

From: Poole, Justin
Sent: Thursday, August 13, 2009 5:45 PM
To: 'Hale, Steve'; COSTEDIO, JAMES
Subject: Draft - Request for Additional information from Containment and Ventilation on AST Round 2

Steve,

By letter dated December 8, 2008, FPL Energy Point Beach, LLC, submitted a license amendment application for Point Beach Nuclear Plant Units 1 and 2 to revise the current licensing basis to implement the alternate source term through reanalysis of the radiological consequences of the FSAR Chapter 14 accidents.

The Containment and Ventilation Branch 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

### SCVB#1

Provide the extent of the control room emergency filtration system (CREFS) and the primary auxiliary building ventilation system (VNPAB) that would be required to be functional to support the alternate source term (AST) licensing amendment request (LAR) by providing drawings suitably marked with the system boundaries and a list of structures, systems, and components (SSCs) that would be upgraded to augmented quality status. Include in the response, all new equipment that will be added to modify the CREFS and VNPAB to provide redundancy along with a discussion of the quality status to which such equipment will be designed, procured, installed and tested.

### SCVB#2

The CREFS consists of a single filter train with redundant fans. It was stated that four control room ventilation fans, which include the two CREFS fans, will auto-start on the emergency diesel generators (EDGs) upon receipt of a containment isolation signal or high radiation signal. Provide the following information:

- 2a. When both the CREFS fans are operating in parallel, discuss the maximum air flow through the filter system and the performance of the emergency air filter with particular attention to residence time for the charcoal filter and the assumptions used in the accident analysis.
- 2b. When all the four control room ventilation fans (i.e. the two control building HVAC fans and the two CREFS fans) are auto-started, discuss the pressure changes that could occur through the ductwork on a four fan operation versus two fan operation (i.e. one control building HVAC fan and one CREFS fan) and the capability of the ductwork to withstand these conditions. Describe the construction and leakage characteristics of the ductwork, potential for unfiltered in-leakage of air that could occur, and its impact on the accident analysis using the AST.
- 2c. Describe, according to the emergency operation procedures, how long all four fans will operate until operator action secures one train of fans. Indicate if any other operator actions are also required by any of the emergency operation procedures and the priority of stopping one train of fans relative to the other operator actions.

#### SCVB#3

TS surveillance Requirement 3.7.9.6 requires verification that each CREFS emergency fan can maintain a positive pressure of  $\geq 0.125$  inches water gauge in the control room envelope (CRE), relative to the adjacent turbine building during the emergency mode of operation. For the AST, is the CRE required to be pressurized with respect to any other adjacent spaces including spaces above and below the CRE? If not, provide justification.

#### SCVB#4

The LAR states that new control room actions are required to restore the VNPAB within 30 minutes following alignment of residual heat removal (RHR) to containment sump recirculation mode of operation. The LAR also states that if a LOCA occurs coincident with a loss of offsite power (LOOP), the VNPAB system will be manually restarted to ensure that the PAB vent stack is the source of the release associated with the ECCS leakage phase of the event. Provide the following additional information:

- 4a. Section 5.1.2 of RG 1.183 states that “assumptions regarding the occurrence and timing of a loss of offsite power should be selected with the objective of maximizing the postulated radiological consequences.” Provide a discussion on how this requirement is factored in the AST analysis and in the emergency operating procedures with respect to starting the VNPAB system.
- 4b. Your letter NRC 2009-0045, dated April 17, 2009, provided proposed technical specifications (TS) for VNPAB. This subject was briefly discussed in a phone call between the staff and the licensee on June 23, 2009. The staff’s concern is that the surveillance requirement did not include a performance check of the VNPAB in terms of flow, pressure, etc. Please provide a discussion in how credit for VNPAB is taken in the AST dose analysis. Explain how the vent stack becomes the source of all releases during the ECCS leakage phase of the event by mere operation of the VNPAB fans, with no regard for any minimum amount of flow that the fans need to operate at.

- 4c. The LAR states that credit is not taken for the VNPAB air filters. However, performance readiness of the VNPAB fans depends on the filter loading conditions. Explain how PBNP verifies that filter plugging will not adversely affect the performance of the VNPAB fans.