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330-315-6800

September 11, 2018
L-18-166

10 CFR 73.5

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

SUBJECT:
Beaver Valley Power Station, Unit Nos. 1 and 2
Docket No. 50-334, License No. DPR-66
Docket No. 50-412, License No. NPF-73

Davis-Besse Nuclear Power Station, Unit No. 1
Docket No. 50-346, License No. NPF-3

Perry Nuclear Power Plant, Unit No. 1
Docket No. 50-440, License No. NPF-58

Request for Exemption Related to the Suspension of Security Measures in an
Emergency or During Severe Weather

By letter dated April 25, 2018 (Accession No. ML18115A007), FirstEnergy Nuclear Operating Company (FENOC) provided formal notification to the U.S. Nuclear Regulatory Commission (NRC) pursuant to 10 CFR 50.82(a)(1)(i) and 10 CFR 50.4(b)(8) of the intention to permanently cease power operations at the Davis-Besse Nuclear Power Station (DBNPS), Unit No. 1, by May 31, 2020; the Perry Nuclear Power Plant (PNPP), Unit No. 1, and the Beaver Valley Power Station (BVPS), Unit No. 1, by May 31, 2021; and the BVPS, Unit No. 2, by October 31, 2021.

After the certifications of permanent cessation of power operations and of permanent removal of fuel from the reactor vessels are docketed for each of the aforementioned units, in accordance with 10 CFR 50.82(a)(1)(i) and (ii), and pursuant to 10 CFR 50.82(a)(2), the 10 CFR 50 licenses will no longer authorize reactor operation or emplacement or retention of fuel in the reactor vessel. As a result, licensed reactor operators will no longer be required to support plant operating activities. Instead, certified fuel handlers (CFHs) will perform activities associated with decommissioning, irradiated fuel handling, and management. Approval of a CFH training and retraining program is needed to facilitate these activities. By letter dated August 15, 2018, FENOC submitted a request for NRC approval of the FENOC CFH training and retraining program for these units.

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In accordance with 10 CFR 73.5, "Specific Exemptions," FENOC requests an exemption from 10 CFR 73.55(p)(1)(i) and 10 CFR 73.55(p)(1)(ii), related to the suspension of security measures in an emergency or during severe weather for these units. 10 CFR 73.55(p)(1)(i) and 10 CFR 73.55(p)(1)(ii) require that the suspension of security measures be approved by a licensed senior operator before taking action. FENOC is requesting an exemption from these rules to allow either a licensed senior operator or a CFH to approve the suspension of security measures. Approval of this exemption request will align 10 CFR 73.55(p)(1)(i) and 10 CFR 73.55(p)(1)(ii) with 10 CFR 50.54(y) for these units. The details of the 10 CFR 73.5 exemption request are enclosed.

FENOC requests review and approval of this exemption request by September 30, 2019 to support the current schedule that applies to the earliest FENOC unit transitioning to a permanently defueled facility. FENOC requests that the approved exemption request become effective for each unit following the docketing of the certifications required by 10 CFR 50.82(a)(1) that these units have been permanently shutdown and defueled. The exemption will be implemented at each facility within 60 days after the effective date of the approved exemption.

There are no regulatory commitments contained in this submittal. If there are any questions, or if additional information is required, please contact Mr. Thomas A. Lentz, Manager, FENOC Nuclear Licensing & Regulatory Affairs, at (330) 315-6810.

Sincerely,



Donald A. Moul

Enclosure: Exemption Request

cc: NRC Region I Administrator
NRC Region III Administrator
NRC Resident Inspector – Davis-Besse
NRC Resident Inspector – Perry
NRC Resident Inspector – Beaver Valley
NRC Project Manager – Davis-Besse
NRC Project Manager – Perry
NRC Project Manager – Beaver Valley
NRC Project Manager – FENOC Fleet
Director BRP/DEP
Site BRP/DEP Representative
Utility Radiological Safety Board

