

NRC Question Response Form

Request Number: 22

Status:

Requested By (Inspector name):Date Requested:Question / Document Request: Q D (circle one)System:Detailed Question or Request:

Explain why there is a discrepancy between Addendum 2 and Addendum 5 in regards to Turbine Building habitability time following a FW/CD/HD line break. Addendum 5 (HRA) states that the Turbine building can be entered after 10 minutes following a FW/CD/HD line break. However, tables in Addendum 2 have longer habitability times.

Initiated By (individual taking the request): J. RitterAssigned To: Raymond DremelDate Assigned: July 13, 2010**CAP / Work Order Issued? Yes** No (circle one) Number: _____

Response (include a list of documents provided):

The habitability times shown in Addendum 2 are the latest time that temperature in the turbine building drops below 130 degrees F considering all direct transient effects expected as a result of the high energy line break (HELB). However, the times shown in Addendum 2 do not consider any temperature effects that may be caused by the flood water.

As shown in the response to question 26, the temperature response in the turbine building shows an initial spike corresponding to the initial release of high-energy fluid. Temperatures decrease rapidly after the initial release stops. Then temperatures slowly increase due to heat release from the hot fluid that accumulated in the condenser pit. As can be seen from the graphs shown in the response to Question 26, temperatures in the turbine building decrease to habitable levels, e.g., less than 130 deg F, less than ten minutes after the initial HELB. It is also seen that the subsequent temperature increase is only slightly above 130 deg F and occurs well after operators would have been expected to enter the turbine building. Further, the temperature profiles shown in the response to Question 26 do not consider the moderating effects of the significant volume of flood water that will be released as a result of flooding. The flood waters would be expected to cool the water in the condenser pit and mitigate any temperature rise subsequent to the initial decrease.

Use of this form as a procedural aid does not require retention as a quality record.

Because the operators would have an opportunity to enter the turbine building within ten minutes and because the flood water would mitigate any temperature rise, a ten minute habitability time was used for the human reliability analysis unless otherwise noted.

Is this an equipment issue that affects plant operability? Yes No

If yes, contact the Shift Manager immediately. _____

Date/Contacted By

Completed By: Raymond Dremel per email J.Ritter Date Completed: 7/16/10

Peer / Tech Review / Validation By: Char Greene per email J.Ritter Date Completed: 7/16/10

Team Leader / Supervisor Review / Approval: [Signature] Date Completed: 7-16-10

Additional Info Attached? Yes No [forward a copy to Regulatory Affairs]

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Reviewer Verification Guidance

- Data Requests:
 - Is the information provided complete? Was any material removed from the information provided?
 - Is the information provided correct? Was the preparer of the response a subject matter expert?
- Information Requests:
 - Does the response answer the question being asked? Is the response on topic and clear?
 - Are inputs and assumptions appropriately validated?

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- If there is an embedded calculation, is the math correct?
- Is the response well formulated? Was enough work put into the response?
- Does the response reflect a differing professional opinion between the preparer and the inspector? Is the response professional in tone? Is the response argumentative?
- Is there a condition adverse to quality? Has a CAP been initiated?