

NRR-PMDAPem Resource

From: Kim, James
Sent: Thursday, February 02, 2017 1:05 PM
To: MATZKE, ERICK P; ccameron@oppd.com
Cc: Norris, Michael
Subject: Fort Calhoun Station - Final Request for Additional Information Concerning Post-Shutdown EPlan Amendment (CAC MF8326)
Attachments: Fort Calhoun Post-Shutdown EPlan RAIs (Draft).docx

Final Request for Additional Information

On February 1, 2017, the U.S. Nuclear Regulatory Commission (NRC) staff sent Fort Calhoun Station (FCS) the draft Request for Additional Information (RAI) provided below. This RAI relates to a license amendment request (LAR) to revise the FCS Emergency Response Organization (ERO) on-shift and augmented staffing based on the permanently shutdown and defueled condition of the facility, under existing regulatory requirements of 10 CFR 50.47 and Appendix E to 10 CFR Part 50.

On February 2, 2017, a teleconference between FCS and NRC staff was held to discuss the information requested by the NRC staff was understood and any additional clarifications on the RAI were required. FCS determined that the information requested by the NRC staff was understood and no additional clarifications on the RAI was necessary. FCS agreed to provide a response to this **final** RAI within 30 days from the date of this correspondence. The NRC staff also informed the licensee that a publicly available version of this final RAI would be placed in the NRC's Agencywide Documents Access and Management System.

By letter dated September 2, 2016, Omaha Public Power District (OPPD), requested prior NRC approval of an amendment to the Fort Calhoun Station (FCS) Radiological Emergency Response Plan (RERP) in support of OPPD's intent to permanently cease power operations at FCS no later than December 31, 2016. The proposed amendment would revise the FCS Emergency Response Organization (ERO) on-shift and augmented staffing based on the permanently shutdown and defueled condition of the facility, under existing regulatory requirements of 10 CFR 50.47 and Appendix E to 10 CFR Part 50.

The enclosed "draft" requests for additional information (RAI) are necessary to facilitate NRC's technical review and are being provided at this time to support the scheduled conference call with OPPD.

REQUESTS FOR ADDITIONAL INFORMATION

REGARDING ADMENDMENT REQUEST FOR EMERGENCY PLAN CHANGE

OMAHA PUBLIC POWER DISTRICT

FORT CALHOUN STATION

DOCKET NO. 50-285

By letter dated September 2, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16246A321), Omaha Public Power District (OPPD, the licensee), requested prior U.S. Nuclear Regulatory Commission (NRC) approval of an amendment to the Fort Calhoun Station (FCS) Radiological Emergency Response Plan (RERP) in support of OPPD's intent to permanently cease power

operations at FCS no later than December 31, 2016. The proposed amendment to the FCS RERP would revise the FCS Emergency Response Organization (ERO) on-shift and augmented staffing, based on NRC approval, based on the certifications for permanent cessation of power operations and permanent removal of fuel from the reactor vessel to the NRC in accordance with §50.82(a)(1)(i) and (ii) to Title 10 of the *Code of Federal Regulations* (10 CFR), which will no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel.

The standards in §50.47 to Title 10 of the Code of Federal Regulations (10 CFR 50.47), “Emergency plans,” and the requirements of Appendix E to 10 CFR Part 50, “Emergency Planning and Preparedness for Production and Utilization and Production Facilities,” on which the staff based its review, are as follows:

- 10 CFR 50.47(b)(1), states, in part: “... each principal response organization has staff to respond and to augment its initial response on a continuous basis;”
- 10 CFR 50.47(b)(2) states, in part: “... adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available ...;”
- 10 CFR Part 50, Appendix E, Section IV.A, states, in part: “The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee’s emergency organization...;” and
- 10 CFR Part 50, Appendix E, Section IV.C.1, states, in part: “The emergency classes defined shall include (1) Notification of unusual events, (2) alert, (3) site area emergency, and (4) general emergency.