1. SPECIFIC EXEMPTION REQUEST

In accordance with Title 10 of the Code of Federal Regulations (CFR), Part 73, Section 5, "Specific Exemptions," FirstEnergy Nuclear Operating Company (FENOC) requests an exemption from 10 CFR 73.55(p)(1)(i) and 10 CFR 73.55(p)(1)(ii), related to the suspension of security measures in an emergency or during severe weather for the Davis-Besse Nuclear Power Station (DBNPS), the Perry Nuclear Power Plant (PNPP), and the Beaver Valley Power Station (BVPS). These rules require that the suspension of security measures be approved by a licensed senior operator before taking action. Consistent with 10 CFR 50.54(y), the proposed exemption would allow either a licensed senior operator or a certified fuel handler (CFH) to approve the suspension of security measures in an emergency or during severe weather at the aforementioned facilities after the certifications required under 10 CFR 50.82(a)(1) have been docketed and the NRC has approved the FENOC CFH training and retraining program that was submitted by letter dated August 15, 2018 (Reference 1).

By letter dated April 25, 2018 (Reference 2), FENOC provided formal notification to the U.S. Nuclear Regulatory Commission (NRC) pursuant to 10 CFR 50.82(a)(1)(i) and 10 CFR 50.4(b)(8) of the intention to permanently cease power operations at the DBNPS, Unit No. 1, by May 31, 2020; the PNPP, Unit No. 1, and the BVPS, Unit No. 1, by May 31, 2021; and the BVPS, Unit No. 2, by October 31, 2021. After the certifications of permanent cessation of power operations and of permanent removal of fuel from the reactor vessels are docketed for these units, in accordance with 10 CFR 50.82(a)(1)(i) and (ii), and pursuant to 10 CFR 50.82(a)(2), the 10 CFR 50 license for each of these facilities will no longer authorize reactor operation or emplacement or retention of fuel in the respective reactor vessels.

As a result, licensed senior operators will no longer be required to support facility operating activities. Instead, CFHs will facilitate the activities associated with decommissioning and irradiated fuel handling and management.

2. BASIS FOR EXEMPTION REQUEST

Approval of this exemption request will align 10 CFR 73.55(p)(1)(i) and 10 CFR 73.55(p)(1)(ii) with 10 CFR 50.54(y) and 10 CFR 50.2 for these units as nuclear power reactor facilities whose certifications required under 10 CFR 50.82(a)(1) have been docketed.

10 CFR 50.54(x) states:

A licensee may take reasonable action that departs from a license condition or a technical specification (contained in a license issued under this part) in an emergency when this action is immediately needed to protect the public health and safety and no action consistent with license conditions and technical specifications that can provide adequate or equivalent protection is immediately apparent.

10 CFR 50.54(y) states:

Licensee action permitted by paragraph (x) of this section shall be approved, as a minimum, by a licensed senior operator, or, at a nuclear power reactor facility for which the certifications required under 10 CFR 50.82(a)(1) have been submitted, by either a licensed senior operator or a certified fuel handler, prior to taking the action.

10 CFR 73.55(p) states:

- (1) The licensee may suspend implementation of affected requirements of this section under the following conditions:
 - (i) In accordance with 10 CFR 50.54(x) and 10 CFR 50.54(y) of this chapter, the licensee may suspend any security measures under this section in an emergency when this action is immediately needed to protect the public health and safety and no action consistent with license conditions and technical specifications that can provide adequate or equivalent protection is immediately apparent. This suspension of security measures must be approved as a minimum by a licensed senior operator before taking this action.
 - (ii) During severe weather when the suspension of affected security measures is immediately needed to protect the personal health and safety of security force personnel and no other immediately apparent action consistent with the license conditions and technical specifications can provide adequate or equivalent protection. This suspension of security measures must be approved, as a minimum, by a licensed senior operator, with input from the security supervisor or manager, before taking this action.

10 CFR 50.2 provides the following definition:

Certified fuel handler means, for a nuclear power reactor facility, a non-licensed operator who has qualified in accordance with a fuel handler training program approved by the Commission.

