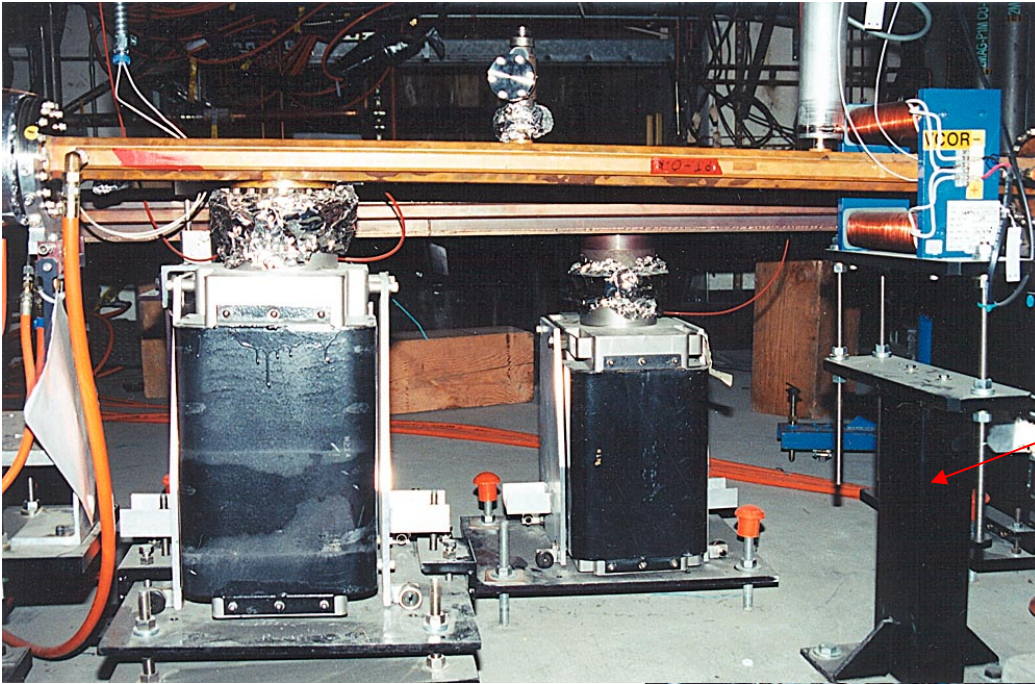
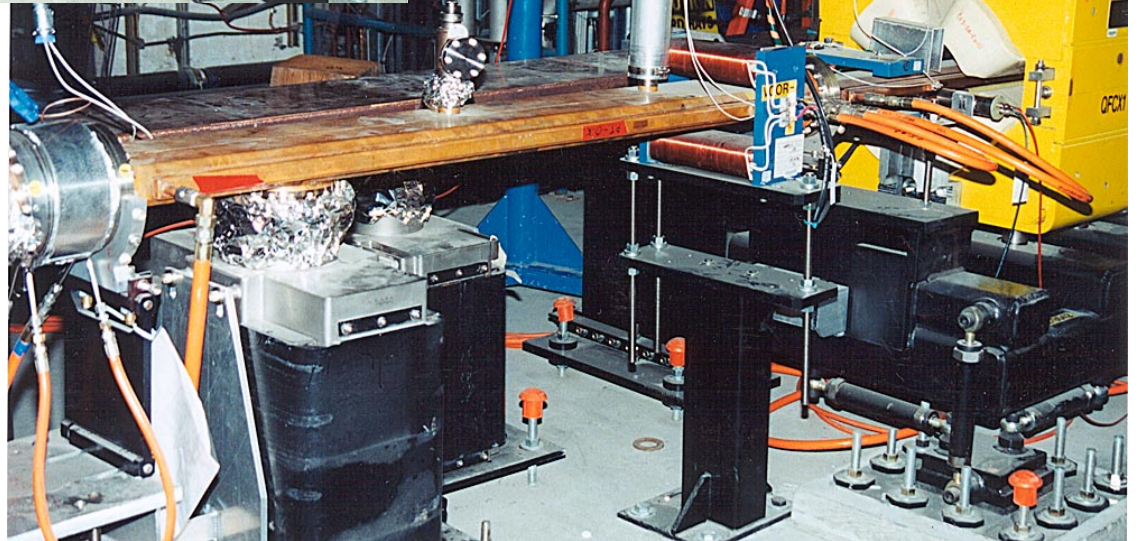


