

Treatment of External Hazards in the RICT Program

The NRC staff noted the need for more explicit guidance on treatment of external hazards in TSTF-505 applications, specifically stating that:

The SE on NEI 06-09 Section 4.0 Limitations and Condition number (6) clarifies that, “[t]he LAR will provide the plant-specific total CDF and total LERF to confirm that these are less than 10^{-4} /year and 10^{-5} /year, respectively. NEI 06-09 Section 3.3.5 External Events Consideration, clarifies that external hazards impact on configuration risk should be addressed for each RICT calculation. Therefore, the contribution to risk from unmodelled hazards must be dispositioned for 1) the total baseline risk and 2) for each RICT calculation.

While Section 3.3.5 of NEI 06-09 does not require consideration of external hazards risk in each RICT calculation, it instead calls for addressing “external events that the PRA would indicate as risk significant and that would affect maintenance decisions.” The disposition of external hazards is discussed in the model application in response to NRC SE condition 5; however, the industry understands that the NRC is looking for more detailed information. To address the NRC staff’s concern, the industry proposes adding the following notes to the TSTF-505 model application Enclosure 5, "Baseline CDF and LERF.

External hazards screened out from inclusion in RICT calculations should be clearly identified as such, and the justification for their screening should be included.

For external hazards which are not screened out from inclusion in RICT calculations, the licensee may propose a bounding approach (“penalty factor”) to address the hazard. If the bounding approach involves assuming a uniform increase in baseline risk to address the hazard, the licensee will need to:

- Demonstrate in the LAR that this approach is bounding for all TS actions included in the LAR, or
- Establish a procedure to evaluate the validity of the bounding approach when calculating an RICT that is not demonstrated to be bounded in the LAR, or
- For RICTs not demonstrated to be bounded in the LAR, establish a procedure to qualitatively evaluate the impact of the specific external hazard for each RICT when calculated and apply risk management actions as appropriate.