

From: Poole, Justin
Sent: Friday, September 11, 2009 9:26 AM
To: COSTEDIO, JAMES
Cc: 'Flentje, Fritzie'
Subject: Draft RAI from Reactor Systems Branch on Spent Fuel Pool License Amendment Request 247

Jim,

By letter dated July 24, 2008, FPL Energy submitted a license amendment application for Point Beach Nuclear Plant Units 1 and 2, regarding spent fuel pool criticality control.

The NRC staff has reviewed the information provided and determined that in order to complete its evaluation, additional information is required. We would like to discuss the questions, in draft form below, with you in a conference call.

This e-mail aims solely to prepare you and others for the proposed conference call. It does not convey a formal NRC staff position, and it does not formally request for additional information.

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## DRAFT

The Reactor Systems Branch (SRXB) has reviewed the Kopp Letter and has determined that there is no indication that the depletion uncertainty described therein was intended to include the effects of the lack of actinides and fission products in the critical experiments used to benchmark the criticality codes. Additionally, the Office of New Reactors (NRO) just recently performed an analysis based on methods described in NUREG-6811, "Strategies for Application of Isotopic Uncertainties in Burnup Credit," to quantify the depletion uncertainty including the effects of actinides and fission products. NRO preliminary results showed that the 5% reactivity decrement approach is probably not adequate to cover the effects of the lack of actinides and fission products in the critical experiments in addition to the depletion uncertainty and the effects are potentially non-trivial. Consequently, the staff is unable to accept the assertion that uncertainties associated with not including fission product and actinide experiments in the criticality code validation is addressed by the 5% reactivity decrement depletion uncertainty.

Please quantify the uncertainty associated with the lack of fission product and actinide experiments in the criticality code validation.