



POLICY ISSUE **(Notation Vote)**

August 9, 2019

SECY-19-0078

FOR: The Commissioners

FROM: Margaret M. Doane
Executive Director for Operations

SUBJECT: REQUEST BY ENTERGY NUCLEAR OPERATIONS, INC. FOR EXEMPTIONS
FROM CERTAIN EMERGENCY PLANNING REQUIREMENTS FOR THE
PILGRIM NUCLEAR POWER STATION

PURPOSE:

The purpose of this paper is to request Commission approval of Entergy Nuclear Operations, Inc.'s (Entergy) request for exemptions from certain emergency preparedness/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). Entergy's proposed exemptions would scale 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 Pilgrim Nuclear Power Station (PNPS) site. The proposed exemptions, 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

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operations and removal of fuel from the reactor vessel under 10 CFR 50.82(a)(1). 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.

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 as a licensee transitions from an operating reactor site to a decommissioning site, the NRC has approved exemptions from certain EP requirements based on site-specific evaluations and the objectives of the regulations.

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 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. Although the exemptions that the staff proposes to grant will maintain the same level of effectiveness for the decommissioning reactor site that NRC regulations provide for operating power reactors, the staff in this paper seeks Commission approval of Entergy's requested exemptions because of their regulatory significance.

DISCUSSION:

By letter dated November 10, 2015 (ADAMS Accession No. ML15328A053), Entergy certified to the NRC that it planned to permanently cease power operations at PNPS no later than June 1, 2019, in accordance with 10 CFR 50.82(a)(1)(i). PNPS subsequently permanently ceased power operations on May 31, 2019. By letter dated June 10, 2019 (ADAMS Accession No. ML19161A033), pursuant to 10 CFR 50.82(a)(1)(ii), Entergy certified that all fuel had been permanently removed from the PNPS reactor vessel and placed in the SFP on June 9, 2019. Upon the NRC's docketing of Entergy's certification that all fuel has been permanently removed from the PNPS reactor vessel and placed into the PNPS SFP, pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for PNPS no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel.

By letter dated July 3, 2018 (ADAMS Accession No. ML18186A635), as supplemented by letters dated November 30, 2018, December 4, 2018 and February 18, 2019 (ADAMS Accession Nos. ML18338A205, ML18341A219 and ML19056A260, respectively), Entergy requested exemptions from specific portions of 10 CFR 50.47 and Appendix E to 10 CFR Part 50 for PNPS.

Evaluation of EP Exemptions

In evaluating Entergy's proposed exemptions, the staff reviewed recent similar 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 Entergy's requested exemptions using the evaluation criteria specified in Section 5, "Evaluation of Exemptions to EP Regulations," to 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). The outcome of this evaluation, as well as the staff's evaluation of Entergy'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 by Entergy Nuclear Operations, Inc. for Exemptions from Certain Emergency Planning Requirements for the Pilgrim Nuclear Power Station."

Based on its evaluation, the staff concluded that granting the requested exemptions to Entergy 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 highly 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. Although not the basis for the staff's proposal to approve the exemptions, the staff notes that if State or local governmental officials determine that offsite protective actions are warranted, then sufficient time and capability would also be available for offsite response organizations to implement these measures using a comprehensive emergency management plan or "all-hazards" approach.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 December 20, 2018, the staff transmitted to FEMA, by electronic mail, a draft of this SECY paper to provide the opportunity to ask questions, obtain clarification, and comment on the paper before the Commission received it for review.

In a letter dated February 20, 2019 (ADAMS Accession No. ML19057A234), FEMA provided comments on offsite radiological emergency preparedness considerations, which are provided in Enclosure 1 with the staff's perspectives and views on FEMA's comments.

CONCLUSION:

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

¹ A comprehensive emergency management plan or "all-hazards" approach in this context, also referred to as an emergency operations plan, is addressed in 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

The 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 that special circumstances are present.

RECOMMENDATION:

The staff recommends that the Commission approve Entergy's requested exemptions from certain EP 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.

A handwritten signature in dark ink, appearing to read "Margaret M. Doane", is written over a horizontal line.

Margaret M. Doane
Executive Director
for Operations

Enclosures:

1. Historical Perspective and
NRC Staff Evaluation
Considerations
2. Evaluation of Request by
Entergy Nuclear Operations,
Inc. for Exemptions from
Certain Emergency Planning
Requirements for the Pilgrim
Nuclear Power Station

SUBJECT: REQUEST BY ENTERGY NUCLEAR OPERATIONS, INC FOR
EXEMPTIONS FROM CERTAIN EMERGENCY PLANNING
REQUIREMENTS FOR THE PILGRIM NUCLEAR POWER STATION

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ADAMS Accession Nos: ML18347A717 (Package); ML18347A721 (SECY Paper);
ML18347A720 (Enclosure 1); ML18347A719 (Enclosure 2)

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