Missile Impact Probability (MIP) Discussion

The use of 1978 EPRI NP-768 derived MIP values for generic use with other sites is relevant because:

- Computed MIP values depend on mutual target shielding, height of target structure, and initial insertion height of the missile assumptions.
- The NP-768 hits come from missiles "close" to the target. The TORMIS analysis in NP-768 possibly included many missiles, outside the "close" area, that did not hit the target. Those "missing" missiles would tend to non-conservatively reduce the value of MIP.
- The NP-768 hit values come from an analysis that assumed uniform missile distribution. The result of assuming missiles clustered in a region close to unshielded targets is unknown.

When EPRI NP-768 data are used as the basis for MIP values, are these considerations relevant?

1) using data for the target in EPRI NP-768 that results in the largest MIP value (Plant A target #6, which represents a low, unprotected target within a high missile flux concentration)
2) using completed results obtained from items 1 a – n in "Action Items from March 23 TMRE Tabletop" to provide simplified sensitivity analyses to the derived value of MIP for item #1 above
3) establishing missile free zones within a suitable distance around the exposed targets to provide additional defense in depth assurance
4) demonstrating through an analysis that significant quantitative credit (i.e., reduction in missile hit probability) can be obtained by establishing those missile free zones out to a certain distance from each target, such that margin is shown to exist within the MIP concept (derived not including missile-free zones) by including administrative defense in depth actions.