

# RFQ Installation Status

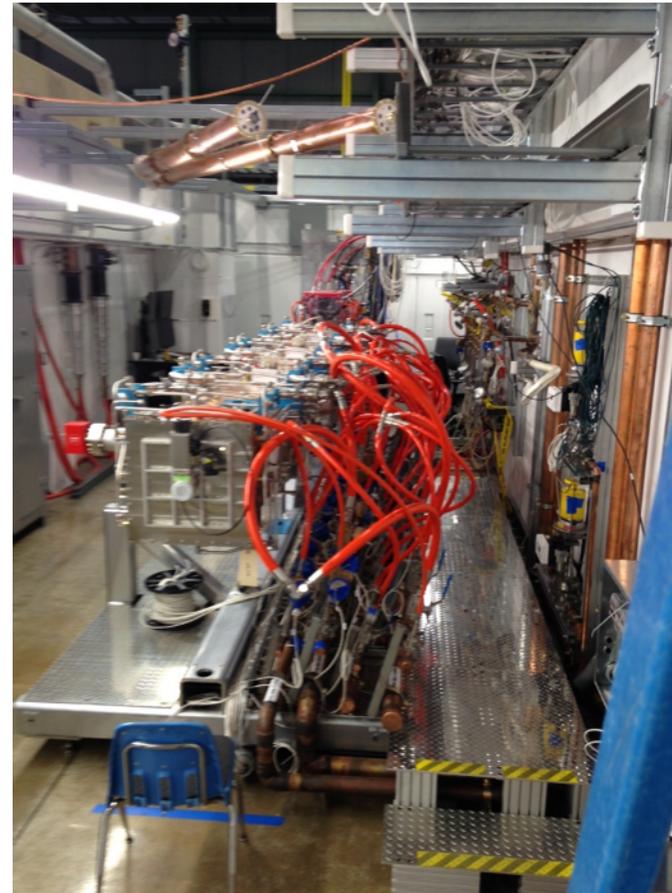
## 11/24/2015

November 24, 2015

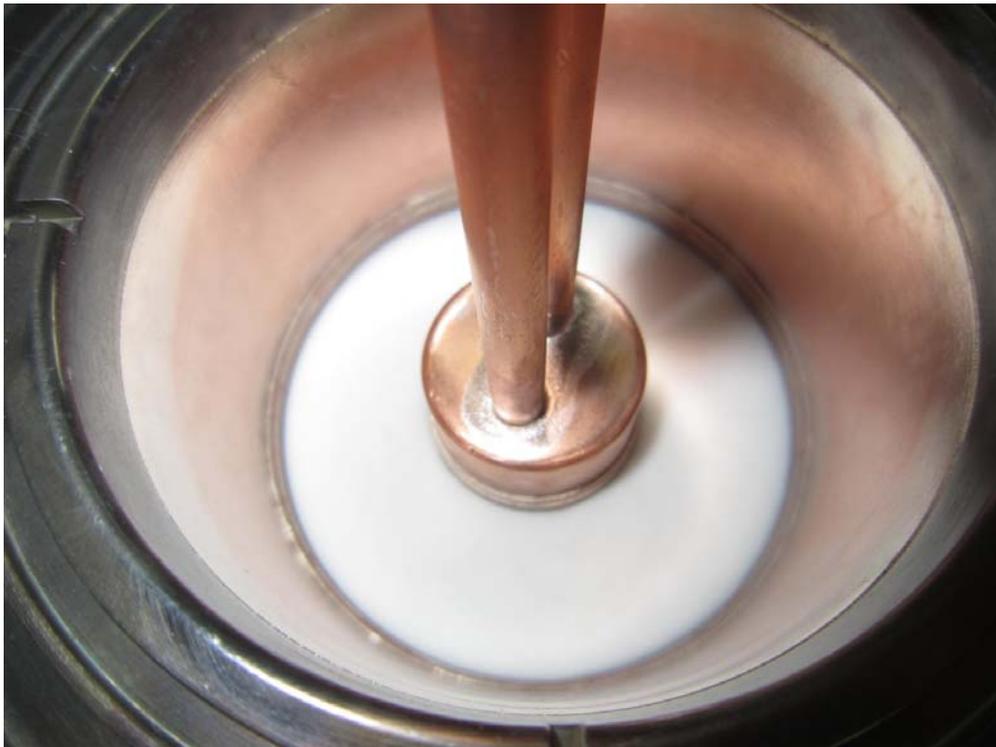
Jim Steimel & Curtis Baffes

# RFQ Water Cooling System

- All RFQ manifold systems have been hosed and instrumented.
- Many instruments are already on-line; final wiring will be completed next week.
- System successfully flushed with bypass hoses and working pumps.
- We have a stuck control valve that may need to be returned for repair.



# RFQ Input Coupler



- First antenna successfully cleaned, hi-potted, and TiN coated; will likely arrive 2<sup>nd</sup> week in Dec.
- Cleaning of first antenna moved up due to repairs of vendor braze furnace.
- Braze of second antenna will start next week.
- Currently procuring components for fail-safe, antenna air cooling interlocks.

