

NUCLEAR REGULATORY COMMISSION

Docket Nos. 50-334, 50-412, 50-346, and 50-440

FirstEnergy Nuclear Operating Company

**Beaver Valley Power Station, Unit Nos. 1 and 2
Davis-Besse Nuclear Power Station, Unit No. 1
Perry Nuclear Power Plant, Unit No. 1**

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

I. Background.

FirstEnergy Nuclear Operating Company (FENOC) and FirstEnergy Nuclear Generation, LLC (collectively, the licensee), are the holders of the following operating licenses:

(1) Renewed Facility Operating License Nos. DPR-66 and NPF-73, at Beaver Valley Power Station, Unit Nos. 1 and 2 (Beaver Valley), issued on November 5, 2009; (2) Renewed Facility Operating License No. NPF-3 at Davis-Besse Nuclear Power Station (Davis-Besse), Unit No. 1, issued on December 8, 2015; and (3) Facility Operating License No. NPF-58 at Perry Nuclear Power Plant (Perry), Unit No. 1, issued on November 13, 1986. The licenses provide, among other things, that the facilities are subject to all rules, regulations, and orders of the U.S. Nuclear Regulatory Commission (NRC), now or hereafter in effect.

By letter dated April 25, 2018 (Agencywide Document Access and Management System (ADAMS) Accession No. ML18115A007), FENOC submitted formal notification to the NRC pursuant to paragraph 50.82(a)(1)(i) to Title 10 of the *Code of Federal Regulations* (10 CFR) and 10 CFR 50.4(b)(8) of the intention to permanently cease power operations at the Davis-Besse, Unit No. 1, by May 31, 2020; the Perry, Unit No. 1, and the Beaver Valley, Unit No. 1, by May 31, 2021; and the Beaver Valley, Unit No. 2, by October 31, 2021.

Pursuant to 10 CFR 50.82(a)(2), upon docketing of the certifications for permanent cessation of operations and of permanent removal of fuel from the reactor vessel, the 10 CFR

50 license no longer authorize reactor operation or emplacement or retention of fuel in the reactor vessel. As a result, licensed senior operators (i.e., individual licensed under 10 CFR Part 55 to manipulate the controls of a facility and to direct the licensed activities of licensed operators) will no longer be required to support plant operating activities. Instead, certified fuel handlers (CFHs) (i.e., non-licensed operators who have qualified in accordance with a fuel handler training program approved by the Commission) will perform activities associated with decommissioning, irradiated fuel handling, and management. Approval of a fuel handler training program is needed to facilitate these activities.

By letter dated August 15, 2018 (ADAMS Accession No. ML18227A019), FENOC submitted a request for NRC approval of the CFH Training and Retraining Program for these units. By letter dated April 11, 2019 (ADAMS Accession No. ML19028A030), the NRC approved the CFH Training and Retraining Program for the above mentioned FENOC facilities.

II. Request/Action.

The Commission's regulation at 10 CFR 73.55(p)(1) addresses the suspension of security measures in an emergency (73.55(p)(1)(i)) and during severe weather (73.55(p)(1)(ii)) saying:

The licensee may suspend implementation of affected requirements of this section under the following conditions:

(i) In accordance with §§ 50.54(x) and 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.

On September 11, 2018 (ADAMS Accession No. ML18254A290), FENOC requested an exemption from the portions of 10 CFR 73.55(p)(1)(i) and (ii) that require the suspension of security measures to be approved as a minimum by a licensed senior operator. The proposed exemption would allow the licensee to use a CFH to approve the suspension of security measures.

The NRC's security rules have long recognized the potential need to suspend security or safeguards measures under certain conditions. Accordingly, 10 CFR 50.54(x) and (y), first published in 1983, allow a licensee to take reasonable steps in an emergency that deviate from license conditions when those steps are "needed to protect the public health and safety" and there are no conforming comparable measures (48 FR 13970; April 1, 1983). As originally issued, the deviation from license conditions must be approved by, as a minimum, a licensed senior operator. In 1986, in its final rule, "Miscellaneous Amendments Concerning the Physical Protection of Nuclear Power Plants" (51 FR 27821; August 4, 1986), the Commission issued 10 CFR 73.55(a), stating in part:

In accordance with § 50.54 (x) and (y) of Part 50, the licensee may suspend any safeguards measures pursuant to § 73.55 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 specification that can provide adequate or equivalent protection is immediately apparent. This suspension must be approved as a minimum by a licensed senior operator prior to taking the action.

