

October XX, 2021

Docket Nos.: 52-025
52-026ND-21-XXXX
10 CFR 73.5
10 CFR 73.55(a)(4)
10 CFR 73.56(a)(3)U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4
Request for Exemption:
Protected Area Declaration

Ladies and Gentlemen:

In accordance with the provisions of 10 CFR 73.5, *Specific Exemptions*, Southern Nuclear Operating Company (SNC), as a Combined License (COL) holder under 10 CFR Part 52, hereby requests an exemption from the requirements of 10 CFR 73.55(a)(4) and 10 CFR 73.56(a)(3) as applicable to Vogtle Electric Generating Plant (VEGP) Units 3 and 4 (License Numbers NPF-91 and NPF-92). Title 10 of the Code of Federal Regulations, Section 73.55, paragraph (a)(4) [10 CFR 73.55(a)(4)] requires a holder of a combined license (COL) under the provisions of 10 CFR Part 73 to implement the requirements of Section 73.55 before fuel is allowed onsite (protection area). Similarly, 10 CFR 73.56(a)(3) requires implementation of this section before fuel is allowed onsite (protected area). The proposed exemption from the requirements of 10 CFR 73.55 would allow SNC to declare an operational protected area (PA) and implement the associated personnel access authorization program requirements after the NRC declares the requirements of 10 CFR 52.103(g) are satisfied and prior to each unit's initial fuel load into the reactor.

This exemption is necessary to allow VEGP Units 3 and 4 construction personnel to continue to efficiently perform construction activities, including the passage of personnel, construction vehicles, and equipment through the site area that will be part of the PA, between the 10 CFR 52.103(g) finding and the fuel load milestone. Restricting such individuals and equipment from passing through a PA several times a day represents a costly and unnecessary burden. The objective of 10 CFR 73.55 is to provide high assurance that activities involving special nuclear material (SNM) are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety. SNC has an NRC-approved Special Nuclear Material Physical Protection Program (SNMPPP), as described in the VEGP 3&4 Physical Security Plan, to protect the new (unirradiated) fuel and intermediate range detectors already on-site. The methods and procedures outlined in the SNMPPP satisfy the performance objectives, systems capabilities, and reporting requirements specified in 10 CFR 73.67 for the physical protection of SNM of moderate and low strategic significance. The SNMPPP is approved to remain in effect until fuel load, at which time an operational PA that

satisfies the requirements of 10 CFR 73.55(e)(8), Protected Area, will be established. Per the SNMPPP, unirradiated fuel is stored in the Controlled Access Area (CAA). Access to a CAA is controlled and limited to authorized personnel and escorted visitors in accordance with site procedures. This exemption will expire when the VEGP Units 3 and 4 PAs are declared operational.

The exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest.

SNC facilitated a pre-submittal meeting on October 28, 2021 with the NRC staff on the proposed exemption request.

The enclosure to this letter provides the background and supporting basis for the requested exemption.

This letter contains no regulatory commitments. This letter has been reviewed and determined not to contain security-related information.

SNC requests NRC staff approval of the exemption by December 1, 2021, to support on-going construction, inspection, and testing activities. Delayed approval of this exemption could result in unnecessary delays of critical fuel load preparation activities.

Should you have any questions, please contact Mr. Steve Leighty at (706) 848-6790.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the XXth day of October 2021.

Respectfully submitted,

Michael J. Yox
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MJY/SLL/sfr

Enclosure: Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Exemption Request:
10 CFR 73.55(a)(4) and 10 CFR 73.56(a)(3) Protected Area Declaration
Requirements

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Southern Nuclear Operating Company

ND-21-XXXX

Enclosure

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Exemption Request:

10 CFR 73.55(a)(4) and 10 CFR 73.56(a)(3) Protected Area Declaration Requirements

(This Enclosure consists of nine pages, including this cover page.)

