

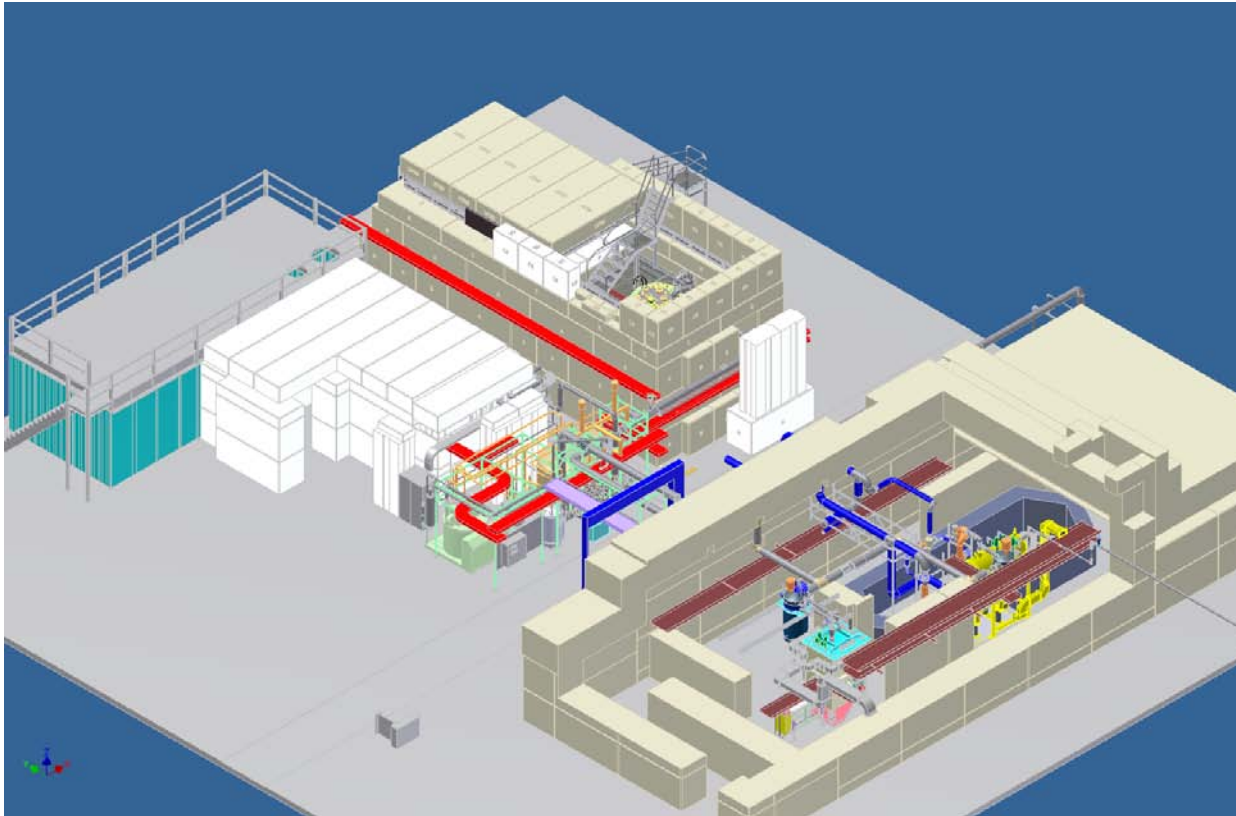
Take 5 for Safety

Status of ERL Areas
Proposed Rules for Be

Collider-Accelerator Department
5-8-12



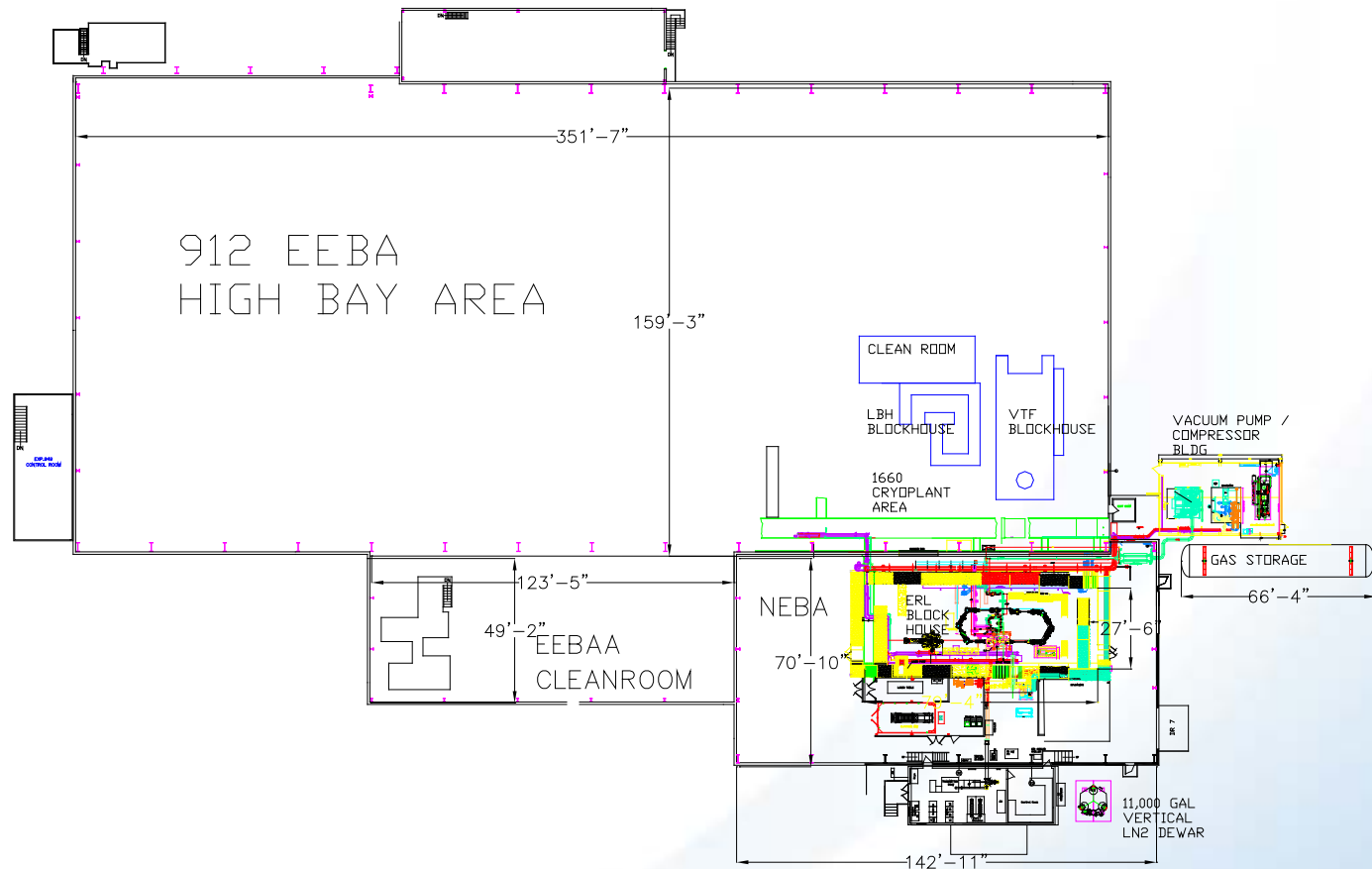
Status of ERL Areas



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- During this period the Access Control System is active
- Treat doors as you would for AGS or RHIC during a shutdown
- Do not block doors open

Status of ERL Areas



ODH Calculations – Worst Cases

- ERL block house (LN line break, 15% O₂, ODH 0)
- ERL compressor / pump room (He leak, 15% O₂, ODH 0)
- NEBA building (LN line break, 0% O₂, ODH 0 - takes 15 minutes to develop)
- EEBA building 912 high bay (LN line break, 13% O₂, ODH 0 - takes 100 minutes to develop)
- Large vertical test facility (LVTF) (LN line break, 18% O₂, ODH 0 - takes 15 minutes to develop)
- Small vertical test facility (SVTF) (He leak, 18% O₂, ODH 0 – fans always on upon entry)

Engineered Control for LN Tank

- Close valve outside of building at LN Dewar on ODH alarm
- Oxygen concentration in EEBA and NEBA will not drop below 18%
- Alarm inside the building
- Isolation valve
 - Air actuated extended stem valve
 - Fail close: air to open, spring close
 - Solenoid: signal to open and apply air to valve, fail close by spring: to dump air
 - Limit switch to confirm position

New Be Rules Proposed

- DOE will likely expand Be control areas and lower surface limits and airborne limits
- BNL has high sensitization rates (5 to 6%) compared to other DOE labs but sample size is small (30 employees, 200 job shoppers and construction workers); dermal exposure at BNL is likely route of exposure since sample includes many job shoppers who did not machine Be
- Sensitization in literature is known to be between 1% and 15% in those exposed to Be
- Sensitization is an allergic reaction to Be and includes cough, shortness of breath, fatigue, skin rash and night sweats
- Sensitized individuals may develop chronic Be disease (CBD) months to years after sensitization; CBD results in lung and heart damage
- Posting, training, housekeeping and blood testing will increase at BNL
- Some DOE labs test everyone's blood; thousands of workers
- If you know of Be tools still in the workplace, contact Joel Scott or Peter Cirnigliaro to arrange for removal