The evaluation criteria, as applicable based on the permanently shutdown and defueled condition of the facility, contained in Section II.B (Onsite Emergency Organization) of NUREG-0654/FEMA-REP-1, Revision 1, “Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Nuclear Power Plants,” were used in evaluating proposed ERO staffing changes. The staff’s technical review also takes into consideration that prior to the Commission’s approval of requested exemptions to the standards in 10 CFR 50.47 and the requirements of Appendix E to 10 CFR Part 50, the proposed FCS RERP must continue to provide adequate on-shift and augmented ERO staffing to effectively respond to a radiological release escalating to a General Emergency classification and requiring consideration of offsite protective actions by State and local officials.

The requests for additional information (RAI) listed below are necessary to facilitate the technical review being conducted by the Office of Nuclear Security and Incident Response/ Division of Preparedness and Response, Reactor Licensing Branch (NSIR/DPR/RLB). A timely and thorough response to these draft RAIs is requested in order to meet the proposed deadline requested by the licensee.

RAI-FCS-1

Page 19 of Attachment 1, “Description and Evaluation of the Proposed Changes,” identifies only one Radiation Protection (RP) Technician in the Operational Support Center (OSC) for elimination. However, pages 27 and 28 of Attachment 2, “Tabular Summary of Proposed Changes to the FCS RERP,” identifies the following:

Before (Rev.1)	After (Pending Revision Number)	Reason for Change
2 RP Technicians	Deleted	These positions have no defined tasks in procedures. All offsite survey tasks are currently performed by the Field Team Technicians, which are maintained.

2 RP Technicians	1 RP Technician	The spectrum of credible accidents and operational events, and the quantity and complexity of activities required for the safe storage of spent nuclear fuel is reduced as compared to an operating plant. The duties and coverage required for the position is reduced.
2 RP Technicians	1 RP Technician	The spectrum of credible accidents and operational events, and the quantity and complexity of activities required for the safe storage of spent nuclear fuel is reduced as compared to an operating plant. The duties and coverage required for the position is reduced.

- a) With respect to the proposed 2 RP Technicians being deleted above, what tasks do these RP Technicians actually perform in the current RERP and how would they be utilized for an event classified as a General Emergency with a radiological release requiring an offsite protective action recommendation (PAR) to be issued? Please provide further justification for their elimination based on their current tasks.
- b) FCS is proposing to reduce the number of augmenting RP Technicians from six to two within 60 minutes. Please provide further justification that the proposed two augmenting RP Technicians can perform all required tasks for a radiological release escalating to a General Emergency classification and requiring consideration of offsite protective actions by State and local officials.

RAI-FCS-2

Page 23 of Attachment 1 states, "Attachment 5 [Emergency Response Organization Task Analysis] contains an analysis of all ERO positions being eliminated and evaluates the transfer of tasks to remaining ERO positions following permanent cessation of power operations." Please describe by what process this was validated and documented for the staffing proposed in the Emergency Operations Facility (EOF), Technical Support Center (TSC), OSC and Joint Information Center (JIC).

RAI-FCS-3

During the staff's review, the inconsistencies below were identified in the submittal. Please revise accordingly to accurately resolve or provide further justification for apparent misalignment.

- a. Page 9 of Attachment 1 states, "The proposed changes to the FCS RERP will **also eliminate the following minimum staffing positions** for activation of ERF's currently identified in...the FCS ERP: OSC Radiation Coordinator..." However, Page 19 of Attachment 1 states, "The proposed staffing changes **do not eliminate any ERO positions** in the OSC described in FCS EIPs as **minimum staff positions**."
- b. Page 19 of Attachment 1 states, "Following permanent cessation of power operations, the following OSC positions are proposed for elimination: **one RP Technician, RP Coordinator**, Maintenance Coordinator, Chemistry Coordinator, Medical Response Coordinator, OSC Operations Liaison, Dosimetry Technician, ERMS Operator, Radio Operator, Storekeeper, and Accountability Clerk." However, Page 22 of Attachment 1 states, "Therefore, **the RP Coordinator**, Maintenance Coordinator, Chemistry Coordinator, Medical Response Coordinator, OSC Operations Liaison, Dosimetry Technician, ERMS Operator, Radio Operator, Storekeeper, and Accountability Clerk positions can be eliminated without placing an undue burden on the remaining ERO positions in the OSC and without increasing the risk to public health and safety."

