

Enclosure 2

MFN 14-052, Revision 1, Supplement 2

GEH Revised Response #2 to RAI 06.02.01.01.C-1

Public Version

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NRC Request for Supplemental Information:

- 1) *In DCD Revision 4 the Vent Loss Coefficient was listed in Table 6.2-2 as between 2.5 to 3.5. In DCD Revision 5 the loss coefficient is changed to between 2.5 to 5.0. GEH cited NEDO-33372 and indicated that the applicable information was extracted from this NEDO document and put into the DCD. The NRC reviewed NEDO-33372 and the Vent Loss Coefficient is listed as between 2.5 to 3.5. Why was the range changed to 2.5 to 5.0 in Rev 5 of the DCD?*

- 2) *Clarification is required for the following statement that was included in the response to NRC RAI 06.02.01.01C-1 Part 1 (Reference 3): "PRC 03-069, "ABWR Main Steam Line Break Containment Response Analysis", have been implemented for the revised containment analyses of ABWR DCD Revision 5." What actually required reanalysis? What were the changes that were done as a result of PRC- 03-069 (Reference 4)? What inputs changed and how can GEH confirm that the model is correct? What analytical assumptions and resulting parameters actually changed when going from DCD R4 to DCD R5...like SP airspace volume and SP water volume.*

GEH Response to Supplemental Information Request:

- 1) Please note that the range of vent loss coefficient values shown in the markup for DCD Table 6.2-2 that was included in NEDO-33372 does show a vent loss coefficient range of 2.5 – 5.0. The original upper end value of 3.5 is shown crossed out in the markup.

The original range of 2.5-3.5 was first developed for use with the GEH M3CPT code for analyses of the Mark III short-term containment response. It was then applied in the ABWR M3CPT analyses due to the similarity in the Mark III and ABWR horizontal vent system geometry. A subsequent evaluation updated the range of vent loss coefficients for Mark III M3CPT analysis to 2.5 to 5.0. The revised values were then also applied to the ABWR M3CPT containment analysis.

The values currently shown in Table 6.2-2 for DCD Revision 5 (2.5-5.0) only include the losses associated with the ABWR vent system. It does not include or identify a 1.7 loss coefficient adder to the values shown in Table 6.2-2 that was applied to account for flow losses associated with the ABWR Drywell Connecting Vent (DCV) that connects the upper drywell to the vent system.

The attached file "DCD R6 Table 6_2-2 Markup.pdf" contains a markup for Table 6.2-2 that now identifies the range of overall vent loss coefficients used for the analyses for DCD Revision 6, that includes the 1.7 adder (4.2-6.7).

2) [[

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Impact on DCD:

The following ABWR DCD Revision 6 table will be revised as shown in the markup provided in Enclosure 2 as a result of this response:

- ABWR DCD Tier 2, Table 6.2-2