# 1) Remove Collimator 3043 (12m) and replace with original beam pipe.

- Original beam pipe has been located in storage and can now be cleaned (HEPA vacuum and swab) and baked after solenoid windings have been removed.
- Corrector support has not yet been located
- Note that the corrector was moved upstream to make room for the collimator.
- Downstream bellows will be removed to make way for the original beam pipe.
- Upstream bellows and chamber support, vacuum gages and ion pump are all unchanged.
- Shield wall should probably be left in place.



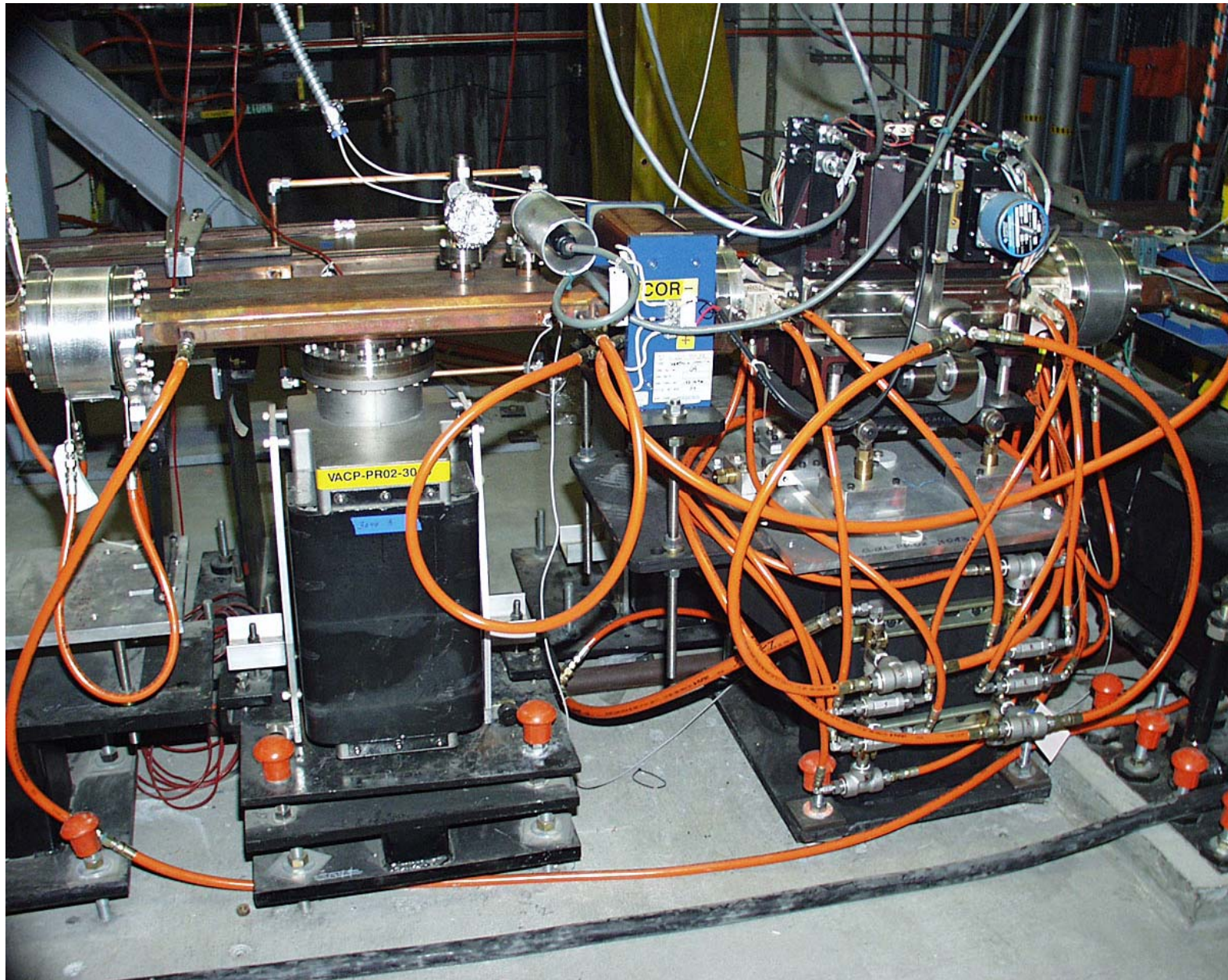
Corrector stand not yet located



Chamber 3043 prior to collimator installation

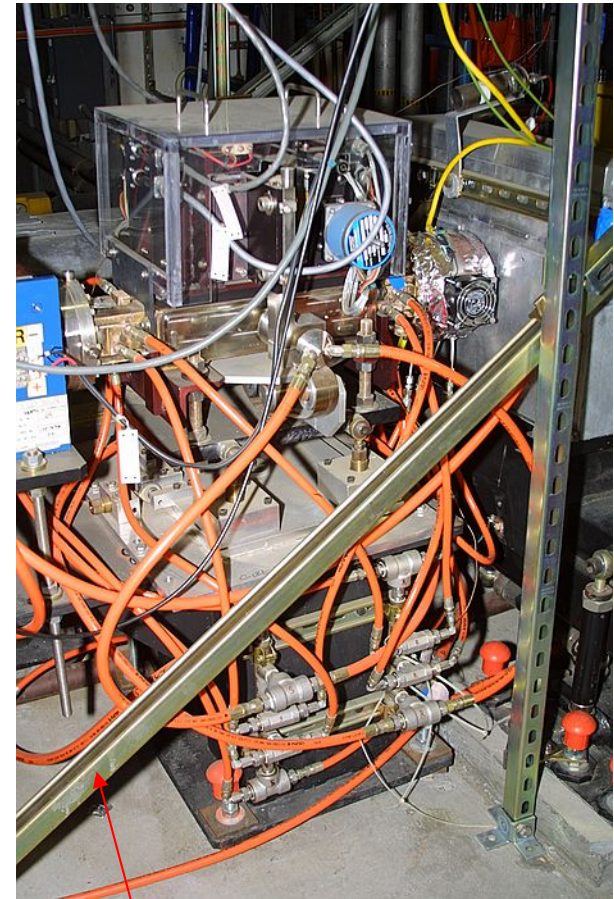
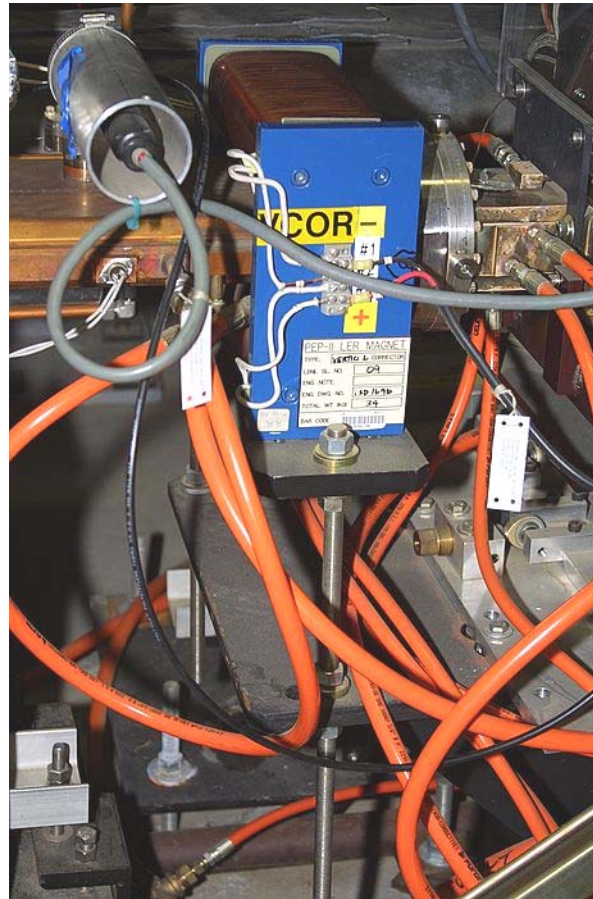
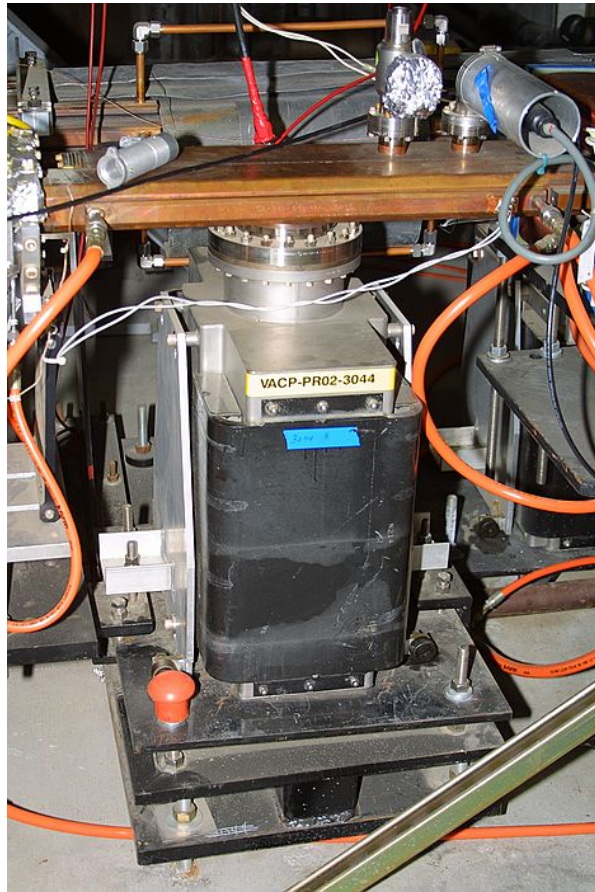


