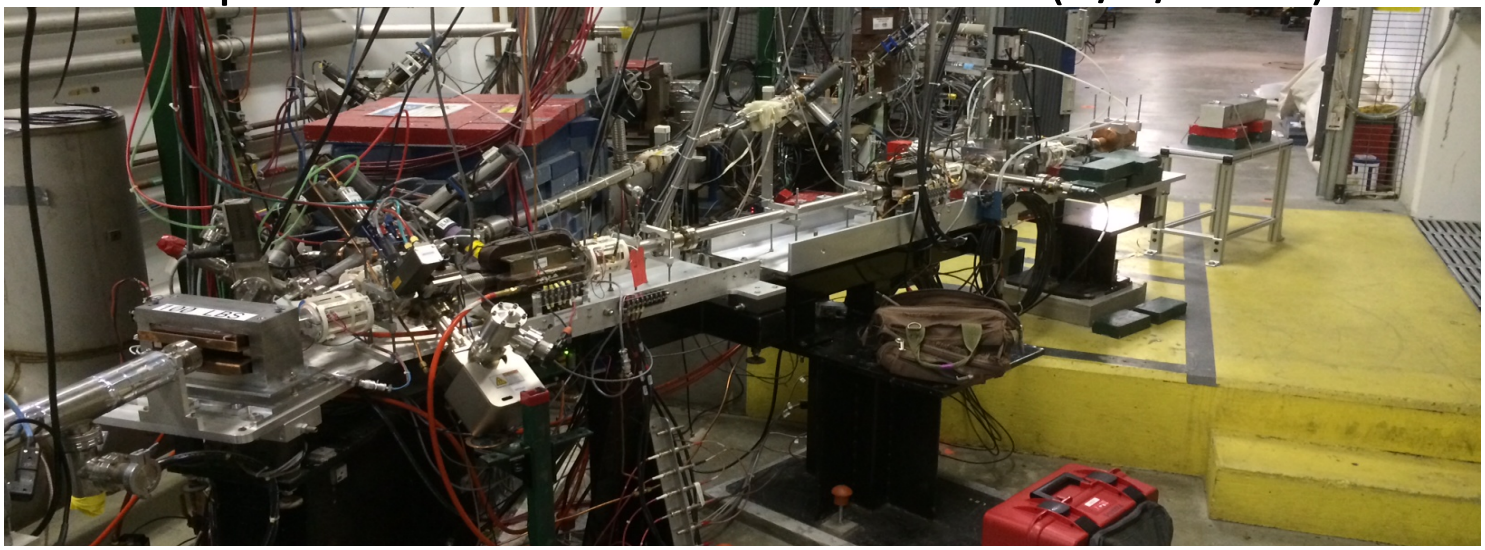
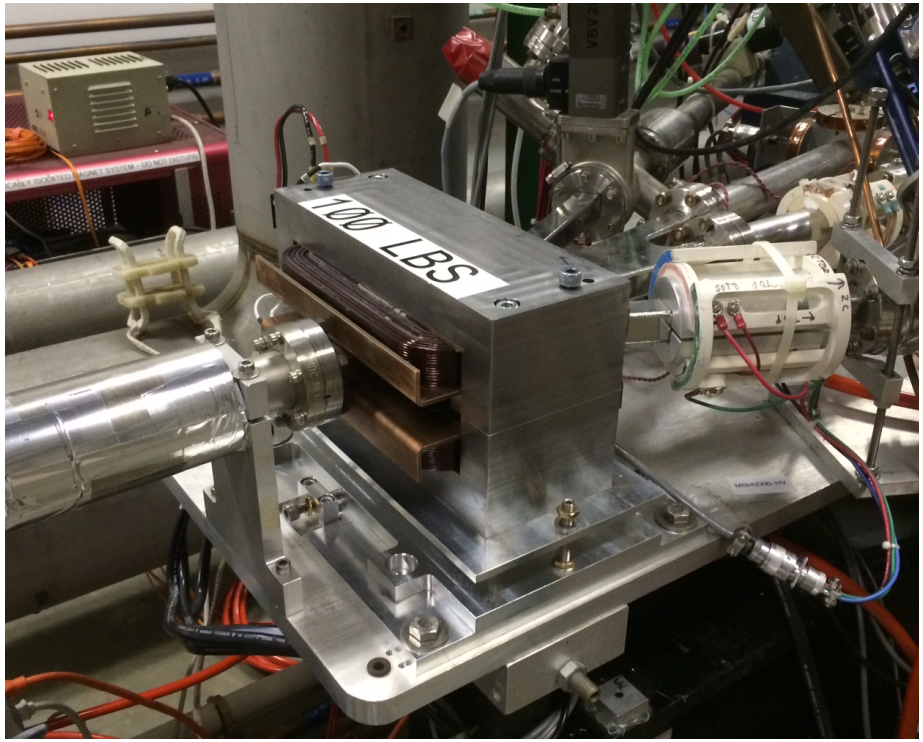
Experiment beam line installation (9/4/2014)



