

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-285; NRC-2017-0223]

Omaha Public Power District; Fort Calhoun Station, Unit No. 1

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of exemptions in response to a request from Omaha Public Power District (OPPD or the licensee) that would permit the licensee to reduce its emergency planning (EP) activities at the Fort Calhoun Station, Unit No. 1 (Fort Calhoun). The licensee is seeking exemptions that would eliminate the requirements for the licensee to maintain formal offsite radiological emergency plans, and reduce some of the onsite EP activities, based on the reduced risks at Fort Calhoun, which is permanently shutdown and defueled. However, requirements for certain onsite capabilities to communicate and coordinate with offsite response authorities, in the event of an emergency at Fort Calhoun, would be retained. The NRC staff is issuing an environmental assessment (EA) and finding of no significant impact (FONSI) associated with the proposed exemptions.

DATES: The EA and FONSI referenced in this document are available on November 21, 2017.

ADDRESSES: Please refer to Docket ID **NRC-2017-0223** 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 Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2017-0223**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: Carol.Gallagher@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 <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then 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 e-mail to pdr.resource@nrc.gov. For the convenience of the reader, the ADAMS accession numbers are provided in a table in the "Availability of Documents" section of this document.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: James Kim, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-4125; e-mail: James.Kim@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

Fort Calhoun is a permanently shutdown and defueled nuclear power plant, located in Washington County, Nebraska, which is in the process of decommissioning.

The licensee is the holder of Renewed Facility Operating License No. DPR-40 for operation of Fort Calhoun. Fort Calhoun has been shut down since October 24, 2016, and the final removal of fuel from its reactor vessel was completed on November 13, 2016. By letter dated November 13, 2016, OPPD submitted to the NRC a certification of the permanent cessation of power operations at Fort Calhoun and the permanent removal of fuel from the Fort Calhoun reactor vessel. As a permanently shutdown and defueled facility, and pursuant to section 50.82(a)(2) of title 10 of the *Code of Federal Regulations* (10 CFR), Fort Calhoun is no longer authorized to be operated or to have fuel placed into its reactor vessel. However, the licensee is still authorized to possess and store irradiated nuclear fuel, which is currently stored onsite at Fort Calhoun in a spent fuel pool and in an independent spent fuel storage installation.

The licensee has requested exemptions for Fort Calhoun from certain EP requirements in 10 CFR part 50, "Domestic Licensing of Production and Utilization Facilities." The NRC regulations concerning EP do not recognize the reduced risks after a reactor is permanently shut down and defueled. As such, a permanently shutdown and defueled reactor such as Fort Calhoun must continue to maintain the same EP requirements as an operating power reactor under the existing regulatory requirements. To establish a level of EP commensurate with the reduced risks of a permanently shutdown and defueled reactor, OPPD requires exemptions from certain EP regulatory requirements before it can change its emergency plans.

The NRC is considering issuing exemptions from portions of 10 CFR 50.47, "Emergency plans," and 10 CFR part 50, appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to OPPD, which would eliminate the requirements for OPPD to maintain offsite radiological emergency plans and reduce some of the onsite EP activities, based on the reduced risks at Fort Calhoun, due to its permanently shutdown and defueled status. Consistent with 10 CFR 51.21, the NRC

has reviewed the requirements in 10 CFR 51.20(b) and 10 CFR 51.22(c) and determined that an EA is the appropriate form of environmental review for the requested action. Based on the results of the EA, which is provided in Section II of this document, the NRC has determined not to prepare an environmental impact statement for the proposed action, and is issuing a FONSI.

II. Environmental Assessment

Description of the Proposed Action

The proposed action would exempt OPPD from meeting certain requirements set forth in 10 CFR 50.47 and appendix E to 10 CFR part 50. More specifically, OPPD requested exemptions from: 1) certain requirements in 10 CFR 50.47(b) regarding onsite and offsite emergency response plans for nuclear power reactors; 2) certain requirements in 10 CFR 50.47(c)(2) to establish plume exposure and ingestion pathway emergency planning zones for nuclear power reactors; and 3) certain requirements in 10 CFR part 50, appendix E, section IV, which establishes the elements that make up the content of a licensee's emergency plan. The proposed action of granting these exemptions would eliminate the requirements for OPPD to maintain formal offsite radiological emergency plans, as described in 44 CFR part 350, and reduce some of the onsite EP activities at Fort Calhoun, based on the reduced risks at the permanently shutdown and defueled reactor. However, requirements for certain onsite capabilities to communicate and coordinate with offsite response authorities, in the event of an emergency at Fort Calhoun, would be retained. Additionally, if necessary, offsite protective actions could still be implemented using a comprehensive emergency management plan (CEMP) process. A CEMP in this context, also referred to as an emergency operations plan, is addressed in the Federal Emergency Management