# Coll 3043 and drift after installation, Feb 2001





## Coll 3043 and drift, June 2004

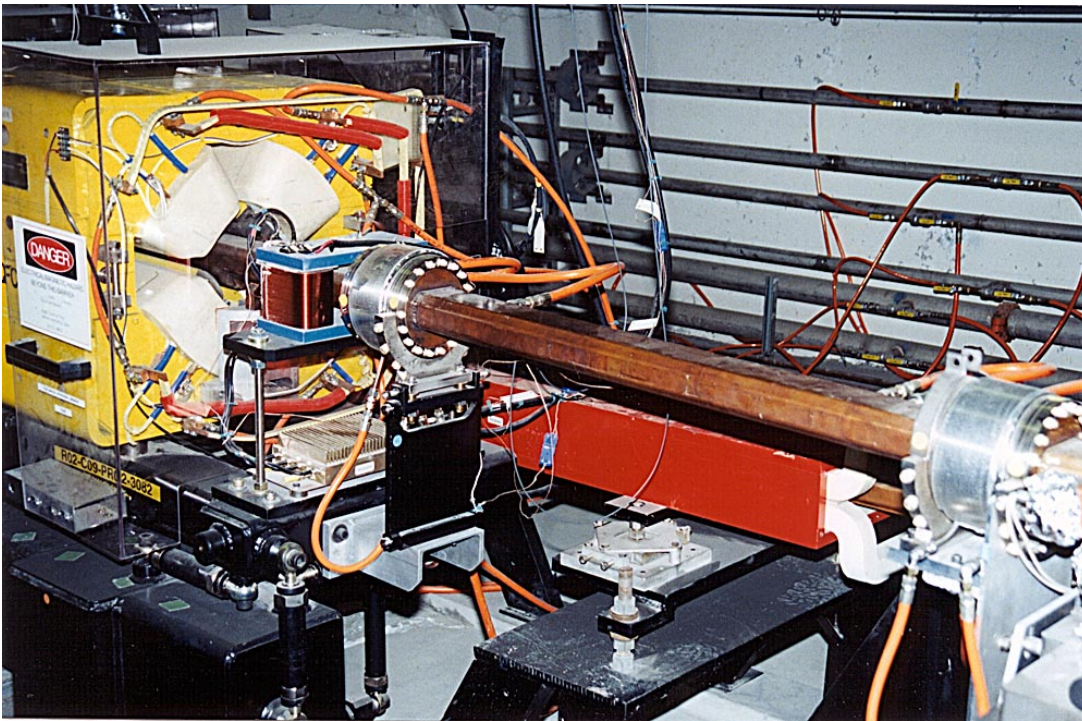


Unistrut bracing to shield wall may need to be temporarily removed to enable hoist access to collimator

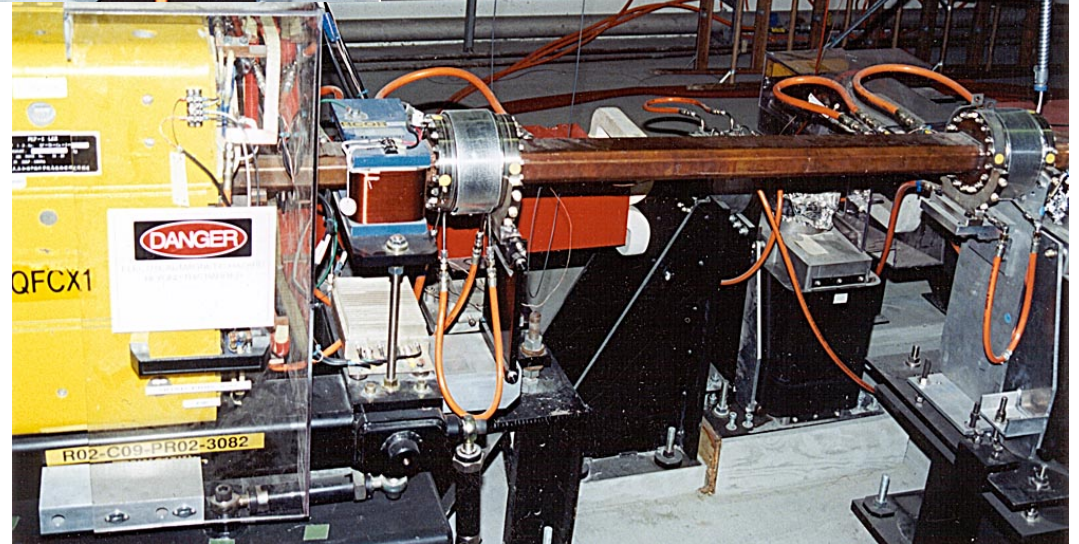
## **2) Remove Collimator 3076 (25m) and replace with original beam pipe.**

- Original beam pipe has been located in storage and can now be cleaned (HEPA vacuum and swab) and baked after solenoid windings have been removed.
- Corrector supports have not yet been located.
- Ion pump will be removed.
- Existing bellows pair will be reused.
- Shield wall should probably be left in place.





