

From: [Guzman, Richard](#)
To: [Gaston, Ronald William](#); [Schrage, John](#)
Cc: [Mirzai, Mahvash](#)
Bcc: [Guzman, Richard](#)
Subject: RE: Follow-up from Entergy - HI-LIFT RAI Clarification Call
Date: Monday, December 21, 2020 7:36:00 PM

John and Ron,

The technical staff looked over the draft response and determined the two revised responses are not adequate as described below:

- Specifically, the two revised responses are not adequate because they do not completely address the necessary quality assurance, acceptance criteria, and standard or method of analysis.
- With respect to RAI 1.b, the response proposed a design verification through a HOLTEC evaluation of design documents to ASME B30.1. The problem with that approach is that the design criteria in ASME B30.1 for many structures and components are established by the manufacturer, so it is somewhat of a circular argument.
- Another problem area for this RAI is that the discussion suggests that critical load bearing welds (i.e., welds whose failure could cause the load to drop) are included in the strand jack design. While that is acceptable for commercial use, the ASME NOG-1 standard prohibits inclusion of critical load bearing welds in the hoist mechanism and the applicant claims to meet that standard.
- The response to RAI 3 is more incomplete because there are no drawings or supporting information addressing the design of the hydraulic system. However, beyond the incomplete nature of the response, it is not clear that an electrical interlock of the type discussed would resolve single failure concerns. For example, the interlock appears to prevent electrical power being applied to both upper and lower mini-jack control valves to open, but does not address the potential for a mechanical failure of one control valve causing it to stick open plus intended actuation of the other control valve to allow both mini-jacks to unseat the upper and lower wedges simultaneously.
- Also, the draft is incomplete because it references additions to the proprietary document HI-2188549 that were not included with the draft response.

This is not an exhaustive list of the issues with the proposed approach, but the response needs to address all aspects of design (quality, acceptance criteria, and analysis methods) to demonstrate that the strand jack is reasonably reliable to be considered single-failure-proof.

You can contact me next week if you're available to discuss Entergy's intended plan for resolving the stated insufficiencies and next steps. Recognizing that many of the individuals supporting this LAR / RAI response may still be on holiday break/leave, we can also target the week of Jan 4th to discuss the proposed path forward and have a follow-on clarification call if needed to go over any of the items above that may not be clear.

Thanks,

Rich Guzman

Sr. PM, Division of Operating Reactor Licensing

Office of Nuclear Reactor Regulation

U.S. Nuclear Regulatory Commission

Office: 0-9C7 | Phone: (301) 415-1030

Richard.Guzman@nrc.gov

From: Schrage, John <jschrag@entergy.com>

Sent: Friday, December 18, 2020 11:34 AM

To: Guzman, Richard <Richard.Guzman@nrc.gov>

Subject: [External_Sender] RE: Follow-up from Entergy - HI-LIFT RAI Clarification Call

Rich,

Thank you for the voice mail response message yesterday. In accordance with the proposed schedule specified in the 03-Dec-2020 email message below, Entergy has developed a draft response to the two clarification questions that were discussed on the 01-Dec-2020 teleconference with Mr. Jones (i.e., concerning Entergy's response to RAI-1.b and RAI-3). The attached pdf file provides the two draft responses.

For sake of completeness, the two original RAIs are restated, followed, in order by:

1. Entergy's initial response transmitted on 09-Nov-2020 (i.e., ADAMS Accession Nos. ML20314A355 and ML20314A356);
2. Mr. Jones' requests for clarification transmitted to Entergy on 19-Nov-2020 and discussed on 01-Dec-2020. This text is highlighted yellow;
3. Entergy's response to each clarification request – also highlighted yellow.

Please note that each page is clearly marked with a "DRAFT" watermark, as well as "HOLTEC PROPRIETARY AND CONFIDENTIAL." Therefore, the formal submittal on 05-Jan-2021 will include a redacted version and associated affidavit.

In addition, I would like to request a return email to verify receipt.

Thank you,

John L. Schrage

Senior Staff Engineer – Licensing

Corporate Regulatory Assurance

Entergy Services, Inc.

630-244-8848 (mobile)

From: Schrage, John
Sent: Thursday, December 03, 2020 11:15 AM
To: Guzman, Richard <Richard.Guzman@nrc.gov>
Subject: RE: Follow-up from Entergy - HI-LIFT RAI Clarification Call

Thanks Rich. I plan to bird dog the Holtec people as they proceed, and communicate with you frequently. We both know that this time of the year plays havoc with schedules.

