

July 24, 2017

Jonathan Hoyes, Director  
Technological Hazards Division  
Federal Emergency Management Agency  
Area 8  
400 C Street, South West  
Washington, DC 20024

SUBJECT: PROPOSED COMMISSION PAPER LANGUAGE FOR THE FORT CALHOUN  
STATION EMERGENCY PLAN DECOMMISSIONING EXEMPTION REQUEST

Dear Mr. Hoyes:

In your letter dated June 12, 2017 (Agency-wide Documents Access and Management System (ADAMS) Accession No. ML17164A216), the Federal Emergency Management Agency (FEMA) provided input for the proposed Commission (SECY) paper for the Fort Calhoun Station (FCS) decommissioning emergency planning (EP) exemption request. The U.S. Nuclear Regulatory Commission (NRC) staff will incorporate the requested paragraphs from FEMA's June 12, 2017, letter into the SECY paper (see enclosure), based on subsequent oral communications with FEMA staff.

We noted that the proposed SECY language provided in FEMA's letter was markedly different from the input FEMA provided for recent decommissioning EP exemption requests (i.e., Kewaunee Power Station (SECY-14-0066, ADAMS Accession No. ML14072A257), Crystal River Unit 3 Nuclear Generating Plant (SECY-14-0118, ADAMS Accession No. ML14219A444), Vermont Yankee Nuclear Power Station (SECY-14-0125, ADAMS Accession No. ML14227A711), and the San Onofre Nuclear Generating Station (SECY-14-0144, ADAMS Accession No. ML14251A554)). This departure from past practice prompted this letter to provide the NRC's views of FEMA's changed position, as articulated in your June 12, 2017, letter.

#### State Consultation

In your letter, you summarized FEMA's consultation with the Nebraska Emergency Management Agency and the Iowa Homeland Security and Emergency Management Division concerning the FCS EP exemption request. We are not surprised at the outcome that neither State anticipates any significant reduction in response capabilities due to the FCS decommissioning given the low risk of a nuclear power plant accident (whether operating or decommissioning) in comparison with other risks for which the State and locals must be prepared.

Prior consultation by FEMA with the affected States is not required by NRC regulation in support of the NRC's decision to remove the requirement for formal offsite radiological emergency preparedness (REP) plans for a decommissioning power reactor facility. However, the NRC recognizes FEMA's responsibility to support and coordinate with States under the National Preparedness System (NPS) outside of NRC regulatory requirements. As such, it is our understanding that the purpose of FEMA's consultation with affected states would be to determine

what additional support FEMA could provide under the NPS once FEMA is notified by the NRC that FEMA REP Program services are no longer required.

### Role of State and Local Governments

Your letter stated:

*FEMA acknowledges the NRC's role in analyzing incidents that could result in offsite dose impacts, but FEMA also recognizes the authority of state and local governments to determine risk and the associated capabilities needed to protect their communities. The exemption, if issued, will create a transitional environment for offsite emergency preparedness programs and associated planning for radiological hazards. FEMA will continue to support offsite organizations as they adjust their plans, capabilities, and resources to the changing radiological hazard.*

The NRC has always recognized the authority of State and local governments to determine risk and the associated capabilities needed to protect their communities under the National Preparedness System, outside of the NRC's regulatory process, regardless of the operating status of a nuclear power plant. As such, we support FEMA's continuing efforts to support offsite response organizations (OROs) as they adjust their plans, capabilities, and resources to the changing radiological hazard following the transition from an operating power reactor to a facility that has permanently ceased operation and transferred all irradiated fuel to the spent fuel pool, and subsequently to dry cask storage. In fact, the criteria established in recent decommissioning EP exemptions, and described in the power reactor decommissioning rulemaking draft regulatory basis (ADAMS Accession No. ML17047A413), provides a time period for the controlled relaxation of NRC requirements for formal offsite radiological emergency plans and preparedness to address the "transitional environment for offsite emergency preparedness programs" discussed in your letter.