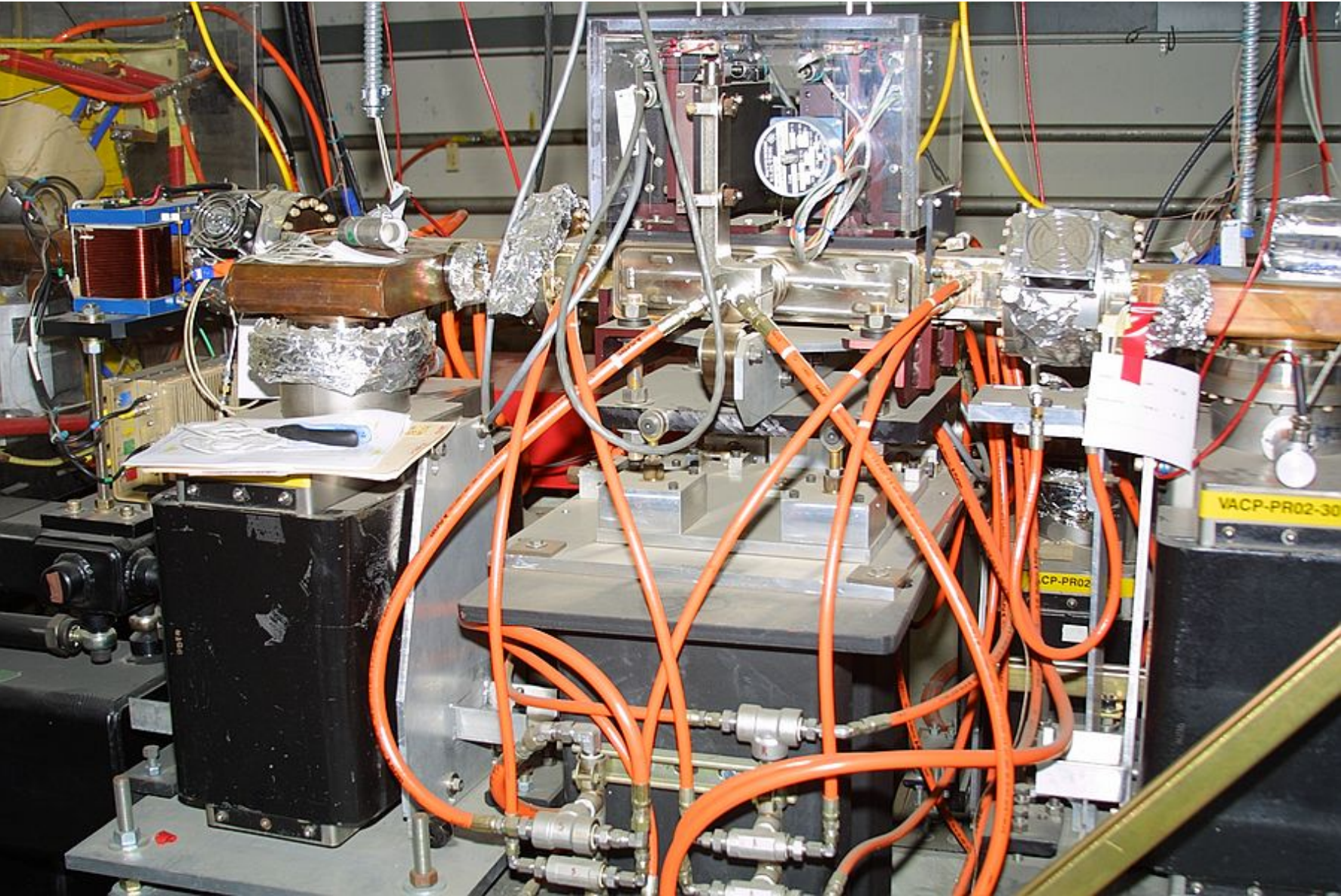
Chamber supports not yet located.



