

NRR-PMDAPEm Resource

From: Lyon, Fred
Sent: Monday, December 23, 2013 11:05 AM
To: Wideman Steve G
Cc: Muilenburg William T; Fici Melanie R; Blair Jeff T
Subject: RE: Wolf Creek Generating Station - Request for Additional Information Re: Transition to Westinghouse Core Design and Safety Analysis (TAC No. MF2574)

That works for us. Replace the original ESGB-RAI-1 and -2 with the question below, and call it ESGB-RAI-1.
Thanks, Fred

From: Wideman Steve G [mailto:stwidem@WCNOC.com]
Sent: Monday, December 23, 2013 9:57 AM
To: Lyon, Fred
Cc: Muilenburg William T; Fici Melanie R; Blair Jeff T
Subject: RE: Wolf Creek Generating Station - Request for Additional Information Re: Transition to Westinghouse Core Design and Safety Analysis (TAC No. MF2574)

Fred – in looking at revised ESGB-RAI-2, it really appears to be essentially the same as ESGB-RAI-1 with the exception of describing the analysis methodology. It would appear to me that the revised ESGB-RAI-2 should replace the original ESGB-RAI-1 and ESGB-RAI-2.

Steve

ESGB-RAI-1

Please identify all sources of post-loss-of-coolant accident (LOCA) strong acid generation in containment and time dependent values of strong acid concentrations in the sump for a period of 30 days post-LOCA.

ESGB-RAI-2

Please describe the ORIGEN-S computer code used to determine the pH in the sump water post-LOCA and the differences between it and ORIGEN-2/ARP. Please provide the input and output data of the program.

Describe the analysis methodology used to determine the pH in the sump water during the period of 30 days post-LOCA. Include detailed calculations of time dependent pH values in the sump during a 30 day period post-LOCA to demonstrate that the pH remains basic throughout this time period.

From: Lyon, Fred [mailto:Fred.Lyon@nrc.gov]
Sent: Monday, December 23, 2013 8:39 AM
To: Wideman Steve G
Cc: Muilenburg William T
Subject: FW: Wolf Creek Generating Station - Request for Additional Information Re: Transition to Westinghouse Core Design and Safety Analysis (TAC No. MF2574)

Steve, you were right. Please see the revised question below, and replace ESGB-RAI-2 in my RAI letter. You can reference this email in your response. Thanks, Fred

From: Obodoako, Aloysius
Sent: Monday, December 23, 2013 9:31 AM

To: Lyon, Fred

Subject: RE: Wolf Creek Generating Station - Request for Additional Information Re: Transition to Westinghouse Core Design and Safety Analysis (TAC No. MF2574)

Hi Fred,

I reviewed the RAI and draft licensee response and it answers my question. I think I must have confused the reactor vessel environment and the post-LOCA sump analyses. The intent of ESGB-RAI-2 was to request for the following information:

Describe the analysis methodology used to determine the pH in the sump water during the period of 30 days post-LOCA. Include detailed calculations of time dependent pH values in the sump during a 30 day period post-LOCA to demonstrate that the pH remains basic throughout this time period.

How do you propose we move forward. Should I draw up another RAI, which we will issue formally to gather this information or can we modify ESGB-RAI-2 such that it reflects the above request?

Aloysius

From: Lyon, Fred

Sent: Friday, December 20, 2013 8:03 AM

To: Obodoako, Aloysius

Cc: Kulesa, Gloria

Subject: FW: Wolf Creek Generating Station - Request for Additional Information Re: Transition to Westinghouse Core Design and Safety Analysis (TAC No. MF2574)

Please see the proposed answer below to your RAI question. The licensee wants to make sure they understand what you're asking for and why. The question didn't seem to be logical since they didn't use a computer code to do the pH determination. Let me know if you need to chat with them.

Thanks, Fred (x2296)

From: Wideman Steve G [<mailto:stwidem@WCNOC.com>]

Sent: Thursday, December 19, 2013 10:11 AM

To: Lyon, Fred

Cc: Fici Melanie R

Subject: RE: Wolf Creek Generating Station - Request for Additional Information Re: Transition to Westinghouse Core Design and Safety Analysis (TAC No. MF2574)

Fred – per our discussion on December 18, 2013 regarding RAI ESGB-RAI-2, provided below is the draft response for your discussion with the technical branch.

ESGB-RAI-2: “Please describe the ORIGEN-S computer code used to determine the pH in the sump water post-LOCA and the differences between it and ORIGEN-2/ARP. Please provide the input and output data of the program.”

DRAFT RESPONSE: In Enclosure VI of the LAR, Section 4.4.2.1 (page 4-105) it indicates that no computer codes were used in this analysis (referring to the containment sump pH analysis). This section specifically states:

“No computer codes were used in this analysis. To determine the pH in the CLB analysis, NaOH and H3BO3 molarities were first calculated and then used with Oak Ridge National Laboratory (ORNL) titration curve data to determine the pH of the spray and sump solutions during the injection and recirculation phases of ECCS operation.”

The information provided in Section 4.4.2.1 is similar to a V. C. Summer Nuclear Station letter submitted on June 15, 2009 (ADAMS Accession Number ML091680063) in response to a similar RAI question.

Steve Wideman
WCNOC Licensing
620-364-4037
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From: Lyon, Fred [<mailto:Fred.Lyon@nrc.gov>]
Sent: Monday, December 16, 2013 2:46 PM
To: Wideman Steve G
Cc: Muilenburg William T
Subject: FW: Wolf Creek Generating Station - Request for Additional Information Re: Transition to Westinghouse Core Design and Safety Analysis (TAC No. MF2574)

From: nrc_mail_1-2 Resource [mailto:nrc_mail_1-2.Resource@nrc.gov]
Sent: Monday, December 16, 2013 10:46 AM
To: Lyon, Fred
Subject: Wolf Creek Generating Station - Request for Additional Information Re: Transition to Westinghouse Core Design and Safety Analysis (TAC No. MF2574)

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ADAMS Accession No.: ML13345B335

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Subject: RE: Wolf Creek Generating Station - Request for Additional Information Re:
Transition to Westinghouse Core Design and Safety Analysis (TAC No. MF2574)
Sent Date: 12/23/2013 11:04:43 AM
Received Date: 12/23/2013 11:04:00 AM
From: Lyon, Fred

Created By: Fred.Lyon@nrc.gov

Recipients:
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Tracking Status: None
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