

From: Justin Poole
Sent: Monday, December 22, 2008 3:05 PM
To: 'james.costedio@fpl.com'
Cc: Lois James
Subject: Point Beach - AST phone call - Discussion on missing pH calculations

Jim,

As we talked on the phone, here is the set of questions that the staff says was passed on to you during the previous AST submittal. It seems as if it was done during a phone call and not during a public meeting or formal letter. Note, that this I am only sending you these in preparation for a phone call next week. The acceptance review under LIC 109 is still ongoing. We are not at this time asking you to supplement your submittal. If upon completion of the acceptance review per LIC 109, we conclude that your application was "Unacceptable with the Opportunity to Supplement," for this issue or another that may arise, we will have another phone call at that time. If you have any questions, feel free to give me a call.

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To minimize the conversion of ionic iodine to elemental iodine in the sump, the pH of the sump water should be maintained above a pH of 7 for a period of 30 days after a loss-of-cooling accident (LOCA). During this period, strong acids (hydrochloric and nitric acid) are being generated. Hydrochloric acid is formed from the decomposition of cable insulation, and nitric acid is formed from the irradiation of the environment existing in containment. If the pH of the sump water is not controlled, the pH value may drop below 7. To maintain a pH above the value of 7, a buffer should be added to the sump water.

To ensure that the pH in the sump remains basic over the period of 30 days post-LOCA, the licensee should provide the following information:

1. Identify all sources of post-LOCA strong acid generation in containment and time dependant values of strong acid concentrations in the sump for a period of 30 days post-LOCA.
2. Describe the analysis methodology used to determine the pH in the sump water during a period of 30 days post-LOCA. Include detailed calculations of time dependant pH values in the sump during a 30 day period post-LOCA to demonstrate that the pH remains basic throughout this time period.
3. If a computer program was used, describe the code and provide the input and output data of the program.

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## E-mail Properties

### Mail Envelope Properties ()

Subject: Point Beach - AST phone call - Discussion on missing pH calculations  
Sent Date: 12/22/2008 2:13:45 PM  
Received Date: 12/22/2008 3:04:00 PM  
From: Justin Poole

Created By: Justin.Poole@nrc.gov

### Recipients:

james.costedio@fpl.com ('james.costedio@fpl.com')  
Tracking Status: None  
Lois.James@nrc.gov (Lois James)  
Tracking Status: None

### Post Office:

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