### Review of Offsite Capabilities

Your letter stated:

*Therefore, upon receipt of the approved exemption to 10 CFR 50.54(q) requirements, FEMA recognizes that NRC assumes the responsibility to review and validate the offsite capabilities as part of the overall onsite emergency preparedness.*

*...there is nothing...that would preclude the NRC from requesting FEMA to provide the NRC with findings concerning appropriate offsite radiological emergency preparedness considerations. FEMA stands ready, consistent with the MOU, to work with NRC in this regard and to ensure that appropriate licensee funds are provided to FEMA to accomplish this effort.*

The NRC will continue to provide oversight, as part of our licensing and periodic inspection activities, of the processes for OROs responding onsite in the event of an emergency, such as fire-fighting, law enforcement and medical transportation/treatment, as identified by licensees in their respective onsite emergency plans, fire protection plans or physical security plans. Documentation of agreement between licensees and these OROs as part of formal letters of agreement, and the offer for these OROs to participate in onsite drills and periodic training conducted by the licensee, will continue to be addressed in the licensee's emergency plan.

Per the "Memorandum of Understanding (MOU) Between the Department of Homeland Security / Federal Emergency Management Agency and Nuclear Regulatory Commission Regarding Radiological Response, Planning and Preparedness," dated December 7, 2015 (ADAMS Accession

No. ML15344A371), FEMA will coordinate the discontinuation of the FEMA REP Program Services when the NRC determines, through an approved exemption from certain requirements in 10 CFR 50.47 and appendix E to Part 50, that FEMA REP Program Services affecting offsite radiological emergency planning and preparedness are no longer required. However, we understand that FEMA would continue to support State and local emergency planning and preparedness efforts, outside the NRC regulatory process, under the National Preparedness System.

#### Commission View on the Required Level of Emergency Preparedness

Your letter stated:

*The Staff's Evaluation of the Licensee Justification for proposed exemption to the requirements of 10 CFR 50.47(b) notes that "NRC requires a level of licensee EP commensurate with the potential consequences to public health and safety" and further establishes the basis of that commensurate level on OPPD's radiological analyses based solely on design basis accidents. In the 1980 post-TMI conclusions of the Commission outlined in the Summary of its proposed rule, 10 CFR 50 (44 FR 75169), the Commission stated, "The proposed rule is predicated on the Commission's considered judgement in the aftermath of the accident of Three Mile Island that **safe siting and design-engineered features alone do not optimize protection for the public health and safety.** Before the accident it was thought that adequate siting in accordance with existing staff guidance coupled with the defense-in-depth approach to design would be the primary public protection. Emergency planning was conceived as a secondary but additional measure to be exercised in the unlikely event that an accident would happen. **The Commission's perspective was severely altered by the unexpected sequence of events that occurred at Three Mile Island.** The accident showed clearly that the protection provided by siting and engineered safety features must be bolstered by the ability to take protective measures during the course of an accident. The accident also showed clearly that on-site conditions and actions, even if they do not cause significant off-site radiological consequences, will affect the way the various State and local entities react to protect the public from dangers, real or imagined, associated with the accident. A conclusion the Commission draws from this is that in carrying out its statutory mandate to protect the public health and safety, the Commission must be in a position to know that off-site governmental plans have been reviewed and found adequate." [Emphasis added]*

First, your letter incorrectly states that Omaha Public Power District's (OPPD) radiological analysis is "based solely on design-basis accidents." While beyond-design-basis events are considered highly unlikely, the NRC required OPPD to perform a maximum cladding temperature analysis for an adiabatic heat-up of a spent fuel assembly, due to the loss of all spent fuel cooling resulting from a beyond-design-basis event (e.g., severe earthquake). Thus, OPPD's radiological analysis is not based solely on design-basis accidents.

Second, your reference to paragraph 50.47(b) to Title 10 of the *Code of Federal Regulations* (10 CFR), specifically reflects Commission views of risk associated with an operating nuclear power reactor for the design of reactors at the time, following the Three Mile Island (TMI) accident. The Commission has and will continue to modify its positions based on research and real world events. As discussed in the Commission papers for recent decommissioning nuclear power reactor sites cited earlier in this letter, the NRC has granted exemptions to EP requirements based on site-specific analyses demonstrating quantified reductions in radiological risk as defined by the Commission. The NRC has determined that the risk of a significant radiological release offsite at a decommissioning nuclear power reactor is much lower than the risk from an operating power reactor. This reduced risk profile is based on the consideration of initiating events associated with normal and abnormal operations, design-basis accidents, and the few beyond-design-basis events

applicable to a decommissioning site. For EP assessments, this is an important distinction relative to operating power reactors, where typically a large number of different sequences contribute to risk.