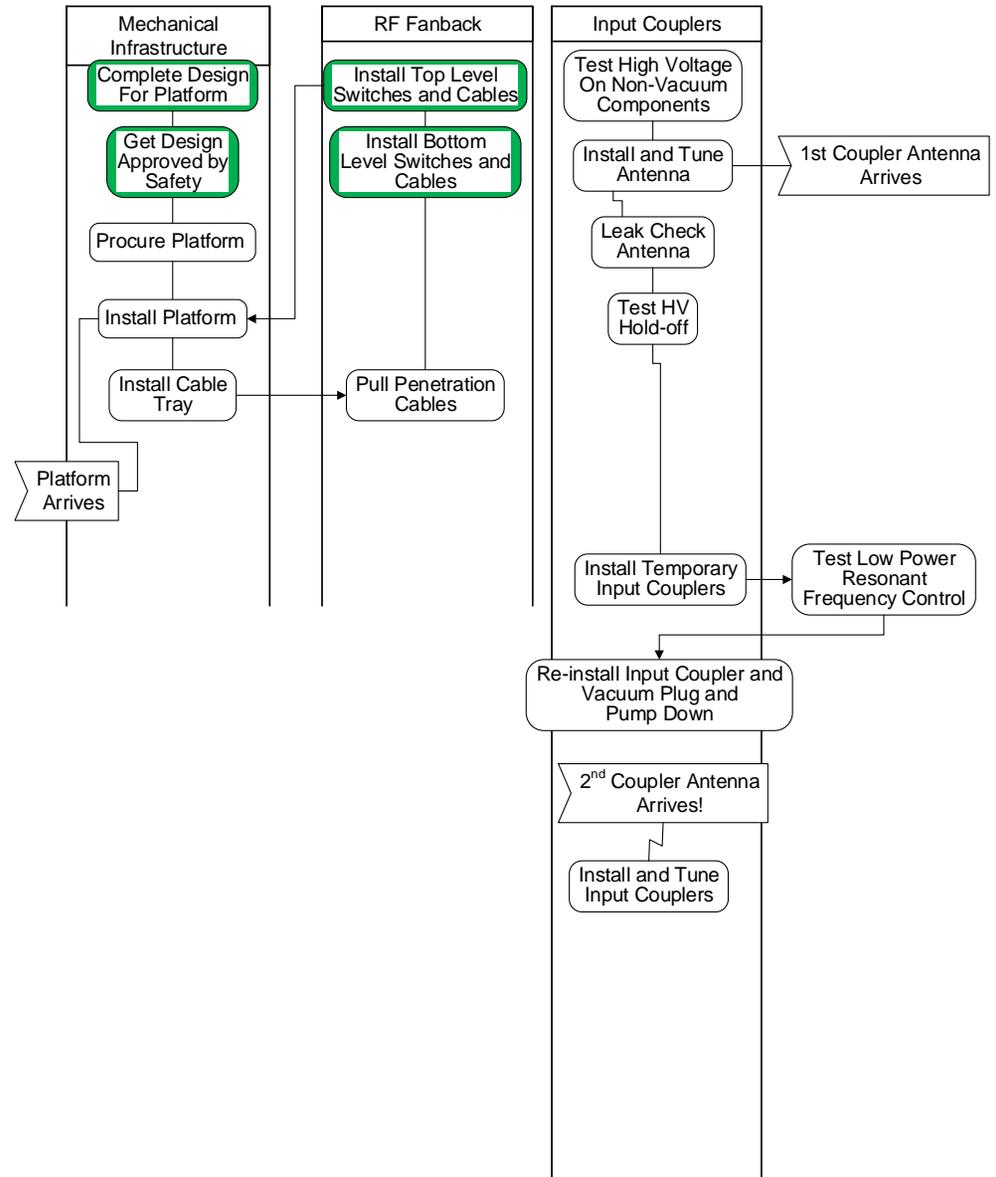
# RFQ Power Amplifier

- Power amplifiers have run simultaneously at 60kW output power at 10% duty cycle stably for the last week. (Shut down over weekend due to broken control valve on main LCW system.)
- Still no word from vendor on failure mode of damaged slices during CW operation.
- Extra spare components will have 4-5 month lead time.
- Unlikely we will condition RFQ in CW mode before testing pulsed beam.

# Other Milestones

- Network communication established with resonant control system processor. Interfacing to water instrumentation has begun.
- RF fanback switch tree installed and cabled.
- LLRF system successfully tested in CW mode. Currently working on self-excited-loop mode for pulsed operation to support RFQ conditioning.

# Installation Order



# Tentative Schedule

- First input coupler likely to arrive 2<sup>nd</sup> week in Dec.
- If RFQ skid control valve operational, low level tests will happen immediately, otherwise after initial coupler tests.
- Arrival of 2<sup>nd</sup> coupler still critical path of start of conditioning. If all goes well, conditioning can start as early as Jan 20.
- Conditioning may go quickly if amplifiers preclude CW operation.