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To: [CAMERON, COREY A \(ccameron@oppd.com\)](mailto:ccameron@oppd.com)
Cc: [BLOME, BRADLEY H](#); [norris, michael](#)
Subject: Request for Additional Information, OPPD Fort Calhoun License Amendment for ISFSI-only EP and EAL Scheme
Date: Wednesday, August 21, 2019 11:00:00 AM

Dear Mr. Cameron:

By application dated February 28, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19064A758), Omaha Public Power District requested changes to the Fort Calhoun Station (FCS) Permanently Defueled Emergency Plan (PDEP) pursuant to 10 CFR 50.54(q). The proposed changes replace the FCS PDEP and associated Emergency Action Level (EAL) Technical Bases Document with the Independent Spent Fuel Storage Installation Only Emergency Plan (IOEP) and associated EAL scheme.

The NRC staff has reviewed the licensee's application and determined that additional information is needed to enable the NRC staff to complete its technical review.

FCS RAI-1

Section 3.1, "Elimination of SFP [spent fuel pool] Initiation Conditions and EALS and Alert Classification," of Enclosure 1, "Description of Proposed Changes, Technical and Regulatory Evaluation, Significant Hazards Determination, and Environmental Consideration," states, in part (page 6):

Even though a Hostile Action-Based program is not necessary for an ISFSI-only site, precedence from other utilities and regulatory guidance provides that consideration of actions by an adversary for EAL purposes is still applicable. Therefore, the use of the term "ADVERSARIAL ACTION" and the revised definition is included, to reflect those aspects associated with an ISFSI-only site and is utilized in the EALs.

The term "adversarial action" is not consistent with U.S. Nuclear Regulatory Commission (NRC) EAL guidance, nor is it consistent with industry precedence. Please provide further technical justification for inconsistency NRC EAL guidance and industry precedence or revise to reflect the term "HOSTILE ACTION."

FCS RAI-2

Section 3.1 of Enclosure 1, (page 6) states, in part:

Judgement EALs are being eliminated as part of this submittal to align with Draft Regulatory Guide 1346. The draft does not include the Judgement EALs as part of the IOEP scheme.

Draft Regulatory Guide 1346 was made publicly available for stakeholder awareness concurrent with the Commission's review of SECY-18-0055, "Proposed Rule: Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning" (ADAMS Accession No. ML18012A019). As such, reference to this draft regulatory guide to justify changes to an EAL scheme is not justified, since guidance may be revised as part of overall rulemaking.

Please provide further technical justification, other than referencing Draft Regulatory Guide 1346, for inconsistency with existing NRC-endorsed EAL guidance and industry precedence or revise to include EAL declarations based on Emergency Director judgement.

FCS RAI-3

Section 3.1 of Enclosure 1 (page 7) states, in part:

FCS is proposing to base this EAL on a change in radiation levels significant enough to warrant concern for exceeding the limit to dose to the general public as defined in 10 CFR 20.1301(a)(2) of 0.002 Rem (2 mRem) in any one hour. Establishing an EAL threshold of >2 mRem/hr within the ISFSI protected area or on a Horizontal Storage Module (HSM) concrete surface provides a level of margin to maintain protection of the public, while providing an easily identifiable set point for ISFSI personnel. This level of radiation is high enough to minimize instrument error and operational differences while still providing positive indication of an emergency condition.

The current NRC-endorsed EAL scheme indicates that two times (2X) the technical specification limit has dose rates of:

≥ 1600 mRem/hr on HSM front surface and ≥ 400 mRem/hour on the HSM door centerline.

Based on these limits, it would appear to the staff that the proposed EAL of 2 mRem/hour on a HSM concrete surface would be exceeded normally. Please provide a technical justification for the use of a radiation reading of >2 mRem/hr (gamma) within the ISFSI Protected Area or on a HSM concrete surface.

FCS RAI-4

Section 3.4, "Removal of requirement to conduct accountability following declaration of an emergency," of Enclosure 1 states, in part:

The proposed IOEP for FCS does not contain an emergency classification higher than ALERT, and considering the factors specified previously, the requirement to conduct accountability following an emergency declaration is no longer warranted.

Paragraph 50.47(b)(10) of 10 CFR, as exempted for FCS, states:

A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

As such, licensee is still required to establish a range of protective actions for emergency workers and the public onsite. The exemptions to emergency planning (EP) requirements approved for a permanently defueled emergency plan where intended to align with the EP requirements for an ISFSI in 10 CFR 72.32.

Spent Fuel Project Office Interim Staff Guidance (ISG) – 16, "Emergency Planning," (ADAMS Accession No. ML003724570) provides guidance related to the requirements for an ISFSI emergency plan and its contents as delineated in 10 CFR 72.32. Section 3.6.2, "Onsite Protective Actions," in ISG-16 states that the emergency plan should include methods for onsite personnel evacuation and

accountability.

Please provide further justification for deviating for NRC guidance based on the requirements of 10 CFR 50.47(b)(10), as exempted, or revise to restore personnel accountability.

FCS RAI-5

Section 3.5, "Removal of emergency notification to the State of Iowa," of Enclosure 1, "Removal of emergency notification to the State of Iowa," states, in part:

The State of Iowa Department of Homeland Security formally requested to be removed from any emergency notifications associated with FCS.

Please provide documentation from the State of Iowa supporting this request.

The information requested above is needed to complete the review.

You may contact me at (301) 415-6634 or by email if you have any questions.

Sincerely,

Jack D. Parrott
Senior Project Manager
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

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