

**From:** Vaidya, Bhalchandra  
**Sent:** Monday, February 27, 2012 7:52 AM  
**To:** 'Dorman, Eugene'; 'Pechacek, Joseph'; 'O'Farrill, Jorge'  
**Cc:** Wilson, George; Goel, Vijay; Andersen, James; Basturescu, Sergiu  
**Subject:** Fitz, LAR, ME6877, Request for Additional Information (RAIs) to Licensee

**SUBJECT:** James A. FitzPatrick Nuclear Power Plant (JAFNPP) – ACCEPTANCE OF REQUESTED LICENSING ACTION RE:  
License Amendment Request to change the Current licensing Basis, Authorizing Use of On Load Tap Changers for Reserve Station Service Transformer (TAC NO. ME6877)

By letter dated August 16, 2011, Energy Nuclear Operations, Inc., the licensee, submitted the License Amendment Request (LAR) to change the Current licensing Basis, Authorizing Use of On Load Tap Changers for Reserve Station Service Transformer.

The NRC staff is reviewing the application. However, the NRC staff requires the following additional information to complete its review of the license amendment request:

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**REQUEST FOR ADDITIONAL INFORMATION**  
**JAMES A. FITZPATRICK NUCLEAR POWER PLANT**  
**TAC No. ME6877**

1. Provide revised Figures 8.2-1 and 8.5-1 of Updated Final safety Analysis Report and any others, in which the new ratings of RSSTs are shown.
2. In the LAR, Attachment 1, Page Nos. 5 and 6, the following is stated: “The normal power source for the primary and backup digital OLTC Beckwith microcontrollers is from a potential transformer that is located between the RSST secondary windings and the 4kV [kilo-Volt] RSST bus supply breakers.”  
  
Provide a copy of the diagram which shows the connection of the potential transformer that is located between the RSST secondary windings and the 4kV RSST bus supply breakers. Also, identify which 4kV buses are monitored and controlled by the OLTC, and which 4kV buses are shown in Figures 1 and 2 of the LAR.
3. In the LAR, Attachment 1, Page No. 6, the following is stated: “The primary microcontroller is set with a time delay during operation; this setting is needed to inhibit the tap changer from unnecessary operations on temporary voltage excursions.”  
  
Provide the above time delay setting associated with the primary microcontroller, and confirm whether the above time delay is bypassed in case of a design basis accident signal.
4. In the LAR, Attachment 1, Page Nos. 6 and 7, the following is stated: “By providing automatic adjustment of the voltage to the auxiliary power system from the offsite 115kV system, the RSST OLTCs will compensate for a wide range of 115kV (110kV – 121kV) system operating voltages.” “To prevent unnecessary disconnection of the safety-related buses from offsite power, analyses have determined the minimum permissible pre LOCA [loss-of-coolant accident] contingency voltage that can occur following generator trip without actuating the DVR [degraded voltage relay] scheme.”  
  
Provide the basis for considering the above voltage range for the 115kV system. What is the current minimum permissible pre LOCA 115kV contingency voltage that can occur following a generator trip without actuating the DVR scheme, prior to the proposed amendment?

5. In order to find the voltage improvements due to the OLTC, please provide the voltage profiles for the 4kV major load buses in the following scenarios:
- (a) Accident load sequencing with the 115kV switchyard voltage at the minimum voltage level, without OLTC (prior to proposed amendment).
  - (b) Same as (a) but with new RSST and OLTC in normal operation.
  - (c) Non-Accident load sequencing due to spurious sudden trip of the main generator, with the 115kV switchyard voltage at the minimum voltage level, loads fast transfer to RSST (prior to proposed amendment).
  - (d) Same as (c) but with new RSST and OLTC in normal operation.
6. Provide a discussion of the power and control voltage sources for operation of the OLTC, and primary and backup microcontrollers. Also, confirm the location of primary and backup microcontrollers, and the locations where an Operator can locally and remotely control the OLTCs, if needed.
7. In the LAR, Attachment 1, Page No. 9, the following is stated: "The 4400V used in Figure 1 is 110% of the voltage rating of the safety-related motors fed from the bus, consistent with ANSI/NEMA Standard MG-1-2009, Revision 1-2010, "Motors and Generators."

The staff finds that in Figure 1, the nominal voltage shown in Figure 1 is 4441.5V instead of 4400V. Please provide an explanation for this discrepancy.

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Please contact me immediately, to schedule a tele-conference, preferably, today -or-tomorrow, with your staff and the NRC staff to ensure that the licensee clearly understands the NRC staff concerns.

The licensee submission that provides complete responses to the RAIs, is needed by March 27, 2012, in order to support the timely completion of this licensing action.

Please contact me, if you have any questions.

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