From: Paige, Jason
Sent: Friday, March 19, 2010 11:19 AM
To: Tomonto, Bob
Subject: Acceptance Review RE TP3 SFP Criticality Analysis Taking Credit for Boraflex (ME3443 and ME3444)

Bob,

The NRC staff has reviewed the Spent Fuel Pool Criticality Analysis Taking Credit for Boraflex license amendment request and concludes that it does not provide sufficient technical information to enable the NRC staff to proceed with its detailed technical review. The NRC staff found exceptions with both the Boraflex Remedy analysis referenced in the application and the comparative analysis submitted with the application. For the reasons stated below, the NRC staff recommends that the subject application be processed as "unacceptable for review without opportunity to supplement," in accordance with LIC-109.

1) MCNP4a code bias and bias uncertainty used in the maximum keff calculations are non-conservative. Using the recently corrected numbers indicates that the unborated keff will exceed 1.0, violating the requirements of 10 CFR 50.68. Therefore, the analysis used to support TP Amendment 234 no longer provides reasonable assurance that TP U3 complies with 10 CFR 50.68.

2) Depletion uncertainty was not used for the unborated cases (Ref: Tables 4.6.4 and 4.6.5 in Holtec Report, HI-2043149). Proper use of a depletion uncertainty in the unborated cases exacerbates the condition described in item number 1.

3) The core-exit temperature used during the depletion simulations was 611.3°F, which was identified as the maximum average core-exit temperature. This is not the maximum core-exit temperature. According to Table 3.2.2-1 of the TP UFSAR the maximum core-exit temperature is approximately 643°F. This temperature difference is worth approximately 0.01 Δkeff.

As I stated earlier, we can proceed with setting up a teleconference to discuss in more detail. Looking at the staff's availability, the tech staff is available on Tuesday, March 23, 2010 at 10am or anytime after 3pm.

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