ND-21-XXXX

Enclosure

Exemption Request: 10 CFR 73.55(a)(4) and 10 CFR 73.56(a)(3) Protected Area Declaration Requirements

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1.0 PURPOSE

In accordance with the provisions of 10 CFR 73.5, Southern Nuclear Operating Company (SNC), as a Combined License (COL) holder under 10 CFR 52, hereby requests an exemption from the requirements of 10 CFR 73.55(a)(4), as interpreted by Reference 1, as applicable to Vogtle Electric Generating Plant (VEGP) Units 3 and 4. Specifically, SNC requests a partial exemption from 10 CFR 73.55(a)(4), which states:

“ ... holders of a combined license under the provisions of part 52 of this chapter, shall implement the requirements of this section before fuel is allowed onsite (protected area).”

SNC also requests a partial exemption from 10 CFR 73.56(a)(3), which states:

“ ... each holder of a combined license under the provisions of part 52 of this chapter, shall implement the requirements of this section before fuel is allowed on site (protected area).”

The proposed exemption from the requirements of 10 CFR 73.55(a)(4) and 10 CFR 73.56(a)(3) would allow SNC to declare an operational protected area (PA) that satisfies the requirements of 10 CFR 73.55(e)(8), Protected Area, and implement and maintain its access authorization program after the NRC finds the requirements of 10 CFR 52.103(g) are satisfied and prior to the start of the unit's initial fuel load.

2.0 BACKGROUND and TECHNICAL JUSTIFICATION OF ACCEPTABILITY

10 CFR Part 73 prescribes requirements for the establishment and maintenance of a physical protection system which will have capabilities for the protection of special nuclear material and of plants in which special nuclear material is used. Paragraphs 73.55(a)(4) and 73.56(a)(3) require holders of a COL under Part 52 to implement the requirements of Sections 73.55, “Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage,” and 73.56, “Personnel access authorization requirements for nuclear power plants,” respectively, before unirradiated fuel is allowed onsite at nuclear power reactors (i.e., within the protected area).

For the new (unirradiated) fuel and intermediate range detectors already on-site, SNC has a Special Nuclear Material (SNM) Physical Protection Program (SNMPPP) as described in the VEGP 3&4 Physical Security Plan which establishes and maintains an SNM physical protection program under 10 CFR 73.67. The SNMPPP is approved to remain in effect until fuel load, at which time an operational PA that satisfies the requirements of 10 CFR 73.55(e)(8) will be established. Per the SNMPPP, the unirradiated fuel and intermediate range detectors are stored in the Controlled Access Area (CAA). Access to a CAA is controlled and limited to authorized personnel and escorted visitors in accordance with site procedures.

10 CFR Part 52 Licensees met with the NRC staff to obtain clarification regarding the timing and the relationship between the implementation of the 10 CFR 73.55 plan (i.e., protected area declaration) and the 10 CFR 52.103(g) finding by the NRC staff. The NRC staff provided this clarification by letter dated April 13, 2017 (Reference 1), stating that licensees “may complete the protected area and declare it operable before

the NRC staff makes the 10 CFR 52.103(g) finding.” This letter also provided an alternative whereby the licensees may rely on their NRC-approved 10 CFR 73.67 plans to protect SNM prior to the 10 CFR 52.103(g) finding, with the protected area being declared when the 10 CFR 52.103(g) finding is made. Thus, the NRC staff’s clarification only delineates two timing options; one in which the PA is declared operational at the same time as the 10 CFR 52.103(g) finding is made, and one in which the PA is declared operational some time prior to the 10 CFR 52.103(g) finding.

SNC is requesting an exemption from 10 CFR 73.55(a)(4), as interpreted by Reference 1, and 10 CFR 73.56(a)(3) to allow the declaration of an operational PA after the NRC makes its 10 CFR 52.103(g) finding. VEGP Units 3 and 4 construction personnel are expected to continue performing construction activities in preparation for fuel load after the 10 CFR 52.103(g) finding, requiring personnel, vehicles, and equipment necessary for construction to pass through the site area that will be part of the PA. Requiring such individuals and equipment to pass through a PA numerous times each day is a costly and unnecessary burden.

