (2) Has discharged his or her responsibilities competently and safely and is capable of continuing to do so; and
- (3) Has learned the operating procedures for and is qualified to operate competently and safely the facility designated in the application.

Regarding the application of the 10 CFR 55.47 criteria to the specifically named individual (whose name is redacted and replaced with "[[ ]]"), the facility licensee stated the following:

Mr. [[ ]] discharged his responsibilities competently and safely during his nearly 6 years and 5 months as a licensed operator at BSEP. Mr. [[ ]] was issued License No. OP-21982 for BSEP, Units 1 and 2, effective January 17, 2013. Subsequently, the license was upgraded to SRO [senior operator] License No. SOP-501215, effective September 20, 2017. Mr. [[ ]] voluntarily resigned and his SOP License was terminated on June 13, 2019, when he left the company. Along with his duties as a Control Room supervisor, Mr. [[ ]] served as an instructor for the Brunswick Initial License Training Program with a focus on Abnormal and Emergency Procedure training in the simulator until his departure in June 2019.

...Since returning to BSEP on June 7, 2021, Mr. [[ ]] has completed a training process of self-study and one-on-one instruction, which included the licensed operator requalification material for all training segments since his June 2019 departure. Mr. [[ ]] then commenced attending licensed operator requalification training in July 2021 and will continue in this training program.

As part of this additional training, Mr. [[ ]] spent a total of 168 hours on shift during June and July 2021 as follows:

- 1) 36 hours as a non-licensed operator under the direction of the qualified on-duty operators performing plant walk downs and refamiliarization tours;
- 2) 36 hours of shift functions under the direction of a Reactor Operator in the position of Reactor Operator;
- 3) 48 hours of shift functions under the direction of a Senior Reactor Operator in the position of Control Room Supervisor; and

- 4) 48 hours of Work Control Center functions under direction of a Senior Reactor Operator.

At the completion of this additional training and on-shift time, Mr. [ ] took and passed the annual licensed operator requalification written, simulator operating, and Job Performance Measure exams administered on July 7, 2021.

In accordance with 10 CFR 55.47(b) and (c), an authorized representative of the facility licensee certified that the specifically named individual's past performance and current qualifications meet the criteria of 10 CFR 55.47(a). Specifically, the facility licensee certified that the individual discharged his responsibilities competently and safely and is capable of continuing to do so. The facility licensee also certified that the individual has learned the operating procedures for and is qualified to operate competently and safely the facilities at BSEP. The certification included a description of the individual's operating experience. Specifically, the individual received a license as an operator of BSEP, Units 1 and 2 from January 2013, until upgrading the license to that of a senior operator in September 2017. While at BSEP, the individual operated the controls of the facilities, performed extensive licensed operator duties, and had responsibilities commensurate with a licensed operator. The individual's license was terminated in June 2019. The NRC received an application for the individual to reinstate his license on July 29, 2021, approximately 1 month beyond the 2-year waiver limit of 10 CFR 55.47(a)(1). Since returning to BSEP, the individual completed self-study, one-on-one instruction, requalification examinations, and 168 hours on-shift under the direction of on-duty operators. The individual will continue training and examinations in the requalification program.

Based on the above, the NRC determined that the individual's knowledge and abilities associated with the operation of BSEP demonstrate, consistent with

10 CFR 55.47, that the individual has learned to operate the facility, and to direct the licensed activities of licensed operators at the facility, competently and safely, notwithstanding the fact that their extensive actual operating experience at the facility occurred approximately 1 month beyond the 2-year waiver limit of 10 CFR 55.47(a)(1). Accordingly, the NRC finds that the exemption will not endanger life or property.