The NRC looks forward to continuing to work openly and collaboratively with FEMA to ensure the continued health and safety of the public around NRC-licensed facilities. Please do not hesitate to contact me to further discuss our response to your June 12, 2017, letter.

Sincerely,

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Stephanie M. Coffin, Acting Director  
Division of Preparedness and Response  
Office of Nuclear Security and Incident Response

cc: Kathleen Fox, FEMA Acting Deputy Administrator  
for Protection and National Preparedness  
Katherine Fox, FEMA Acting Assistant Administrator  
for National Preparedness  
Timothy Greten, FEMA Deputy Director  
for Technological Hazards Division  
Vanessa Quinn, FEMA Radiological Emergency  
Preparedness Program Branch Chief  
Harry Sherwood, FEMA Professional Services Branch Chief

SUBJECT: Comments Received On Proposed Commission Paper Language for the Fort Calhoun Station Emergency Plan Decommissioning Exemption Request

DATED: July 24, 2017

**DISTRIBUTION:**

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**ADAMS Accession No.: ML17191B322**

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Proposed FEMA Language for FCS EP Exemption Commission Paper

The following paragraphs are excerpts from FEMA's June 12, 2017 letter (ADAMS Accession No. ML17164A216), which at FEMA's request, are being incorporated in the proposed FCS EP Exemption Commission (SECY) Paper:

*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.*

*As Nuclear Power Plants decommission and the nature of the risk changes, it may affect the capabilities that state and local governments need to maintain offsite to protect the health and safety of the public. Given the risk implications both onsite and offsite during decommissioning, it is imperative that FEMA and the NRC consult when acceptable risk is under discussion. FEMA acknowledges the NRC's role in analyzing incidents that could result in offsite dose impacts, but FEMA also recognizes the authority of state and local governments to determine risk and the associated capabilities needed to protect their communities. The exemption, if issued, will create a transitional environment for offsite emergency preparedness programs and associated planning for radiological hazards. FEMA will continue to support offsite organizations as they adjust their plans, capabilities, and resources to the changing radiological hazard. The resources available to support FEMA stakeholders during the transition process include, but are not limited to, the National Preparedness System guidance materials, the Federal Radiological Preparedness Coordinating Committee, and assistance from FEMA Headquarters and Regional Staff.*

*With respect to offsite radiological emergency preparedness considerations, the NRC notes in the enclosure to the SECY paper that the Omaha Public Power District "will still be required to maintain an onsite emergency plan, which would provide for the notification of, and coordination with, offsite organizations, to an extent commensurate with the approved exemptions. Licensee requirements for offsite fire-fighting, emergency medical services and law enforcement responding onsite will continue to be maintained under the licensee's fire protection plan and physical security plan in accordance with 10 CFR 50.48 and 10 CFR 73 respectively." In the enclosure to the SECY paper the NRC staff's evaluation for exempting protective action requirements contained in 10 CFR 50.47(b)(10) states that "Although formal offsite REP planning in accordance with 44 CFR 350 has typically been exempted for decommissioning sites, Offsite Response Organizations (ORO) will continue to be relied upon for firefighting, law enforcement, ambulance and medical services in support of the licensee's (onsite) emergency plan." More specifically, in the justification from exercise requirements contained in 10 CFR Part 50, Appendix E, Section IV.F.2.f, the*

Enclosure

*licensee provides that "No action is expected from State or local government organizations in response to an event at a decommissioning site other than receiving notification of the emergency and firefighting, law enforcement, and ambulance/medical response services. Letters of Agreement will continue to be in place for those services."*

*The NRC indicated that the offsite preparedness capabilities contracted, through letters of agreement, for firefighting, law enforcement, and ambulance/medical response services are part of the licensee's onsite emergency preparedness. In recommending approval of the exemption request, the NRC states that it "would base its finding of reasonable assurance on its review of licensee onsite emergency preparedness and would not require a finding from FEMA on the adequacy of State and local CEMPs [comprehensive emergency management plans]." Therefore, upon receipt of the approved exemption to 10 CFR 50.54(q) requirements, FEMA recognizes that NRC assumes the responsibility to review and validate the offsite capabilities as part of the overall onsite emergency preparedness.*