As stated in 10 CFR 73.55 paragraph (b), the objective of 10 CFR 73.55 is to provide high assurance that activities involving SNM are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety.

(b) General performance objective and requirements. (1) The licensee shall establish and maintain a physical protection program, to include a security organization, which will have as its objective to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety.

Per 10 CFR 73.55(b)(3), the physical protection program is designed to prevent significant core damage and spent fuel sabotage.

The physical protection program must be designed to prevent significant core damage and spent fuel sabotage.

The regulation does not tie 10 CFR 73.55 compliance to the issuance of a 10 CFR 52.103(g) finding, but rather to core damage and spent fuel sabotage. Without irradiated fuel there can be no significant core damage or spent fuel sabotage, thereby not constituting an unreasonable risk to the public health and safety. Additionally, as stated, SNC has an SNMPPP to protect the SNM already on-site where it is stored in the CAA.

The NRC staff reviewed SNC’s SNMPPP and concluded that the methods and procedures outlined in the PSP satisfy the performance objectives, systems capabilities, and reporting requirements specified in 10 CFR 73.67. The NRC issued a license for SNC to receive fuel under 10 CFR 73.67. Prior to moving fuel outside the CAA (i.e., from the Auxiliary Building to Containment in support of fuel load), an operational PA would have to be established, as the SNMPPP can no longer be used for physical protection. The regulation does not tie 10 CFR 73.55 compliance to the issuance of a 10 CFR 52.103(g) finding. Requiring the establishment of an operational protected area in addition to the SNMPPP before the 10 CFR 52.103(g) finding is not required per the Code of Federal Regulations and is an unnecessary burden. SNC’s position is that a

more appropriate milestone for establishing the 10 CFR 73.55 operational PA is prior to the commencement of fuel load.

3.0 JUSTIFICATION FOR EXEMPTION

10 CFR 73.5, Specific Exemptions states that the Commission may grant exemptions from the requirements of the regulations in this part as it determines are authorized by law, will not endanger life or property or the common defense and security, and are otherwise in the public interest.

3.1 This exemption is authorized by law

The NRC has authority under 10 CFR 73.5 to grant exemptions from the requirements of NRC regulations. 10 CFR 73.5 states that the Commission may grant exemptions from the requirements of 10 CFR Part 73 if the specific requirements are met. No law exists that would preclude the changes covered by this exemption request. Additionally, granting of the proposed exemption does not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations.

Accordingly, this requested exemption is "authorized by law," as required by 10 CFR 73.5.

3.2 This exemption will not endanger life or property

The proposed exemption from the requirements of 10 CFR 73.55(a)(4) and 73.56(a)(3) would allow SNC to declare an operational PA after the NRC declares the requirements of 10 CFR 52.103(g) are satisfied.

The proposed change in which SNC will declare an operational PA after the 10 CFR 52.103(g) finding instead of prior to the 103(g) finding does not represent any adverse impact to SNC's ability to satisfy other requirements in the regulations or License. The change is needed to allow SNC a practicable amount of time to complete construction activities prior to fuel load. The proposed exemption does not introduce any new industrial, chemical, or radiological hazards that would present a public health or safety risk, nor does it modify or remove any design or operational controls, or safeguards intended to mitigate any existing on-site hazards. Furthermore, the proposed exemption would not allow for a new fission product release path, result in a new fission product barrier failure mode, or create a new sequence of events that would result in fuel cladding failures. Accordingly, this proposed exemption does not present an undue risk from any existing or proposed equipment or systems.

Therefore, the requested exemption from 10 CFR 73.55(a)(4) and 73.56(a)(3) would not endanger life or property.

