Neutrino Factory Mercury Pool Splash Mitigation

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IDS Videoconference

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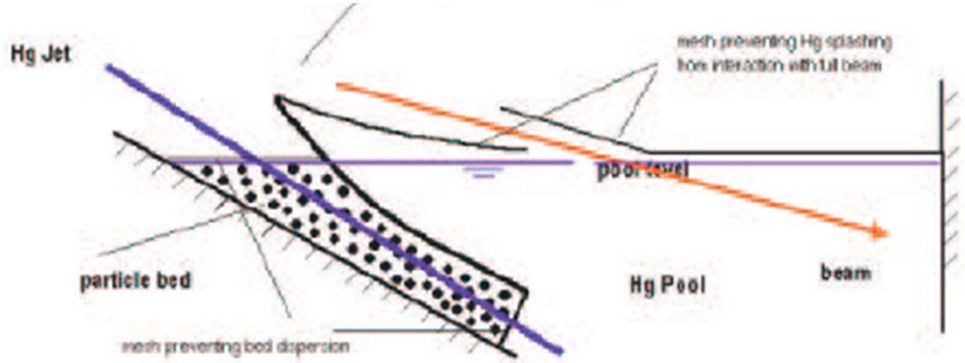
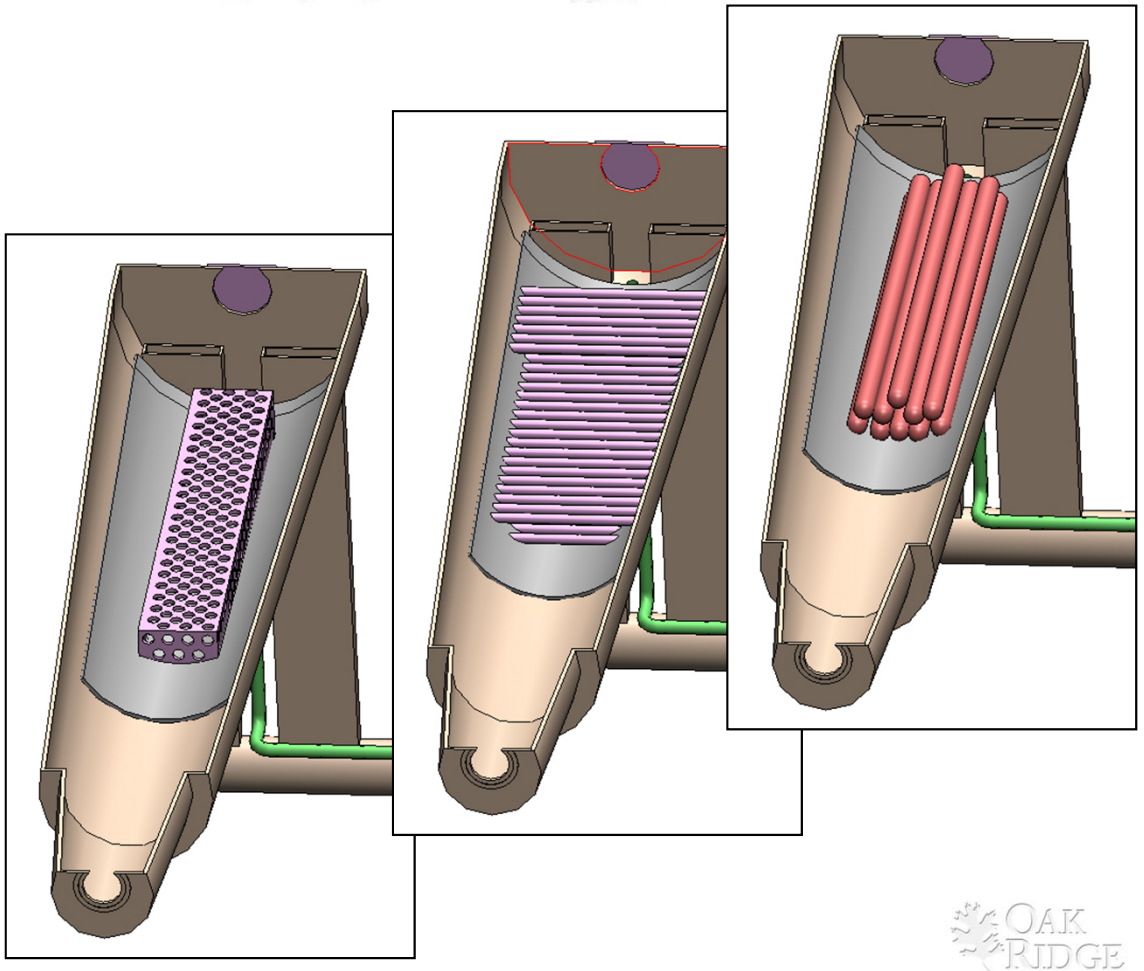
Splash Mitigation

- Study 2 assumed a particle bed of tungsten balls to minimize effects of jet entering pool
- Many other feasible concepts to accomplish this function
- Simulation/analytical studies may be useful to limit options
- Pool circulation and drainage locations also need to be studied
- Prototypic testing needed for comparison & final determination





Issues & Questions

- Do jet & beam drill hole into mercury pool?
- Narrow or wide channel? Deep or shallow?
- How & where to incorporate drainage? Upstream or downstream?
- How to protect downstream beam window from waves and splashes?
- Is the steady-state condition calmer than start-up?
- Can these mitigation options be easily simulated? What about doing water tests?