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**To:** [HANSHER, BILL R](#)  
**Cc:** [LIPPY, DONNA L](#); [EDWARDS, MICHAEL L](#)  
**Subject:** DRAFT RAIs Re: Fort Calhoun LAR to Revise TS 2.15 (ME8038)  
**Date:** Friday, July 13, 2012 5:25:00 PM  
**Attachments:** [ME8038 RAIs Email.docx](#)

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Bill,,

By letter dated February 10, 2012 (ADAMS Accession No. ML12046A838), Omaha Public Power District (OPPD), the licensee for Fort Calhoun Station (FCS) submitted a license amendment request to revise the technical specifications for FCS. The proposed amendment would establish the limiting condition for operation) requirements for the reactor protective system actuation circuits in Technical Specification 2.15, "Instrumentation and Control Systems."

The NRC staff has reviewed your submittal and has determined that the information specified in the attached Request for Additional Information (RAI) is needed for the staff to complete its evaluation.

Please contact me if a clarifying teleconference is needed for the attached RAIs.

Thanks  
Lynnea

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REQUEST FOR ADDITIONAL INFORMATION  
LICENSE AMENDMENT REQUEST FOR FORT CALHOUN STATION TO ESTABLISH THE  
REACTOR PROTECTIVE SYSTEM ACTUATION CIRCUITS LIMITING CONDITION FOR  
OPERATION (TAC ME8038)

By letter dated February 10, 2012 (ADAMS Accession No. ML12046A838), Fort Calhoun Station (FCS) is submitting a request for an amendment to the Renewed Facility Operating License No. FCS, Unit No. 1. The proposed amendment would establish the limiting condition for operation requirements for the reactor protective system actuation circuits in Technical Specification 2.15.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the information provided by the licensee and has determined that the following information is needed in order to complete its review.

1. Please provide technical information and manufacturer data for the Reactor Protective System (RPS) M2 contactor.
2. The current Technical Specification (TS) for Fort Calhoun Station identifies the following operating modes
  - a) Power Operation Condition (Mode 1)
  - b) Hot Standby Condition (Mode 2)
  - c) Hot Shutdown Condition (Mode 3)
  - d) Cold Shutdown (Mode 4)
  - e) Refueling Shutdown (Mode 5)

To support the NRC staff review, please respond to the following questions:

- a) The Standard Technical Specifications (STS), Combustion Engineering Plants, NUREG-1432 include an operating mode for Startup (Mode 2), which it is not included in the FCS TS. Furthermore, the Startup mode is identified in the STS Applicability for Limiting Condition for Operation (LCO) 3.3.3, RPS Logic and Trip Initiation (Analog). Please explain how the FCS operating mode line up with the STS operating mode, and their applicability for the RPS LCO.
- b) License Amendment Request (LAR), Enclosure 2, Section 3, "Applicability," describes the applicability for when the RPS logic and trip initiation channels are required to be operable. This section does not clearly identify the FCS operating modes applicable for the proposed TS. Please identify the FCS operating modes when the proposed LCO 2.15.2 is applicable.
3. As discussed above in item 2.b, the description provided in LAR, Enclosure 2, Section 3, "Applicability," does not clearly identify the operating modes applicable for the proposed TS. LCO 2.15.2 identifies that it is applicable for Modes 1 and 2; and when reactor coolant temperature (Tcold) is greater than 210°F or MODE 4 with more than one control element assemblies (CEAs) rod capable of being withdrawn and RCS boron concentration less than REFUELING BORON CONCENTRATION.

- a) Please clarify the operating modes applicable for LCO 2.15.2 using the definitions provided in FCS TS.
  - b) One of the applicable modes identified in the proposed LCO 2.15.2 is “when reactor coolant temperature (Tcold) is greater than 210°F.” Please explain if this description corresponds to FCS operating Mode 3.
  - c) NUREG-1432, STS, identifies the applicability for LCO 3.3.3 to be STS operating modes 1 and 2; or modes 3, 4, and 5 with any reactor trip circuit breakers closed and any control element assemblies capable of being withdrawn. It is not clear how the operating modes for the proposed LCO 2.15.2 align with this description. Please clarify.
4. LAR, Enclosure, Section 2.0, states that the RPS manual trip functional unit included in Table 2-2, Instrument Operating Requirements for Reactor Protective System, will be removed, and that this function will be included into the proposed LCO 2.15.2. The LAR Enclosure Section 3.0, Technical Evaluation, does not state that the manual function would be moved to the new LCO 2.15.2, instead this section states that requiring restoration of the inoperable channel is consistent with the current TS requirement contained in TS table 2-2, item 1. Please clarify.
  5. Current TS requirement in LCO 2.15 (2) states that if a channel of a particular system (Table 2-2) is inoperable, this channel must be placed in the tripped position. Further if the inoperable channel has not been restored to operable status after 48 hours, the reactor should be placed in a hot shutdown condition (mode 3) within the following 12 hr. based on this information it is not clear why the proposed LCO 2.15.2 (3) is requiring that with one inoperable RPS manual trip channel to restore the status to OPERABLE prior to entering MODE 2 from MODE 3. Please clarify.
  6. The LAR Enclosure 2, Section 3.0, Technical Evaluation, states that the current TS 2.15(5), Alternate Shutdown and Auxiliary Feedwater Panel 2.15.3 will be incorporated into a new LCO 2.15.3 with the list of components being included into a new Table 2-6. Further Section 3 states that no changes are proposed for the requirements, other than formatting. However, the link between the required actions in TS 2.15.3 is not clear. Please clarify the relationship between required actions 1 and 2 in the proposed TS 2.1.5.3.