Weekly Report – week of April 25, 2011
Fabrication and Assembly of ERL hardware
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Cryogenics: The installation of the cryogenic transfer lines along with wiring of level and temperature sensors to support the ERL and VTF cryo refrigerator continues. A major cable pull took place this week and is nearing completion. This will tie the refrigerator to the control racks in the condo area.

Laser: Local logging software for phase lock control now operational. Design work on timing system and interface with low-level RF and diagnostics software continues.

FPC conditioning: The Navy FPC's were delivered to AES for disassembly. The FPC cart will be outfitted at AES with the BNL FPC's and returned to BNL next week for conditioning.

Photocathode: The half SS and half Moly sample was removed and looked at under the SEM. A ceramic break will be added to the sample holder to isolate and allow current readings of subsequent samples. The deposition system will have cesium and potassium sources added to allow for the development of multialkalide samples.

Gun Cryomodule: The gun and string assembly is in the crate ready to be shipped to J-Lab. A critical lift determination is still in review for lifting the gun string and its tooling in to a truck. The cathode transport cart drawings are in the signature loop.

PASS System: The installation and testing of the VTF PASS system awaits electrical power to be hooked-up. We have had discussions on the associated sweep procedure and how to interface this into the PASS system.

Mezzanine: The electricians are installing cable tray for electrical power needs. We are awaiting funding for the proposed clean room area under the mezzanine.

Large Grain Gun: Preparations are being made to measure the existing vertical test cathode. These measurements will be used for manufacturing a new copper VTF cathode. The required cables and hardware for the testing of the large grain cavity have been defined with PO's to follow. This week it was decided that a safety walkthrough will be required prior to testing of the large grain cavity in the LBH.

5-cell cavity/cryomodule: The paperwork continues for the G-5 test safety review. Clean room areas have been established for the reconfiguring of a couple of vacuum gauge trees that must be removed for the G-5 test. There was discussion on a 5/18 date for the next 5 cell cold run to test the LLRF feedback loop.

ERL injection line: Vacuum envelope is in preparation to final review, correction magnets are under design.

ERL Extraction line: Magnets are being fabricated, beam dump pressure vessel code compliance under evaluation, vacuum/instrumentation layout needs to be reviewed and finalized.

ERL Tech Support Area: The EEBA area is on hold due to funding issues. Design drawings and cost estimates have been completed. The BID packages have gone out for the construction of the enclosure and refurbishment of this area.

ERL Vacuum Support: Design work continues on detail design of ERL zig-zag injection beamline. Purge valve subassembly installation complete on injection side of 5-cell. Preparing for installation on extraction end of 5-cell. Time/labor to prepare clean room environment for beamline installations is significant.