Chamber 3076 prior to collimator installation



# Coll 3076 and drift, June 2004



### **3) Move 12m Collimator (3043) to downstream LER.**

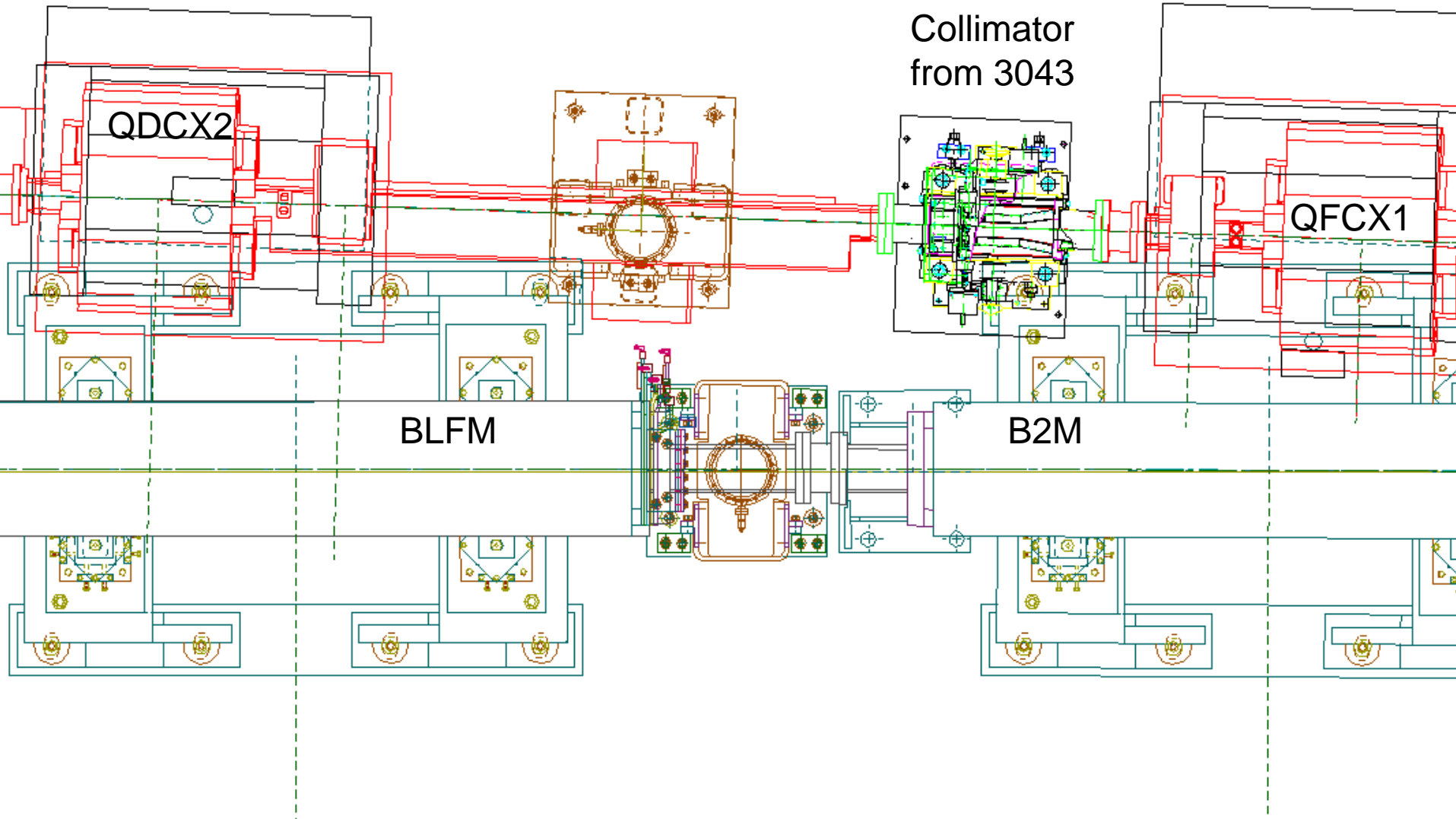
- Preliminary review:
- Collimator will fit at the 28.217m position. A new stand will be required to clear the B2 support stand and to accommodate the increased height (+11.86”).
- Requires a new drift tube with ion pump, NEG pump and possibly a new design of RF screen. Current screen is type ‘D’.