In 1996, the NRC made a number of regulatory changes to address decommissioning. One of the changes was to amend 10 CFR 50.54(x) and (y) to authorize a non-licensed operator called a "certified fuel handler," in addition to a licensed senior operator, to approve such protective steps. Specifically, in addressing the role of the CFH during emergencies, the

Commission stated in the proposed rule, “Decommissioning of Nuclear Power Reactors”

(60 FR 37379; July 20, 1995):

The Commission is proposing to amend 10 CFR 50.54(y) to permit a certified fuel handler at nuclear power reactors that have permanently ceased operations and permanently removed fuel from the reactor vessel, subject to the requirements of § 50.82(a) and consistent with the proposed definition of “Certified Fuel Handler” specified in § 50.2, to make these evaluations and judgments. 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.

In the final rule (61 FR 39298; July 29, 1996), the NRC added the following definition to 10 CFR 50.2, “[c]ertified 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.” However, the decommissioning rule did not propose or make parallel changes to 10 CFR 73.55(a), and did not discuss the role of a non-licensed CFH.

In the final rule, “Power Reactor Security Requirements” (74 FR 13926; March 27, 2009), the NRC relocated the security suspension requirements from 10 CFR 73.55(a) to 10 CFR 73.55(p)(1)(i) and (ii). The role of a CFH was not discussed in the rulemaking, so the suspension of security measures in accordance with 10 CFR 73.55(p) continue to require approval, as a minimum, by a licensed senior operator, even for a site that otherwise no longer operates.

III. Discussion.

Under 10 CFR 73.5, the Commission may, upon application by any interested person or upon its own initiative, grant an exemption from the requirements of 10 CFR part 73, when 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. As explained below, the proposed exemption is

lawful, will not endanger life or property or the common defense and security, and is otherwise in the public interest.

A. Authorized by Law.

The exemption would permit a CFH to approve the suspension of security measures during emergencies or severe weather. Although the exemption is effective upon receipt, the actions permitted by the exemption may not be implemented at a facility until the 10 CFR part 50 license no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel in accordance with 10 CFR 50.82(a)(2). The licensee intends to align these regulations with 10 CFR 50.54(y) by authorizing a CFH, in addition to a licensed senior operator, to approve the suspension of security measures during emergencies or severe weather.

Per 10 CFR 73.5, the NRC is authorized to grant specific exemptions from the requirements of 10 CFR part 73. Issuance of this exemption is consistent with the Atomic Energy Act of 1954, as amended, and not otherwise inconsistent with NRC regulations or other applicable laws. Therefore, the exemption is authorized by law.

B. Will Not Endanger Life or Property or the Common Defense and Security.

The NRC staff determined that the requested exemption would not endanger life or property, or the common defense and security. The requested exemption would permit a CFH to approve suspension of security measures during emergencies or severe weather. The NRC staff finds that the exemption does not endanger life or property, or the common defense and security for the reasons discussed below.

First, 10 CFR 73.55(p)(2) continues to require that “[s]uspended security measures must be reinstated as soon as conditions permit.”

Second, the suspension of security measures for emergencies 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 license conditions and technical specifications that can provide adequate or equivalent protection is immediately apparent.” Thus, the exemption would not prevent the licensee from meeting the underlying purpose of 10 CFR 73.55(p)(1)(i), to protect public health and safety.

Third, 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 in 10 CFR 73.55(p)(1)(ii) to receive input from the security supervisor or manager will remain. Therefore, the exemption would not prevent the licensee from meeting the underlying purpose of 10 CFR 73.55(p)(1)(ii) to protect the health and safety of the security force.

Additionally, by letter dated April 11, 2019, the NRC approved FENOC’s CFH Training and Retraining Program for the aforementioned FENOC facilities. The NRC staff found that, among other things, the program addresses the safe conduct of decommissioning activities, safe handling and storage of spent fuel, and the appropriate response to plant emergencies. Because a CFH is sufficiently trained and qualified under an NRC-approved program, the NRC staff considers a CFH to have sufficient knowledge of operational and safety concerns, such that allowing a CFH to suspend security measures during emergencies or severe weather will not result in undue risk to public health and safety.

In addition, since the exemption request allows a CFH the same authority currently given to the licensed senior operator under 10 CFR 73.55(p)(1)(i) and (ii), no change is required to physical security. Since no change is required to physical security, the exemption would not reduce the overall effectiveness of the physical security plan and would not adversely impact

the licensee's ability to physically secure the site or protect special nuclear material at Davis-Besse, Unit No. 1; Perry, Unit No. 1; and Beaver Valley, Unit Nos. 1 and 2, and thus, would not have an effect on the common defense and security. The NRC staff has concluded that the exemption does not reduce security measures currently in place to protect against radiological sabotage. Therefore, allowing a CFH, besides a licensed senior operator, to approve the suspension of security measures during an emergency or severe weather, will not endanger life, property, or the common defense and security.