3.3 This exemption is consistent with the common defense and security

The proposed exemption from the requirements of 10 CFR 73.55(a)(4) and 73.56(a)(3) would allow SNC to continue construction activities until an operational PA can be declared. The proposed exemption does not alter the design, function, or operation of any structure or plant equipment that is necessary to maintain a safe and secure status of the plant. Further, the proposed exemption does not alter or otherwise invalidate any Physical Security Hardware-related Inspections, Tests, Analyses, and Acceptance Criteria (PS-ITAAC), which would have been submitted to, and accepted by, the NRC staff in advance of the 10 CFR 52.103(g) finding.

During the period between the 10 CFR 52.103(g) finding and the PA declaration, SNM will continue to be stored inside the CAA, and protected in accordance with the requirements of SNC's NRC-approved SNMPPP. Prior to moving fuel outside the CAA (i.e., from the Auxiliary Building to Containment in support of fuel load), the PA would have to be established, as the SNMPPP can no longer be used for physical protection. Thus, the proposed exemption has no impact on the licensee's capabilities to protect the unirradiated fuel and intermediate range detectors already on site.

Therefore, the requested exemption is consistent with the common defense and security.

3.4 This exemption is in the public interest

The public has an interest in the efficient execution of regulatory activities. VEGP Units 3 and 4 construction personnel are expected to continue performing construction activities after the 10 CFR 52.103(g) milestone, requiring personnel, vehicles, and equipment necessary for fully completing construction. Requiring such individuals and equipment to pass through a PA numerous times each day is a costly and an unnecessary burden. Since there is no regulatory language tying the 10 CFR 52.103(g) finding to the PA declaration, there is no requirement to have an operational PA before 10 CFR 52.103 (g). Declaring an operational PA after the 10 CFR 52.103(g) finding and before fuel load, allows construction to continue without the burden of adhering to the requirements of 10 CFR 73.55(a)(4) and 10 CFR 73.56(a)(3). Since SNC has an SNMPPP to establish and maintain a physical protection system for the protection of special nuclear material, SNC has assured the exemption is in the public interest.

4.0 RISK ASSESSMENT

A risk assessment was not determined to be applicable to address the acceptability of this proposal.

5.0 PRECEDENT EXEMPTIONS

None.

6.0 SIGNIFICANT HAZARDS DETERMINATION AND ENVIRONMENTAL CONSIDERATIONS

The proposed exemption has been evaluated against the criteria of 10 CFR 51.21, *Criteria for and identification of licensing and regulatory actions requiring environmental assessments*, and has been determined to meet the categorical exclusion criteria of 10 CFR 51.22, *Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review*, as described below, which evaluates the change against the criteria of 10 CFR 51.22(c)(25).

The requested exemption, which seeks to change the timing of standards required by 10 CFR 73.55(a)(4) and 10 CFR 73.56(a)(3), does not make any changes to the facility or operating procedures and:

- i) Does not involve a significant hazards consideration [10 CFR 51.22(c)(25)(i)]. The standards set forth in 10 CFR 50.92(c) were used to determine whether the requested exemption involved a significant hazards consideration:

(1) Does the proposed licensing action involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed exemption from the requirements of 10 CFR 73.55(a)(4) and 73.54(a)(3) would allow the Licensee to declare an operational PA and implement the associated personnel access authorization program requirements after the 10 CFR 52.103(g) finding and before loading fuel into the reactor. The requested exemption does not alter the design, function, or operation of any plant equipment.

Therefore, granting this exemption would not involve a significant increase in the probability or consequences of an accident previously evaluated.

(2) Does the proposed licensing action create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The requested exemption does not alter the design, function, or operation of any plant equipment. The requested exemption does not create any new failure mechanisms, malfunctions, or accident initiators.

Therefore, granting this exemption does not create the possibility of a new or different kind of accident from any accident previously evaluated.

(3) Does the proposed licensing action involve a significant reduction in a margin of safety?

Response: No.

