SeabrookNPEm Resource

From: Plasse, Richard
Sent: Wednesday, January 26, 2011 10:02 AM
To: Cliche, Richard
Subject: FW: Seabrook License Renewal Draft Requests for Additional Informtion
Attachments: TRP 85 Heat Exch 2 new RAIs - Gavula Kichline 1-24-11.doc

2 new draft RAIs

Hearing Identifier: Seabrook_License_Renewal_NonPublic
Email Number: 2243

Mail Envelope Properties (Richard.Plasse@nrc.gov20110126100200)

Subject: FW: Seabrook License Renewal Draft Requests for Additional Informtion
Sent Date: 1/26/2011 10:02:26 AM
Received Date: 1/26/2011 10:02:00 AM
From: Plasse, Richard

Created By: Richard.Plasse@nrc.gov

Recipients:
"Cliche, Richard" <Richard.Cliche@fpl.com>
Tracking Status: None

Post Office:

Files	**Size**	**Date & Time**
MESSAGE	18	1/26/2011 10:02:00 AM
TRP 85 Heat Exch 2 new RAIs - Gavula Kichline 1-24-11.doc	40446	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

RAI 3.2.2.2.4.2-1

Background:
SRP-LR Section 3.2.2.2.4, item 2, is associated with SRP-LR Table 3.2.1, item 3.2.1-10 and states that reduction of heat transfer due to fouling could occur for stainless steel heat exchanger tubes exposed to treated water. The SRP-LR also states that the existing program relies on control of water chemistry to manage reduction of heat transfer due to fouling but that since control of water chemistry may have been inadequate the effectiveness of the chemistry control program should be verified to ensure that reduction of heat transfer due to fouling is not occurring. SRP-LR Table 3.2.1, item 3.2.1-10 states that it applies to both BWRs and PWRs, and cites related item EP-34, which corresponds to GALL items V.A-16 for PWR containment spray system heat exchanger tubes and V.D2-13 for BWR emergency core cooling system heat exchanger tubes. Although the SRP-LR and the GALL Report list the environment as treated water, the basis for including GALL item EP-34, as documented in NUREG-1833, was a precedent established in the R.E. Ginna SER, NUREG-1786. The environment specifically noted in the Ginna SER was "treated water – borated," and as such, the applicable environment for this item is not strictly limited to treated water, and also includes treated borated water.

LRA Section 3.2.2.2.4, item 2 states that item 3.2.1-10 is not applicable to Seabrook, and that there are no stainless steel heat exchanger tubes exposed to treated water in the ESF systems. However, the staff noted that LRA Section 3.2 includes several systems with heat exchanger tubes exposed to treated borated water with an intended function of heat transfer that do not indicate that reduction in heat transfer due to fouling is an aging effect being managed.

Issue:
It is not clear to the staff why LRA Section 3.2.2.2.4, item 2 and LRA Table 3.2.1, item 3.2.1-10 state that this item is not applicable, given that NUREG-1833 states that the item is applicable to both BWR and PWR heat exchanger tubes exposed to treated water and treated borated water. It is also not clear to the staff why several heat exchanger items in LRA Section 3.2 specify an intended function of heat transfer, but do not indicate that reduction in heat transfer due to fouling is an aging effect being managed.

Request:
1) Provide the technical bases for the determination that LRA Section 3.2.2.2.4, item 2, which is associated with LRA Table 3.2.1 item 3.2.1-10, is not applicable to Seabrook. If it is determined to be applicable, provide the information regarding how Seabrook intends to meet the further evaluation criteria specified in the corresponding SRP-LR section.

2) For the line items in LRA Section 3.2 which have an intended function specified as "heat transfer," provide the technical bases for not managing reduction in heat transfer due to fouling as an aging effect.

RAI 3.3.2.2.2-1

Background:
SRP-LR Section 3.3.2.2.2 is associated with SRP-LR Table 3.3.1, item 3.3.1-3 and states that reduction of heat transfer due to fouling could occur for stainless steel heat exchanger tubes exposed to treated water. The SRP-LR also states that the existing program relies on control of water chemistry to manage reduction of heat transfer due to fouling but that since control of water chemistry may have been inadequate the effectiveness of the chemistry control program

should be verified to ensure that reduction of heat transfer due to fouling is not occurring. SRP-LR Table 3.3.1, item 3.3.1-3 states that this item applies to BWRs and PWRs, and cites related item AP-62, which corresponds to GALL items VII.A4-4 for BWR spent fuel pool cooling and cleanup heat exchanger tubes and VII.E3-6 for reactor water cleanup system heat exchanger tubes. Although the SRP-LR and the GALL Report list the environment as treated water, the basis for including GALL item AP-62, as documented in NUREG-1833, was a precedent established in the R.E. Ginna SER, NUREG-1786. The environment specifically noted in the Ginna SER was "treated water – borated," and as such, the applicable environment for this item is not strictly limited to treated water, and also includes treated borated water.

LRA Section 3.3.2.2.2 states that item 3.3.1-3 is not applicable for auxiliary system components at Seabrook, and that this line item is associated with GALL Report item, VIIE3-6 which is applicable to BWR reactor water cleanup system heat exchangers. However, the staff noted that LRA Section 3.3 includes several systems with heat exchanger tubes exposed to treated borated water with an intended function of "heat transfer;" that do not indicate that reduction of heat transfer due to fouling is an aging effect being managed.

Issue:
It is not clear to the staff why LRA Section 3.3.2.2.2, which is associated with SRP-LR Table 3.3.1 item 3.3.1-3, states that this item is not applicable, given that NUREG-1833 states that the item is applicable to both BWR and PWR heat exchanger tubes exposed to treated water and treated borated water. It is also not clear to the staff why several heat exchanger items in LRA Section 3.3 specify an intended function of "heat transfer," but do not indicate that reduction in heat transfer due to fouling is an aging effect being managed.

Request:
1) Provide the technical bases for the determination that LRA Section 3.3.2.2.2, which is associated with LRA Table 3.3.1 item 3.3.1-3, is not applicable to Seabrook. If it is determined to be applicable, provide information regarding how Seabrook intends to meet the further evaluation criteria specified in the corresponding SRP-LR section.

2) For the line items in LRA Section 3.3 which have an intended function specified as "heat transfer," provide the technical bases for not managing reduction in heat transfer due to fouling as an aging effect.