Agency's Comprehensive Preparedness Guide (CPG) 101. The CPG 101 is the foundation for State, territorial, Tribal, and local EP in the United States. It promotes a common understanding of the fundamentals of risk-informed planning and decision making, and helps planners at all levels of government in their efforts to develop and maintain viable, all-hazards, all-threats emergency plans. An emergency operations plan is flexible enough for use in all emergencies. It describes how people and property will be protected; details regarding who is responsible for carrying out specific actions; identifies the personnel, equipment, facilities, supplies, and other resources available; and outlines the process by which all actions will be coordinated. A CEMP is often referred to as a synonym for "all-hazards planning."

The proposed action is in accordance with the licensee's application dated December 16, 2016, as supplemented by letters dated February 10, April 14, and April 20, 2017, in which OPPD provided responses to the NRC staff's requests for additional information concerning the proposed exemptions.

Need for the Proposed Action

The proposed action is needed for OPPD to revise Fort Calhoun's Emergency Plan to reflect the permanently shutdown and defueled status of the facility. The EP requirements currently applicable to Fort Calhoun are for an operating power reactor. There are no explicit regulatory provisions distinguishing EP requirements for a power reactor that has been permanently shut down and defueled, from those for an operating power reactor. Therefore, since the 10 CFR part 50 license for Fort Calhoun no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel, as specified in 10 CFR 50.82(a)(2), the occurrence of postulated accidents associated with reactor operation is no longer credible.

In its exemption request, the licensee identified the remaining possible accidents at Fort Calhoun in its permanently shutdown and defueled condition. The NRC staff evaluated these possible radiological accidents, as memorialized in the Commission Paper (SECY)-17-0080, "Request by the Omaha Public Power District for Exemptions from Certain Emergency Planning Requirements for the Fort Calhoun Station, Unit No. 1," dated August 10, 2017. In SECY-17-0080, the NRC staff stated that it had verified that OPPD's analyses and calculations provided reasonable assurance that if the requested exemptions were granted, then: 1) for a design-basis accident, an offsite radiological release will not exceed the U.S. Environmental Protection Agency's Protective Action Guides (PAGs) at the exclusion area boundary, as detailed in the Environmental Protection Agency "PAG Manual: Protective Action Guides and Planning Guidance for Radiological Incidents," January 2017; and 2) in the unlikely event of a beyond design-basis accident, resulting in a loss of all spent fuel pool cooling, there is sufficient time to initiate appropriate mitigating actions on site and, if a release is projected to occur, there is sufficient time for offsite agencies to take protective actions using a CEMP to protect the public health and safety. The Commission approved the NRC staff's recommendation to grant the exemptions, based on this evaluation in its Staff Requirements Memorandum (SRM) to SECY-17-0080, dated October 25, 2017.

Based on these analyses, the licensee stated that complete application of the EP rule to Fort Calhoun, in its particular circumstances as a permanently shutdown and defueled reactor, would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule. The licensee also stated that it would incur undue costs in the application of operating plant EP requirements for the maintenance of an emergency response organization in excess of that actually needed

to respond to the diminished scope of credible accidents for a permanently shutdown and defueled reactor.

Environmental Impacts of the Proposed Action

Based on the conclusions reached in SECY-17-0080, the NRC staff concludes that the exemptions, if granted, would not significantly increase the probability or consequences of accidents at Fort Calhoun in its permanently shutdown and defueled condition. There would be no significant change in the types of any effluents that may be released offsite. There would be no significant increase in the amounts of any effluents that may be released offsite. There would be no significant increase in individual or cumulative occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action does not have any foreseeable impacts to land, air, or water resources, including impacts to biota. In addition, there are no known socioeconomic or environmental justice impacts associated with the proposed action. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered the denial of the proposed action (i.e., the “no-action” alternative). The denial of the proposed action would not result in a change to the current environmental impacts. Therefore, the environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources

The proposed action does not involve the use of any different resources than those considered in the Final Environmental Statement for the Fort Calhoun Station, Unit No. 1 dated August 1972 as supplemented through the “Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Fort Calhoun Station Unit 1 - Final Report (NUREG-1437, Supplement 12).”

