

POLICY ISSUE

Notation Vote

August 10, 2017

SECY-17-0080

FOR: The Commissioners

FROM: Victor M. McCree
Executive Director for Operations

SUBJECT: REQUEST BY THE OMAHA PUBLIC POWER DISTRICT FOR
EXEMPTIONS FROM CERTAIN EMERGENCY PLANNING
REQUIREMENTS FOR THE FORT CALHOUN STATION, UNIT 1

PURPOSE:

The purpose of this paper is to request Commission approval of Omaha Public Power District's (OPPD) request for exemptions from certain emergency planning (EP) requirements of Part 50, "Domestic Licensing of Production and Utilization Facilities," to Title 10, "Energy," of the *Code of Federal Regulations* (10 CFR). OPPD's proposed exemptions would reduce the EP requirements placed by the U.S. Nuclear Regulatory Commission (NRC) on the licensee commensurate with the permanent cessation of operations and permanent removal of spent fuel from the reactor vessel to the spent fuel pool (SFP) at the Fort Calhoun Station, Unit 1 (FCS) site. The proposed exemption, if approved, would eliminate the requirement for the licensee to maintain formal offsite radiological emergency preparedness plans, but would still require the licensee to maintain certain onsite capabilities to communicate and coordinate with offsite response authorities. This paper does not address any new commitments or resource implications.

BACKGROUND:

The EP requirements of 10 CFR 50.47, "Emergency plans," and Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to 10 CFR Part 50 continue to apply to a nuclear power reactor after certification of permanent cessation of operations and removal of fuel from the reactor vessel under 10 CFR 50.82(a)(1). However, the regulations in 10 CFR 50.12(a)(2)(ii) provide that the NRC may, upon request by a licensee or on its own initiative, grant exemptions from the requirements of the regulations in 10 CFR Part 50 when application of the regulation would not serve or is not necessary to achieve the underlying purpose of the rule.

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In the 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 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML081400510), the Commission directed that the staff should request Commission approval for any reduction in effectiveness of a licensee's emergency plan that requires an exemption from the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. Consistent with this Commission direction, this paper seeks Commission approval of OPPD's requested exemptions from certain EP requirements for FCS.

DISCUSSION:

By letter dated August 25, 2016 (ADAMS Accession No. ML16242A127), OPPD certified to the NRC that it planned to permanently cease power operations at FCS on October 24, 2016, in accordance with 10 CFR 50.82(a)(1)(i) and 10 CFR 50.4(b)(8). By letter dated November 13, 2016 (ADAMS Accession No. ML16319A254), pursuant to 10 CFR 50.82(a)(1)(ii), OPPD certified to the NRC that all fuel had been permanently removed from the FCS reactor vessel and placed into the FCS SFP. Therefore, pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for FCS no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel.

By letter dated December 16, 2016 (ADAMS Accession No. ML16356A578), as supplemented by letters dated February 10, 2017, April 14, 2017, and April 20, 2017 (ADAMS Accession Nos. ML17041A443, ML17104A191, and ML17111A857, respectively), OPPD requested exemptions from specific portions of 10 CFR 50.47 and Appendix E to 10 CFR Part 50 for FCS.

To establish a level of EP commensurate with the risk of a radiological emergency at a decommissioning power reactor site, licensees typically request exemptions from certain EP requirements early in the decommissioning process. The NRC reviews each request on a case-by-case basis and grants exemptions only after conducting a thorough analysis of each request. Historically, given the significant reduction in radiological risk from a decommissioning site, the NRC has approved exemptions from EP requirements based on site-specific evaluations and the objectives of the regulations. Between 1987 and 1999 the NRC issued exemptions from EP requirements for 10 licensees. More recently, exemptions from EP requirements have been granted for the Kewaunee Power Station, Crystal River Nuclear Power Station Unit 3, San Onofre Nuclear Generating Station Units 2 and 3, and Vermont Yankee Nuclear Power Station.

Based on these recent exemptions, the staff issued an Office of Nuclear Security and Incident Response (NSIR), Division of Preparedness and Response (DPR) Interim Staff Guidance (ISG) document, NSIR/DPR-ISG-02, "Emergency Planning Exemption Requests for Decommissioning Nuclear Power Plants" (ADAMS Accession No. ML14106A057). This ISG provides guidance to NRC staff for its technical review of requests for exemptions from the EP requirements for nuclear power reactors that have been permanently shut down and defueled or are planning to transition to decommissioning.

