

## Anderson, Joseph

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**Subject:** FW: Response to FEMA Questions RE Proposed Changes to DAEC Emergency Plan  
**Attachments:** (FEMA letter 7-29-19) Review Requested of Revision to the DAEC Emergency Plans.pdf; DAEC Response to RAIs Relating to Proposed Changes to Emergency Plan for Permanently Defueled Condition (ML19301A529).pdf; DAEC Supplement to Response to RAIs Relating to Proposed Changes to the Emergency Plan for Permanently Defueled Condition (ML19343A225).pdf

**From:** Anderson, Joseph

**Sent:** Wednesday, December 11, 2019 12:03 PM

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**Subject:** Response to FEMA Questions RE Proposed Changes to DAEC Emergency Plan

Vanessa / Tim –

By letter dated April 30, 2019 (ADAMS Accession No. ML19116A146), the NRC requested the Federal Emergency Management Agency (FEMA) to review the proposed license emergency response organization (ERO) staffing changes for the Duane Arnold Energy Center (DAEC) against the current FEMA approved state and local Radiological Emergency Preparedness Plans. The proposed changes to the DAEC Emergency Plan would eliminate specific on-shift and augmented ERO positions, under existing regulatory requirements (pre-exemption), based on written certification to the U.S. Nuclear Regulatory Commission (NRC) under 10 CFR 50.82(a)(l) of the permanent cessation of reactor operation and transfer of spent fuel from the reactor vessel.

By letter dated July 29, 2019 (ADAMS Accession No. ML19213A323, attached), FEMA requested additional information on a number of questions based on FEMA Headquarters' and Region VII's review of the proposed ERO changes to the DAEC Emergency Plan. This letter was followed by a conference call on August 1, 2019, amongst NRC and FEMA Headquarters and Regional staff to gain a better understanding of FEMA's issues with the proposed ERO changes. Subsequent to the joint FEMA/NRC conference call, the NRC submitted requests for additional information (RAIs) to NextEra Duane Arnold (NEDA) in a letter dated October 4, 2019 (ADAMS Accession No. ML19280A035). Below are the NRC staff's responses to the questions posed by FEMA Region VII based on my staff's evaluation and RAI responses from the licensee in their letter dated October 28, 2019 (ADAMS Accession No. ML19301A529, see attached).

Additionally, in RAI-DAEC-5 to the NRC's letter dated October 4, 2019, the licensee was requested to provide documentation (letter, email, etc.) that reflects the offsite response organization's (ORO's) agreement with the licensee's assessment that the proposed changes would not impact existing FEMA-approved emergency plans. In the NEDA's response to RAI-DAEC-5, an acknowledgement of the opportunity to review proposed changes to the NextEra Energy DAEC Emergency Plant in support of NRC license amendment request (LAR) was provided as Attachment 1 to NEDA's letter dated October 28, 2019. The acknowledgement is signed by the Emergency Management Coordinators for Benton and Linn Counties, and the Department of Homeland Security and Emergency Management and Department of Public Safety for the State of Iowa, and states: "The Partners find that the proposed changes will not conflict or negatively impact State and County Radiological Emergency Preparedness Plans and Procedures and supports DAEC submission of the LAR being submitted to the NRC."

Please contact myself or Rick Kinard if you have any further questions needed to determine that proposed licensee ERO changes would have no adverse impacts that would preclude the effective implementation of state and local Radiological Emergency Preparedness (REP) Plans or impact FEMA's finding of reasonable assurance for DAEC. **In order to support time line for the completion of this licensing action, I request FEMA's response by no later than January 8, 2020.**

As always, thank you for your assistance.

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1. Section 2.3 Description of Proposed Changes (p. 4): The last paragraph references two other requests NEDA has or will submit to NRC regarding the position titles “Certified Fuel Handler” and “Non-Certified Operator”, which are key positions in the proposed post-shutdown on-shift staff. The following page notes that “specific training requirements of the NCO [Non-Certified Operator] position will be developed... with an emphasis on systems and processes important to maintaining SFP cooling... {and} applicable aspects of the DAEC Emergency Plan related NCO duties.”. This doesn’t give a very good picture of what the NCO will be responsible to do in relation to interfacing with OROs, or what training related to offsite preparedness and response they will receive. The NCOs seem to be taking on several other responsibilities (current Control Room Operators and Auxiliary Operators), so it is unclear if there has been an assessment of their ability to perform the additional duties related to offsite notification and coordination, or what those additional duties would be.