Agencies or Persons Consulted

The NRC staff did not enter into consultation with any other Federal agency or with the State of Nebraska regarding the environmental impact of the proposed action. On October 5, 2017, the Nebraska state representative was notified of this EA and FONSI.

III. Finding of No Significant Impact

The licensee has proposed exemptions from: 1) certain requirements in 10 CFR 50.47(b) regarding onsite and offsite emergency response plans for nuclear power reactors; 2) certain requirements in 10 CFR 50.47(c)(2) to establish plume exposure and ingestion pathway emergency planning zones for nuclear power reactors; and 3) certain requirements in 10 CFR part 50, appendix E, section IV, which establishes the elements that make up the content of a licensee’s emergency plan. The proposed action of granting these exemptions would eliminate the requirements for the licensee to maintain formal offsite radiological emergency plans, as described in 44 CFR part 350, and reduce some of the onsite EP activities at Fort Calhoun, based on the reduced risks at the permanently shutdown and defueled reactor. However, requirements for certain onsite capabilities to communicate and coordinate with offsite response authorities following declaration of an emergency at Fort Calhoun will be retained and offsite “all hazards” EP provisions will still exist through State and local government use of a CEMP.

Consistent with 10 CFR 51.21, the NRC conducted the EA for the proposed action, which is included in Section II of this document, and incorporated by reference in this finding. On the basis of this EA, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has decided not to prepare an environmental impact statement for the proposed action.

IV. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

Document	ADAMS Accession No. / Web link
Developing and Maintaining Emergency Operations Plans, Comprehensive Preparedness Guide (CPG) 101, Version 2.0, November 2010.	http://www.fema.gov/pdf/about/divisions/npd/CPG_101_V2.pdf
Docket No. 50-285, Request for Exemptions from Portions of 10 CFR 50.47 and 10 CFR Part 50, Appendix E, dated December 16, 2016.	ADAMS Accession No. ML16356A578
Docket No. 50-285, Supplemental Information Needed For Acceptance of Requested Licensing Action RE: Fort Calhoun Station Request for Exemptions from Portions of 10 CFR 50.47 and 10 CFR Part 50, Appendix E, dated February 10, 2017.	ADAMS Accession No. ML17041A443
Docket No. 50-285, Response to Request for Additional Information, Fort Calhoun Station, Unit No. 1 - Final Request for Additional Information Concerning Exemption from the Requirements of 10 CFR 50.47 and Appendix E, dated April 14, 2017.	ADAMS Accession No. ML17104A191
Docket No. 50-285, Response to Request for Additional Information, Fort Calhoun Station, Unit No. 1 - Request for Additional Information RE: Defueled Emergency Plan Exemption Request, dated April 20, 2017.	ADAMS Accession No. ML17111A857

Document	ADAMS Accession No. / Web link
PAG Manual: Protective Action Guides and Planning Guidance for Radiological Incidents, U.S. Environmental Protection Agency, January 2017.	ADAMS Accession No. ML17044A073
SECY-17-0080, "Request by the Omaha Public Power District for Exemptions from Certain Emergency Planning Requirements for the Fort Calhoun Station, Unit No. 1," dated August 10, 2017.	ADAMS Accession No. ML17116A430
Staff Requirements Memorandum to SECY-17-0080, dated October 25, 2017.	ADAMS Accession No. ML17298A976
Staff Requirements Memorandum to SECY-08-0024, "Delegation of Commission Authority to Staff to Approve or Deny Emergency Plan Changes that Represent a Decrease in Effectiveness," dated May 19, 2008.	ADAMS Accession No. ML081400510
NUREG-1437, Supplement 12, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding Fort Calhoun Station Unit 1," August 2003.	ADAMS Accession No. ML032110191

Dated at Rockville, Maryland, this 21st day of November, 2017.

For the Nuclear Regulatory Commission.

/RA/

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