The requested exemption does not adversely affect any structure, system, and component (SSC), SSC design function, or method of performing or controlling a design function. The requested exemption does not affect safety-related equipment or fission product barriers. No safety analysis or design basis acceptance limit or criterion is challenged or exceeded by the requested exemption.

Therefore, it is concluded that granting the proposed exemption does not involve a 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.

- ii) Does not involve a significant change in the types or significant increase in the amounts of any effluents that may be released offsite [10 CFR 51.22(c)(25)(ii)].

The requested exemption does not alter the design, function, or operation of any plant equipment. There are no changes to effluent types, plant radiological or non-radiological effluent release quantities, any effluent release path, or the functionality of any design or operational features credited with controlling the release of effluents during plant operation or construction.

Therefore, it is concluded that the proposed exemption does not involve a significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

- iii) Does not involve a significant increase in individual or cumulative public or occupational radiation exposure [10 CFR 51.22(c)(25)(iii)].

There are no changes to plant radiation zones, nor any change to controls required under 10 CFR Part 20 which preclude a significant increase in occupational radiation exposure.

Therefore, it is concluded that the proposed exemption does not involve a significant increase in individual or cumulative public or occupational radiation exposure.

- iv) Does not involve a significant construction impact [10 CFR 51.22(c)(25)(iv)].

The requested exemption does not alter the materials or methods of constructing or testing of any SSCs. No change to the design or construction of the facility is being made as a result of this exemption.

The requested exemption will have a beneficial (i.e., non-significant) impact on construction of VEGP Units 3 and 4 by allowing construction personnel to continue to efficiently perform construction activities between the 10 CFR 52.103(g) finding and the fuel load milestone. Requiring such individuals and equipment to pass through an operational PA numerous times each day effectively mitigates a costly and an unnecessary burden.

Therefore, it is concluded that the proposed exemption does not involve a significant construction impact.

- v) Does not involve a significant increase in the potential for or consequences from radiological accidents [10 CFR 51.22(c)(25)(v)].

The requested exemption does not alter the design, function, or operation of any plant equipment. There are no changes to plant radiation zones, nor any change to controls required under 10 CFR Part 20 which preclude a significant increase in occupational radiation exposure.

Therefore, it is concluded that the proposed exemption does not involve a significant increase in the potential for or consequences from radiological accidents.

- vi) Involves Safeguard plan, and materials control and accountability inventory scheduling requirements. [10 CFR 51.22(c)(25)(vi)(F)].

The requested exemption would allow the Licensee to declare an operational PA after the NRC declares the requirements of 10 CFR 52.103(g) are satisfied and prior to the start of the unit's initial fuel load. This is a change to the scheduling requirements of 10 CFR 73.55(a)(4) and 10 CFR 73.56(a)(3), which requires the implementation of the requirements of 10 CFR Section 73.55 before fuel is allowed onsite (protected area).

Accordingly, the proposed exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(25). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this exemption.

7.0 CONCLUSION

The proposed exemption from the requirements of 10 CFR 73.55(a)(4) and 10 CFR 73.56(a)(3) would allow SNC to declare an operational PA after the 10 CFR 52.103(g) finding and before initial fuel load.

The proposed change does not represent any adverse impact in SNC's ability to protect the health and safety of the public from radiological sabotage or spent fuel sabotage.

The exemption request meets the requirements of 10 CFR 73.5, *Specific exemptions*, in that the request is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Furthermore, approval of this request meets the eligibility requirements for categorical exclusion from requiring an environmental assessment.

8.0 REFERENCE

1. Letter from Francis M. Akstulewicz (NRC) to Mr. Brian H. Whitley (SNC) and Mr. Ronald A. Jones (SCE&G), "Protected Area Considerations for Vogtle Electric Generating Plant Units 3 and 4 and Virgil C. Summer Nuclear Station Units 2 and 3," dated April 13, 2017 [ADAMS Accession Number ML17074A370]