Evaluation of EP Exemptions

In evaluating OPPD's proposed exemptions, the staff reviewed the recent EP exemptions granted for decommissioning nuclear power reactors, recent SFP studies, SFP mitigation strategies, and hostile action-based event considerations, which are discussed in Enclosure 1, "Historical Perspective and Staff Evaluation Considerations." The staff also performed a technical evaluation of OPPD's requested exemptions using the evaluation criteria specified in Section 5, "Evaluation of Exemptions to EP Regulations," to NSIR/DPR-ISG-02. The outcome of this evaluation, as well as the staff's evaluation of OPPD's requested exemptions against the requirements in 10 CFR 50.47, Appendix E to 10 CFR Part 50, and 10 CFR 72.32, "Emergency Plan," are detailed in Enclosure 2, "Evaluation of Request For Exemptions From Certain Emergency Planning Requirements For The Fort Calhoun Station, Unit 1."

Based on its evaluation, the staff concluded that granting the requested exemption to OPPD would provide reasonable assurance that: (1) an offsite radiological release will not exceed the limits of the U.S. Environmental Protection Agency's early phase protective action guide of one roentgen equivalent man (rem) at the site's exclusion area boundary for remaining applicable design-basis accidents (DBAs); and (2) in the unlikely event of a beyond DBA resulting in a loss of all SFP cooling, there would be sufficient time to initiate appropriate SFP mitigating actions and, if a release is projected to occur, there is sufficient time for offsite agencies to take protective actions to protect the health and safety of the public using a comprehensive, "all-hazards," emergency management plan.¹

Federal Emergency Management Agency Consultation

Consistent with the December 7, 2015, "Memorandum of Understanding Between the Department of Homeland Security/Federal Emergency Management Agency and Nuclear Regulatory Commission Regarding Radiological Response, Planning and Preparedness" (ADAMS Accession No. ML15344A371), on May 31, 2017 (ADAMS Accession No. ML17124A273), the staff documented the transmittal to FEMA, by electronic mail, a draft of this SECY paper and the opportunity to ask questions, obtain clarification, and comment on the paper before the Commission received it for review. In a letter dated June 12, 2017 (ADAMS Accession No. ML17164A216), FEMA provided the following statement that supports granting the exemption:

FEMA Headquarters and Region VII consulted with the Nebraska Emergency Management Agency (NEMA) and Iowa Homeland Security and Emergency Management Division (IHSEMD) concerning this exemption request. Neither state anticipates any significant reduction in response capabilities at the state or local levels due to the Fort Calhoun Station decommissioning, nor do the states expect to lose any full time employees or other staffing capabilities. There may be some budget reallocation required to address some funding areas (namely salaries), but there is no anticipation of any loss or noticeable reduction of response capabilities.

Specific FEMA comments on offsite radiological emergency preparedness considerations in their June 12, 2017, letter is included in Enclosure 1.

¹ A comprehensive emergency management plan in this context, also referred to as an emergency operations plan, is addressed in the Federal Emergency Management Agency's (FEMA) Comprehensive Preparedness Guide 101, "Developing and Maintaining Emergency Operations Plans," Version 2.0, dated November 2010. https://www.fema.gov/media-library-data/20130726-1828-25045-0014/cpg_101_comprehensive_preparedness_guide_developing_and_maintaining_emergency_operations_plans_2010.pdf.

CONCLUSION:

The NRC staff concludes that granting the exemption request, as justified in Enclosure 2 would provide: (1) an adequate basis for an acceptable state of emergency preparedness; and (2) assurance that adequate protective measures can and will be taken in the highly unlikely event of a radiological emergency at FCS.

The NRC staff has determined that pursuant to 10 CFR 50.12, "Specific Exemptions", the exemptions described in the enclosure are authorized by law, will not present an undue risk to the public health and safety, and will be consistent with the common defense and security, and special circumstances are present.

RECOMMENDATION:

The NRC staff recommends that the Commission approve OPPD's requested EP exemptions from certain requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50.

COORDINATION:

The Office of the General Counsel reviewed this paper and has no legal objection.

/RA by Frederick D. Brown for/

Victor M. McCree
Executive Director for
Operations

Enclosures:

1. Historical Perspective and Staff Evaluation Considerations
2. Evaluation of Omaha Public Power District's Request for Exemptions From Emergency Planning Requirements For The Fort Calhoun Station, Unit 1

SUBJECT: REQUEST BY THE OMAHA PUBLIC POWER DISTRICT FOR EXEMPTIONS FROM CERTAIN EMERGENCY PLANNING REQUIREMENTS FOR THE FORT CALHOUN STATION, UNIT 1, DATED: August 10, 2017

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ADAMS ACCESSION No.: ML17116A430 (Package); ML17116A420 (SECY Paper); ML17116A448 (Enclosure 1); ML17116A465 (Enclosure 2)

*See previous concurrence

**E-mail concurrence

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