### **The Exemption Is Otherwise in the Public Interest**

The granting of the requested exemption is otherwise in the public interest because it is a part of the facility licensee's ongoing effort, consistent with the NRC's regulations, to avoid excessive use of overtime by its licensed operators. The facility licensee stated that it expected to need fatigue rule waivers of one or more work hour controls, per 10 CFR 26.207, "Waivers and exceptions," to maintain licensed operator shift staffing. Worker fatigue at BSEP and in the nuclear industry is a safety concern to the NRC and prompted the Commission to amend 10 CFR Part 26 in March 2008, to include new requirements for facility licensees to establish written policies for the management of fatigue for all individuals who are subject to a facility licensee's fitness-for-duty program, including licensed operators. Accordingly, 10 CFR 26.207(a)(2) states, "To the extent practicable, licensees shall rely on the granting of waivers only to address circumstances that could not have been reasonably controlled...." The facility licensee stated that all off-shift individuals with operator licenses, both within operations staff and other departments, are now reactivated and supporting shift overtime coverage and, to the full extent possible, individuals with operator licenses have been wholly rededicated to shift coverage. Furthermore, the facility licensee has initiated a licensed operator class that is relatively large (i.e., 30 candidates) with a currently scheduled licensing date in February 2023. Nonetheless, the facility licensee stated that fatigue rule waivers would still be needed before this date. The facility licensee further stated

that BSEP has already begun experiencing temporary periods below the requirements of the Brunswick On-Shift Staffing Analysis due to illness and that the majority of the BSEP licensed operators are at their fatigue rule limits through the end of 2021 without all future coverage yet filled.

The granting of the requested exemption would allow the re-licensing of the specifically named individual, which would alleviate the BSEP licensed operator staffing challenge over approximately 200 shifts through February 2023, the coverage of which would otherwise require additional overtime and possibly fatigue rule waivers. Therefore, delaying the individual's opportunity to be re-licensed until the next examination date would not be in the public interest, and the cost of preparing, approving, and administering a special licensing examination before that date for the individual would be substantial for both the facility licensee and the NRC, without a commensurate benefit to life or property, as determined above.

Based on the above, the NRC finds that the exemption is otherwise in the public interest.

### **Environmental Considerations**

The NRC's approval of the exemption is categorically excluded under 10 CFR 51.22(c)(25) and there are no special circumstances present that would preclude reliance on this exclusion. The NRC staff determined, per 10 CFR 51.22(c)(25)(vi)(E), that the requirements from which the exemption is sought involve education, training, experience, qualification, requalification, or other employment suitability requirements. The NRC staff also determined that approval of the exemption involves no significant hazards consideration because it does not authorize any physical changes to the facility or any of its safety systems, nor does it change any of the assumptions or limits used in the facility licensee's safety analyses or



introduce any new failure modes. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite because the exemption does not affect any effluent release limits as provided in the facility licensee's technical specifications or by the regulations in 10 CFR Part 20, "Standards for Protection Against Radiation." There is no significant increase in individual or cumulative public or occupational radiation exposure because the exemption does not affect limits on the release of any radioactive material, or the limits provided in 10 CFR Part 20 for radiation exposure to workers or members of the public. There is no significant construction impact because the exemption does not involve any construction activities or changes to a construction permit. There is no significant increase in the potential for or consequences from radiological accidents because the exemption does not alter any of the assumptions or limits in the facility licensee's safety analysis. In addition, the NRC determined that there would be no significant impacts to biota, water resources, historic properties, cultural resources, or socioeconomic conditions in the region. As such, there are no special circumstances present that would preclude reliance on this categorical exclusion. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the approval of the exemption.

#### **IV. Conclusion**

Accordingly, the Commission has determined that, pursuant to 10 CFR 55.11, the exemption is authorized by law, will not endanger life or property, and is otherwise in the public interest. Therefore, effective immediately, the Commission hereby grants, on a one-time basis, the request to exempt the specifically named individual from the

10 CFR 55.47(a)(1) requirement that his extensive actual operating experience at a comparable facility be within 2 years before the date of application.

Dated: November 23, 2021.

For the Nuclear Regulatory Commission.

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Brian D. Wittick, Acting Deputy Director,  
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