

## 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.