Fabrication Packages

- All fabrication drawings completed
- Baseplates – UMiss
- Syringe pump – Airline Hydraulics
- Sump tank & piping – Airline Hydraulics
- Secondary containment box – Princeton U.
- Hg jet chamber & secondary containment sleeve – TBD
- Initial SS Hg nozzle & piping – TBD
- Final Ti nozzle / piping & beam windows - TBD
Baseplates

- Primarily fabricated from Al 6061-T6
- All procured items received
- Fabricated items cut to size, in queue for welding
Syringe Pump & Sump Tank Piping

- Pump operational & tested
  - Final modifications in progress
  - Non-magnetic tie rods in transit to AHC
- Added sump tank / piping to original work scope
- AHC expects system ready to ship by May 19
Secondary Containment Box

- Machining completed, preparations for welding underway
- Work scope also includes various gaskets, lexan cover plates, port covers, optical diagnostic mounting hardware, & Hg vapor filter housings
Hg Jet Chamber & Secondary Containment Sleeve

- Both components SS316L
- Bids have been received & are being evaluated
  - Single procurement
SS Nozzle & Piping

- Initial testing will incorporate SS components rather than Ti for cost & schedule benefits

- Two configurations being fabricated
  - Reducer before 180° bend
  - Reducer after 180° bend

- Test both at ORNL, hopefully eliminate changes at MIT

- Vendor TBD, possibly Princeton U.
Ti Nozzle/Piping & Beam Windows

• In-beam nozzle flange & beam windows must be fabricated from Ti6Al4V

• Prefer that entire Hg supply assembly be fabricated from Ti to eliminate dissimilar metals issues

• Bids requested based on current design of Ti components
  – Possible long delivery times
  – Ti material has been procured by Princeton
  – May require two fabricators, one for machining & one for welding
Conclusions

- Most Hg delivery system components either in fabrication or close to being awarded
- Titanium fabricator search continuing, awaiting bids from several vendors
- Expect working syringe system at ORNL by end of May
- Control system development will continue upon receipt of syringe hardware