- c. Page 29 of Attachment 1 provides an evaluation for the elimination of the on-shift Chemistry Technician and the on-shift Habitability Technician. However, there is no evaluation for, nor identification of, the proposed change to the current staffing requirement for the four RP Technicians augmenting within 60 minutes under the Major Task area of *Offsite Dose Assessment; Onsite and In-plant surveys; Offsite surveys; Chemistry/Radiochemistry*.
- d. Section 4.2.7, "Major Tasks: Protective Actions (Plant)," on page 31 of Attachment 1, includes the following sentence that appears to be out of place, "[t]he fire brigade will continue to perform the tasks of search and rescue, first aid, and firefighting in the permanently shut down and defueled condition." It appears to be more appropriate information to be included in Section 4.2.8.1, "Major Tasks: Combat Fires."
- e. In Section 4.2.7.1, "Major Tasks: Radiation Protection Access Control," on page 31 of Attachment 1, the evaluation does not include a Current Staffing Requirement nor proposed staffing, as was done for the other Major Tasks in Attachment 1. Additionally, this section does not provide any conclusion for this Major Task that supports the proposed changes to the FCS RERP.
- f. Section 4.2.8.1, "Major Tasks: Combat Fires," on page 33 of Attachment 1, includes the following sentence that appears to be out of place, "[t]he analysis of proposed post-shutdown on-shift staffing concluded that during an event requiring a Control Room evacuation in a permanently defueled condition, the Shift Manager and CRO (or NCO) can perform all required FCS RERP actions in a timely manner. There are no collateral duties that would prevent the timely performance of emergency plan functions." It appears to be more appropriate information to be included in Section 4.3, "Conclusion."
- g. Attachment 2, page 20, states, "[t]he on-call technician positions will not exist in the post-shutdown ERO. Technicians will be called in on an as needed basis." This appears to contradict Table B-1 (in Attachment 3, page 26 – clean copy of OPPD Nuclear Post-Shutdown RERP for FCS), where the Electrical Maintenance Technician is referenced as a 60 minute augmenting responder.
- h. Attachment 2, page 21, states, "[t]he augmenting Radiation Protection Technician positions will be reduced from five to three in the post-shutdown ERO." This appears to contradict Table B-1, "OPPD Emergency Response Organization (ERO) Functions and Shift Staff Augmentation Plan" (in Attachment 3, "Proposed Revision to the FCS RERP," on page 30 of 170), which provides two RP Technicians augmenting in 60 minutes.
- i. Attachment 4, "Analysis of Proposed Post-Shutdown On-Shift Staffing," page 20, states, "[a]dditional plant personnel, including Operations, Chemistry, and RP Technician, would be on-site during fuel assembly movement. The presence of additional plant personnel would free the on-shift RP Technician to perform dose assessment." This is not consistent with the assumptions made for the on-shift staffing analysis in recent precedence for a radiological release escalating to a General Emergency classification and requiring consideration of offsite protective actions by State and local officials, where credit was not given for the additional personnel supporting initial response actions. (Refer to: ADAMS Accession No. ML14085A257, "Proposed Changes to the Vermont Yankee Emergency Plan Vermont Yankee Nuclear Power Station" and ADAMS Accession No. ML16043A424, "License Amendment Request to Revise the James A. FitzPatrick Emergency Plan to Address the Permanently Defueled Condition").

Regards,

Jim Kim

Project Manager – Fort Calhoun Station
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REQUESTS FOR ADDITIONAL INFORMATION

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