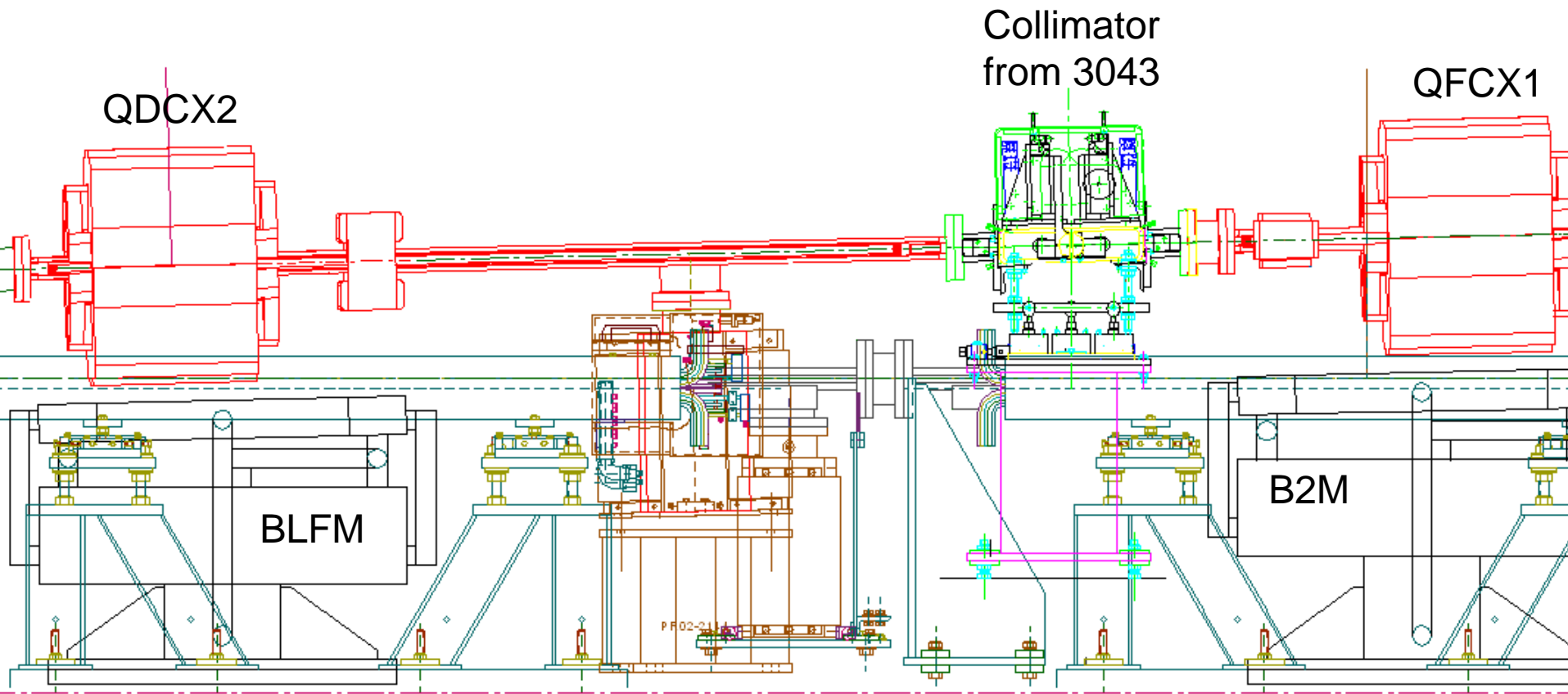


23.25m

28.2m

28.9m





PR02-2153