System	*Thus Far*	*To Do*
Vacuum	~10^{-10} Torr, IP's on, Vac interlock check	None
Fast valve	Valve + CCG installed, FV interlock check	None
New dipole	Measured (<0.03%) + Field Map, Installed, and aligned	Update control software
Dipole Hall probe	Tesla meter + PC104/cables (com) installed	Mount probe, PC104 on network
Transport magnets	2 Quads/LCW + 4 Corrector pairs ready	None
Position monitors	Goubau line tested, installed and elec. calibrated	None
Viewers	Installed	Air line/anti-collision
Faraday cup	Installed, LCW, current monitoring	Air line/anti-collission
Radiator	Installed, LCW, current monitoring	Lead hut, ME document thermal anal
Photon line	Collimator/Dump installed	None
Alignment	Pre-align	Final ~today

New spectrometer magnet



NMR measurements

- 1st pass (<0.03% midplane)
- 2nd pass (<0.01% midplane)

Hall probe

- Grid measurements
- Calibrated to NMR

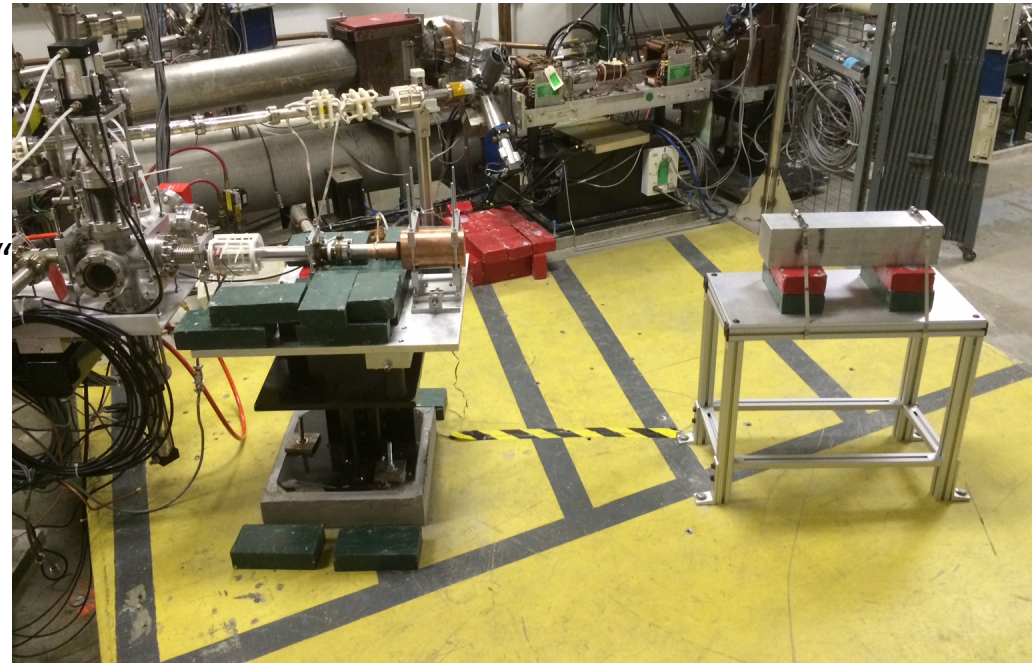
Stretched wire

- Signal too weak

Alignment

- Fixture plate offset => X = -5mm, Z=1.2mm
- Dipole chamber roll => Y +0.1mm

Faraday Cup to Photon Dump



Electron Radiator

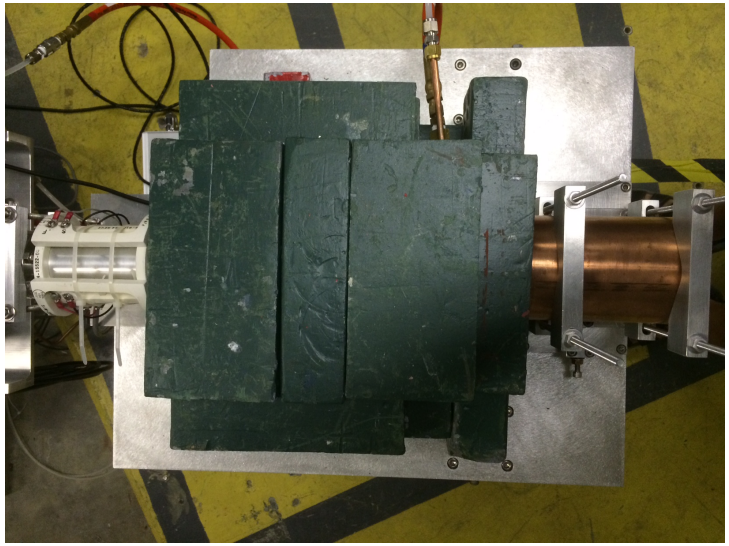
- Final thickness = 0.231 +.003 -.002 "
- ME analysis suggests 1kW OK

Shielding

- Pb staged for startup
- Coordinate alternative w/ RadCon

Bremsstrahlung Measurement

- Detector group may have Ge detector
- Estimate photon flux



Summary

New beam line should be ready for the Fall run

Commissioning plan should be submitted

- Checklist of machine protection interlocks and controls
- Checkout of beam line with electron beam

Beam Studies

- Momentum measurement
- Bremsstrahlung spectra
- Operation at high current