The permissibility and equivalency of decision-making by a CFH is reflected in 10 CFR 50.54(y), which was promulgated as part of a rulemaking to clarify and codify practices that have been accepted for licensees of a unit being decommissioned. In proposing this provision (Reference 3), the NRC explained:

A nuclear power reactor that has permanently ceased operations and no longer has fuel in the reactor vessel does not require a licensed individual to monitor core conditions. A certified fuel handler at a permanently shutdown and defueled nuclear power reactor undergoing decommissioning is an individual who has the requisite knowledge and experience to evaluate plant conditions and make these judgments.

Therefore, compliance with 10 CFR 73.55(p)(1)(i) and 10 CFR 73.55(p)(1)(ii) requiring licensed senior operator approval for a facility that is permanently shutdown and defueled is not necessary to achieve their underlying purpose of the regulations.

The specific conditions for granting an exemption from regulations in 10 CFR 73 are set forth in 10 CFR 73.5. In accordance with 10 CFR 73.5, the NRC is authorized to grant exemptions from the requirements of 10 CFR 73 as it determines: (i) are authorized by law, (ii) will not endanger life or property or the common defense and security, and (iii) are otherwise in the public interest. The following addresses each of these conditions and demonstrates that the NRC may grant the exemption request pursuant to the regulations.

(i) Authorized by Law

The exemption request from 10 CFR 73.55(p)(1)(i) and 10 CFR 73.55(p)(1)(ii) will remove the requirement that a licensed senior operator approve the suspension of security measures, under certain emergency conditions or severe weather, and aligns these regulations with 10 CFR 50.54(y) by using the authority of a CFH, as defined in 10 CFR 50.2, in place of a licensed senior operator. In accordance with 10 CFR 73.5, the NRC's regulations allow for exemptions from the regulations in 10 CFR 73 as the NRC determines are authorized by law. Therefore, granting an exemption is explicitly authorized by the NRC's regulations.

(ii) Will Not Endanger Life or Property or the Common Defense and Security

The suspended security measures will be reinstated as soon as conditions permit in accordance with 10 CFR 73.55(p)(2). The suspension of security measures for non-weather emergency conditions under 10 CFR 73.55(p)(1)(i) will continue to be invoked only "when this action is immediately needed to protect the public health and safety and no action consistent with the license conditions and technical specifications that can provide adequate or equivalent protection is immediately apparent." The suspension of security measures for severe weather under 10 CFR 73.55(p)(1)(ii) will continue to be used only when "the suspension of affected security measures is immediately needed to protect the personal health and safety of security force personnel and no other immediately apparent action consistent with the license conditions and technical specifications can provide adequate or equivalent protection." The requirement to receive input from the security supervisor or manager will remain as well.

Approval of an exemption to allow as a minimum either a CFH or a licensed senior operator to suspend security measures in an emergency or during severe weather at these units once the certifications required by 10 CFR 50.82(a)(1) have been submitted, will not endanger life or property. The CFH at each unit will be sufficiently trained and qualified to approve the suspension of security measures in accordance with the FENOC CFH training and retraining program submitted for NRC review and approval (Reference 1). The exemption would not reduce the measures currently in place to protect against radiological sabotage. In addition, the common defense and security would not be adversely affected as a result of this exemption because the exemption does not reduce the overall effectiveness of the respective physical security plans, training and qualification plans, or safeguards contingency plans.

Therefore, allowing a CFH or a licensed senior operator as a minimum to approve the suspension of security measures in an emergency or during severe weather does not adversely affect public health and safety issues or the assurance of the common defense and security.

(iii) Is Otherwise in the Public Interest

An exemption to allow either a CFH or a licensed senior operator to suspend security measures for an emergency or during severe weather at these units does not present a risk to the public health and safety. The exemption will allow a trained, qualified individual (that is, a CFH) to approve the suspension of security measures in an emergency or during severe weather. The exemption permits FENOC to implement changes to its security plans to authorize a CFH to approve temporary suspension of security regulations during an emergency or severe weather, which would align the authority given to the CFH by the NRC when it promulgated 10 CFR 50.54(y). Once the certifications of permanent cessation of power operations and of permanent removal of fuel from the respective reactor vessels are submitted for these units in accordance with 10 CFR 50.82(a)(1)(i) and (ii), licensed reactor operators will no longer be required to support facility operating activities. The exemption will maintain the current level of safety, be consistent with 10 CFR 50.54(y), and avoid an unnecessary impact on the costs associated with maintaining a redundant training program (that is, reactor operator training). Therefore, exempting requirements to obtain approval from a licensed senior operator, who is not otherwise required for a permanently shutdown and defueled reactor, before taking steps to protect the public health and safety, or to protect the safety of the security force, is in the public interest.