Response: The NRC staff has reviewed the licensee’s response to RAI-DAEC-1 provided in NEDA’s letter to the NRC dated October 28, 2019, and determined based on the on-shift staffing analysis performed by NEDA, and summarized in their RAI response, that there is no impact on the on-shift communicator’s ability to perform notification to the State of Iowa or local agencies, and the NRC within 15 minutes and one hour, respectively, following the declaration of an emergency classification.

2. Section 3.2.1.3 Major Functional Area: Notification/Communications (p. 10): The proposal is for the current Shift Communicator position be replaced by an on-shift NCO for notification of OROs. There are 2 sentences in this section that refer to notification of offsite authorities within 15 minutes. The rest of the section focuses on notification and communications with NRC. It isn’t clear if their analysis of the NCO duties included communications with OROs or just NRC. The document refers several times to their ‘analysis of proposed post-shutdown on-shift staffing’, but the analysis results, methodology, etc. are not provided.

Response: See response to question 1 above. Section IV.A.9 to Appendix E of 10 CFR Part 50 requires that a nuclear power reactor licensee perform a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan. This analysis is performed using the NRC-endorsed guidance provided in NEI 10-05, “Assessment of On-Shift Emergency Response Organization Staffing and Capabilities” (ADAMS Accession No. ML111751698). NEDA’s response to RAI-DAEC-1 in their letter dated October 28, 2019, summarizes the results of this analysis under the notification/communications function for the accident scenarios specified in NEI 10-05. A licensee is not required to submit the detailed on-shift staffing analysis to the NRC, rather, this analysis must be available for review by the NRC regional inspectors as part of the periodic inspection process.

3. Section 3.2.2 ERO Staffing, Table 1 (p. 20-21): All EOF and JIC positions are retained in the proposed post-shutdown ERO staffing, so on the surface it seems our primary concern would be the reduced on-shift staffing.

Response: Comment noted. NEDA’s response to RAI-DAEC-7 provided in their letter dated October 28, 2019, states that “DAEC will conduct a drill to validate the proposed changes in preparation for implementation of the shutdown and permanently defueled Emergency Plan, in accordance with the EP

drill program. The NRC and FEMA will be provided appropriate advance notice to allow them the opportunity to observe.” In NEDA’s letter dated December 9, 2019 (ADAMS Accession No. ML19343A225, attached), this commitment was supplemented to state, in part: “...advance notification of the drill date to the OROs with an offer to participate.” NRC staff observing the drill will use this opportunity to verify that required emergency plan functions can be performed in a timely and effective manner based on the proposed reduction in on-shift staffing.

4. DAEC Emergency Plan, Assignment of Responsibilities (p. 39): subparagraph € Public Health and Protective Response – notes that the Operations Shift Manager, acting as the Emergency Coordinator, is responsible for contact and coordination with public officials. This responsibility transitions to the Emergency Coordinator (assisted by the Site Radiation Protection coordinator), then when the EOF is activated it transitions to the Radiological and EOF Manager. There is no reference to a “Non-Certified Operator” in this (or other ORO-related) sections of the DAEC Emergency Plan.

Response: This section of the DAEC Emergency Plan lists the personnel assigned the responsibility to ensure that each function is performed. The NCO will perform the communications function on-shift until relieved, as reflected in the licensee’s on-shift staffing analysis summary (RAI-DAEC-1). The Operations Shift Manager, acting as the Emergency Coordinator, has responsibility to ensure that this function is performed on-shift.

5. DAEC Emergency Plan, Emergency Response Organization (p. 73): Major Functional Area “Notification/Communications” does not list an NCO with this responsibility in the on-shift staffing. It includes an NRC ENS Communicator in the Tech Support Center, but it is not clear if that position would also interface with OROs.

Response: Refer to NRC response to Question 1 and 2 above. Based on our review of the proposed DAEC Emergency Plan changes and NEDA’s RAI responses, NRC staff believes that this is adequately addressed and the licensee’s ability to perform the notification/communication function on-shift will be verified during the proposed pre-implementation drill.