C. Otherwise in the Public Interest.

FENOC's proposed exemption would allow a CFH, besides a licensed senior operator, to approve suspension of security measures during an emergency when "immediately needed to protect the public health and safety" or severe weather when "immediately needed to protect the personal health and safety of security force personnel." If the exemption is not granted, Davis-Besse, Perry, and Beaver Valley, will be required to have a licensed senior operator available to approve suspension of security measures during severe weather and emergencies for a permanently shutdown plant, even though there would no longer be a requirement for a licensed senior operator after the certifications required by 10 CFR 50.82(a)(1)(i) and (ii) are submitted.

This exemption is in the public interest for two reasons. First, without the exemption, there is uncertainty regarding how the licensee will invoke temporary suspension of security measures that may be needed for protecting public health and safety or the safety of the security force personnel during emergencies and severe weather given the differences as explained in "**Request/Action**" above, between the requirements in 10 CFR 73.55(p)(1)(i) and (ii) and 10 CFR 50.54(y). The exemption would allow the licensee to make decisions pursuant to 10 CFR 73.55(p)(1)(i) and (ii) without having to maintain a staff of licensed senior operators. The exemption would also allow the licensee to have an established procedure in place to allow

a trained CFH to suspend security measures in the event of an emergency or severe weather. Second, the consistent and efficient regulation of nuclear power plants serves the public interest. This exemption would assure consistency between the security regulations in 10 CFR part 73 and 10 CFR 50.54(y) and the requirements concerning licensed operators in 10 CFR part 55.

The NRC staff has determined that granting the licensee's proposed exemption would allow the licensee to designate a CFH with qualifications appropriate for a permanently shutdown and defueled reactor to approve the suspension of security measures during an emergency. This role of the CFH to protect the public health and safety, and during severe weather to protect the safety of the security force personnel, is consistent with the similar authority provided by 10 CFR 50.54(y). Therefore, the exemption is in the public interest.

D. Environmental Consideration.

The NRC's approval of the exemption to security requirements belongs to a category of actions that the Commission, by rule or regulation, has declared to be a categorical exclusion, after first finding that the category of actions does not individually or cumulatively have a significant effect on the human environment. Specifically, the exemption is categorically excluded from further analysis under 10 CFR 51.22(c)(25).

Under 10 CFR 51.22(c)(25), the granting of an exemption from the requirements of any regulation of chapter 10 is a categorical exclusion provided that (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: recordkeeping requirements; reporting requirements; inspection or surveillance requirements;

equipment servicing or maintenance scheduling requirements; education, training, experience, qualification, requalification or other employment suitability requirements; safeguard plans, and materials control and accounting inventory scheduling requirements; scheduling requirements; surety, insurance or indemnity requirements; or other requirements of an administrative, managerial, or organizational nature.

The Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation, has determined that the granting of the exemption request involves no significant hazards consideration because allowing a CFH, besides a licensed senior operator, to approve the security suspension at a defueled shutdown power plant does not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. The exempted security regulation is unrelated to any operational restriction. Accordingly, there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and no significant increase in individual or cumulative public or occupational radiation exposure. The exempted regulation is not associated with construction, so there is no significant construction impact. The exempted regulation does not concern the source term (i.e., potential amount of radiation in an accident) nor mitigation. Thus, there is no significant increase in the potential for, or consequences of, a radiological accident. The requirement to have a licensed senior operator approve departure from security actions is viewed as involving safeguards, materials control, and managerial matters.

Therefore, pursuant to 10 CFR 51.22(b) and (c)(25), no environmental impact statement or environmental assessment need be prepared in connection with the approval of this exemption request.

IV. Conclusion

The NRC has determined that, pursuant to 10 CFR 73.5, this exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the Commission hereby grants the licensee's request for an exemption from the requirements of 10 CFR 73.55(p)(1)(i) and (ii) to authorize that the suspension of security measures must be approved, as a minimum, by either a licensed senior operator or a CFH at applicable FENOC facilities during emergency or severe weather, once the certifications required under 10 CFR 50.82(a)(1) have been submitted.

The exemption is effective upon receipt.

Dated at Rockville, Maryland, this 4th day of June 2019.

For the Nuclear Regulatory Commission.

/RA/

Craig G. Erlanger, Director,
Division of Operating Reactor Licensing,
Office of Nuclear Reactor Regulation.