3. ENVIRONMENTAL ASSESSMENT

FENOC has determined that the requested exemption meets the categorical exclusion provision in 10 CFR 51.22(c)(25), as the requested licensing action is an exemption from the requirements of the NRC's regulations and: (i) there is no significant hazards consideration; (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) there is no significant increase in individual or cumulative public or occupational radiation exposure; (iv) there is no significant construction impact; (v) there is no significant increase in the potential for or consequences from radiological accidents; and (vi) the requirements from which an exemption is sought involve: safeguard plans, and materials control and accounting inventory scheduling requirements; or involve other requirements of an administrative, managerial, or organizational nature. The information provided below supports the basis for this determination.

(i) No Significant Hazards Consideration

FirstEnergy Nuclear Operating Company (FENOC) has evaluated the proposed exemption to determine whether or not a significant hazards consideration is involved by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No

The proposed exemption would allow either a licensed senior operator or a certified fuel handler (CFH) to suspend security measures in an emergency or during severe weather at the Davis-Besse Nuclear Power Station (DBNPS), Perry Nuclear Power Plant (PNPP), and Beaver Valley Power Station (BVPS) following permanent cessation of operations and permanent removal of fuel from the respective reactor vessels. The proposed exemption has no effect on facility structures, systems, and components (SSCs) and no effect on the capability of any facility SSC to perform its design function and, therefore, would not increase the likelihood of a malfunction of any facility SSC. The proposed exemption does not alter any assumptions or methodology associated with the previously evaluated accidents in the DBNPS Updated Final Safety Analysis Report, the PNPP Updated Safety Analysis Report, or the BVPS Updated Final Safety Analysis Report. The exemption will not affect the probability of occurrence of any previously analyzed accident.

The proposed exemption would allow either a licensed senior operator or a CFH to suspend security measures in an emergency or during severe weather at these units and, therefore, does not affect the ability to successfully respond to previously evaluated accidents. The exemption will not affect the consequences of any accidents previously evaluated at these units.

Therefore, the proposed exemption does not involve a significant increase in the probability or consequences of any accidents previously evaluated.

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

Response: No

The proposed exemption does not involve a physical alteration of the facility. No new or different type of equipment will be installed, and there are no physical modifications to existing equipment associated with the proposed exemption.

Similarly, the proposed exemption would not physically alter the facility or any SSCs involved in the mitigation of any accidents. Thus, no new initiators or precursors of a new or different kind of accident are created. Furthermore, the proposed exemption does not create the possibility of a new accident as a result of new failure modes associated with any equipment or personnel failures. No changes are being made to the facilities' normal parameters or in protective or mitigative action setpoints, and no new failure modes are being introduced.

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

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

Response: No

The proposed exemption would allow either a licensed senior operator or a CFH to suspend security measures in an emergency or during severe weather at these units following permanent cessation of operations and permanent removal of fuel from the respective reactor vessels. The proposed exemption does not alter the design basis or any safety limits for these units. The proposed exemption does not impact station operation or any facility SSC that is relied upon for accident mitigation.

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

Based on the above, FENOC concludes that 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) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

The proposed exemption to the security regulation is unrelated to any operational restriction. There are no changes in the types, characteristics, or quantities of effluents discharged to the environment associated with the proposed exemption. There are no materials or chemicals introduced into these facilities that could affect the characteristics or types of effluents released offsite. In addition, the method of operation of waste processing systems will not be affected by the exemption. The proposed exemption will not result in changes to the design basis requirements of SSCs that function to limit or monitor the release of effluents. All the SSCs associated with limiting the release of effluents will continue to be able to perform their functions. Therefore, the proposed exemption will result in no significant change to the types or significant increase in the amounts of any effluents that may be released offsite.

