

FAARM Risk Assessment List

This document is a preliminary list of risks associated with the FAARM facility. After the list matures, the information will be transferred to the DUSEL templates. The risks are listed in a hierarchical format, by major category.

A. Environmental health and safety risks

1. Fire
 - i. Inside water shield
 - ii. In first floor common space
 - iii. In machine shop
 - iv. In chemistry laboratory
 - v. In transition space
 - vi. In office/control room
 - vii. In mechanical, electrical, radon control space
2. Hazardous materials
 - i. Chemicals
 - ii. Cryogenics (burns, etc.)
 - iii. Cryogenics (ODH)
 - iv. Lead
3. Radiation
 - i. Calibration sources
 - ii. Welding
 - iii. Other
4. Structural failure
 - i. Deck structure
 - ii. False floor
 - iii. Lifting devices
5. Water shield leak
 - i. Minor leak
 - ii. Major leak
6. Immersion tank leak
 - i. Minor leak
 - ii. Major leak
7. Falls
8. Electrocution
9. Material Handling
 - i. Crushing hazards
 - ii. Tripping hazards
 - iii. Lifting hazards
 - iv. Pinch-point hazards
10. Machine Shop
 - i. Eye hazards
 - ii. Wounds
 - iii. Particulates
 - iv. Tripping hazards
 - v. Snagged clothing
 - vi. Audio hazards

- vii. Lifting hazards
- B. Functionality or Programmatic Risks
 - 1. Shield issues
 - i. Cost
 - ii. Thickness
 - iii. Integration with veto shield
 - 2. Immersion tank
 - i. Required shielding (e.g. diameter and height)
 - ii. Loading
 - iii. Sample support structure
 - 3. Space needs exceed facility size
 - 4. Excessive backgrounds
 - i. Rhyolite dikes
 - ii. Construction components