From: Guzman, Richard <Richard.Guzman@nrc.gov>
Sent: Thursday, December 03, 2020 11:01 AM
To: Schrage, John <jschrag@entergy.com>
Cc: Gaston, Ronald William <rgasto1@entergy.com>; Mirzai, Mahvash <mmirzai@entergy.com>; GADO, THEODORE <tgado91@entergy.com>; Miller, Rich <rmill98@entergy.com>; Joseph Cascio <J.Cascio@holtec.com>; Matt Naylor <M.Naylor@holtec.com>; Ryan Konop <R.Konop@holtec.com>; Prithvish Gowda <P.Gowda@holtec.com>; Mackaman, Clyde D <cmackam@entergy.com>; Malinski, Steven <smalins@entergy.com>; Skonieczny, John F <jskonie@entergy.com>; Santis,Derek Dustin <dsantis@entergy.com>; Couture III, Philip <pcoutur@entergy.com>
Subject: RE: Follow-up from Entergy - HI-LIFT RAI Clarification Call

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John,

Thanks for the summary; I've provided your follow-up information to the technical staff.

Your understanding is correct. However, the original RAI 1.b. included the following statement: "If commercial grade dedication would be used, describe the critical characteristics of the strand jack and how each characteristic would be evaluated against the related acceptance criteria." The NRC staff would like the supplemental response to, at a minimum, address the compliance matrices included in the LAR to identify which items applicable to the strand jack would be verified and how the verification would be done.

The proposed schedule is reasonable. Certainly, we would look forward to seeing the draft response on or before 12/18 to be in a better position to confirm the timeline is achievable (i.e., docketed response by 1/5/2021).

Please reach out to me early and often, as needed for any questions and to help ensure the supplement is both timely and responsive to close the RAIs.

Thanks,

Rich Guzman

Sr. PM, Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
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Office: O-9C7 | Phone: (301) 415-1030
Richard.Guzman@nrc.gov

From: Schrage, John <jschrag@entergy.com>

Sent: Thursday, December 03, 2020 10:47 AM

To: Guzman, Richard <Richard.Guzman@nrc.gov>

Cc: Gaston, Ronald William <rgasto1@entergy.com>; Mirzai, Mahvash <mmirzai@entergy.com>; GADO, THEODORE <tgado91@entergy.com>; Miller, Rich <rmill98@entergy.com>; Joseph Cascio <J.Cascio@holtec.com>; Matt Naylor <M.Naylor@holtec.com>; Ryan Konop <R.Konop@holtec.com>; Prithvish Gowda <P.Gowda@holtec.com>; Mackaman, Clyde D <cmackam@entergy.com>; Malinski, Steven <smalins@entergy.com>; Skonieczny, John F <jskonie@entergy.com>; Santis, Derek Dustin <dsantis@entergy.com>; Couture III, Philip <pcoutur@entergy.com>

Subject: [External_Sender] Follow-up from Entergy - HI-LIFT RAI Clarification Call

Rich,

This is a follow-up message concerning the 01-Dec-2020 HI-LIFT LAR RAI clarification call. As I mentioned during that call, we have summarized our understanding of the information that Entergy needs to provide for the two RAIs in order for the NRC to complete the Safety Evaluation. In addition, we have identified a proposed schedule for transmitting that information to the NRC as a supplement. These two items are described below.

The objective of providing a summary of the needed information is to ensure that we are on the right path. Therefore, we would welcome any and all comments/adjustments from you and Mr. Jones.

With respect to the proposed schedule, as you suggested during the teleconference, we intend to provide a draft response. Similar to the previous item, we would appreciate any feedback on the schedule.

John L. Schrage
Senior Staff Engineer – Licensing
Corporate Regulatory Assurance
Entergy Services, Inc.
630-244-8848 (mobile)

- a. RAI-1.b: The response does not add any new testing or other qualification measures to the initial proposal. The staff was looking for some elements that justify the quality of the design and fabrication beyond a load test. The RAI included, as an example, a review of manufacturer operating experience for the particular technology, which provides more than just the snapshot of performance provided by the load test. Instead, the response just put the load test into the framework of NQA-1 commercial-grade dedication without justifying its adequacy to meet NUREG-0554 criteria for QA verification.

Our understanding is that there is a concern that the strand jack may include deficiencies that are not discovered during the planned program of functional testing and load testing. A plan for validating the quality of the design and manufacture of the strand jack is needed, to provide confidence that deficiencies are not embedded in the equipment. Such a plan must follow an endorsed method, such as NQA-1, and must be included in the docket.

- b. RAI-3: The response essentially moves the goalposts regarding how the system withstands single failures without addressing whether or not control system failures could cause a significant problem

Our understanding is that more information is required on the role of the control system in the safety of the strand jack, and what specifically is in place to prevent system failures or malfunctions from impacting the safety of the strand jack. Specifically, this relates to the mini-jacks that unseat the wedge collets to allow the strands to move. The response should include what features are in place to prevent this from occurring on the wedges supporting the load, and how will this be verified as a critical characteristic during acceptance testing and dedication.

2. Proposed Schedule

Entergy will provide a draft response on or before 18-Dec-2020, and a final, docketed response on or before 05-Jan-2021.

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