- (iii) There is no significant increase in individual or cumulative public or occupational radiation exposure.

The proposed exemption would allow either a licensed senior operator or a CFH to suspend security measures in an emergency or during severe weather at these units following permanent cessation of operations and permanent removal of fuel from the respective reactor vessels. The proposed exemption to the security regulation is unrelated to any operational restriction. There are no changes in normal occupational doses. Likewise, design basis accident dose is not impacted by the proposed exemption. Therefore, the exemption would result in no expected increases in individual or cumulative occupational radiation exposure on either the workforce or the public.

- (iv) There is no significant construction impact.

No construction activities are associated with the proposed exemption, and therefore, there is no significant construction impact.

- (v) There is no significant increase in the potential for or consequences from radiological accidents.

The proposed exemption would allow either a licensed senior operator or a CFH to suspend security measures in an emergency or during severe weather at these units following permanent cessation of operations and permanent removal of fuel from the respective reactor vessels. The proposed exemption to the security regulation does not affect the analyzed source terms, does not affect the ability to successfully respond to or mitigate any previously evaluated accidents, or the radiological assumptions used in the evaluations. The exemption will not affect the consequences of any accidents previously evaluated at these units. Therefore, the proposed exemption does not result in a significant increase in the potential for, or consequences of, a radiological accident.

- (vi) The requirements from which an exemption is sought involve: safeguard plans, and materials control and accounting inventory scheduling requirements; or involve other requirements of an administrative, managerial, or organizational nature.

The purpose of the exemption is to allow alternative action to the stated requirements in 10 CFR 73.55(p)(1)(i) and 10 CFR 73.55(p)(1)(ii) by permitting either a licensed senior operator or a CFH to approve the suspension of security measures in an emergency or during severe weather. The requirement to have a licensed senior operator or a CFH approve departure from security actions may be viewed as involving either safeguards, materials control, or managerial matters.

Therefore, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment is not required for the proposed exemption.

4. CONCLUSION

As demonstrated above, FENOC considers that this exemption request is in accordance with the criteria of 10 CFR 73.5. Specifically, the requested exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. There is no adverse environmental impact associated with this exemption request as discussed above.

5. PRECEDENT

The proposed exemption request is consistent with the exemption request for Three Mile Island Nuclear Station, Units 1 and 2, that was submitted on August 1, 2017 (Reference 4) and approved on June 7, 2018 (Reference 5).

6. REFERENCES

1. Letter from FirstEnergy Nuclear Operating Company to NRC, "Request for Approval of Certified Fuel Handler Training Program," dated August 15, 2018 (ADAMS Accession Number ML18227A019).
2. Letter from FirstEnergy Nuclear Operating Company to NRC, "Certification of Permanent Cessation of Power Operations for Beaver Valley Power Station, Unit Nos. 1 and 2, Davis-Besse Nuclear Power Station, Unit No. 1, and Perry Nuclear Power Plant, Unit No. 1," dated April 25, 2018 (ADAMS Accession Number ML18115A007).
3. Federal Register Notice, Vol. 60, No. 139 (60 FR 37374), "Decommissioning of Nuclear Power Reactors," dated July 20, 1995.
4. Letter from Exelon Generation Company, LLC to NRC, "Request for Exemption from Specific Provisions in 10 CFR 73.55(p)(1)(i) and (p)(1)(ii) Related to the Suspension of Security Measures in an Emergency or During Severe Weather," dated August 1, 2017 (ADAMS Accession Number ML17213A097).
5. Letter from NRC to Exelon Generation Company, LLC, "Three Mile Island Nuclear Station, Units 1 and 2 - Exemption from the Requirements of 10 CFR 73.55(p)(1)(i) and (ii) Related to the Suspension of Security Measures in an Emergency or During Severe Weather (CAC No. MG0049; EPID L-2017-LLE-0018)," dated June 7, 2018 (ADAMS Accession Number ML18019A019).