

NRC Question Response Form

Request Number: 13

Status:

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

Why is a HELB interaction of a 4" target pipe screened out? NRC realizes the flow from the 4" pipe would be small, but we would also have the HELB system flow contributing to flooding?

Initiated By (individual taking the request): RitterAssigned To (Person responding to request):Date Assigned:CAP / Work Order Issued? Yes / No (circle one) Number: _____

Response (include a list of documents provided):

In all cases (except for the dual unit seismic event), the entire contents of the condenser, FWH shells, HD tank, HD coolers, FW / HD / CD piping was added to the condenser pit in the first 5 minutes of the transient (plus 5% for conservatism). Adding the entire mass of water from the feedwater, condensate, heater drain, steam generator, and main steam to the condenser pit is the worst case scenario. In many cases, water will still remain in the steam generator, condenser and portions of the feedwater system. Therefore, the HELB system flow mentioned in the question above was conservatively accounted for.

However, it is acknowledged that a 4" target is not zero risk. The flow rates from a 4" target are expected to have a required isolation time greater than 3 hours (even with the conservatism mentioned above). The human error probability associated with a 3 hour isolation time (three hours is much greater than our calculated habitability times for HELB and much greater than required emergency response organization times) is overwhelmingly outweighed by the events requiring 1-2 isolation time. The NRC's SPAR-H HELB model indicates a 0.0 HEP for 3 hours vs. a 0.33 HEP for events requiring isolation between 1-2 hours.

Therefore, it can be seen that is reasonable to exclude 4" targets from the evaluation as their risk would be minimal in comparison to much larger break sizes.

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

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

If yes, contact the Shift Manager immediately. _____

Date/Contacted By

Completed By: *Theresa Pica*

Date Completed: *7-16-10*

Peer / Tech Review / Validation By: *Eric Hill*

Date Completed: *7-16-10*

Team Leader / Supervisor Review / Approval: *Sean Ford*
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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?
 - 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?