Weekly Report – week of May 16, 2011
Fabrication and Assembly of ERL hardware
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Cryogenics: The installation of the cryogenic transfer lines continues. The wiring of refrigeration plant continues. The temperature and controls wiring is complete at the PLC end in the condo area, with wiring continuing at the plant end.

Laser: Laser operation problem traced to a spurious interlock signal in the cooling system, repair in progress. Preparations for thermal and alignment tests of cathode launch mirror. Design work on timing system and interface with low-level RF and diagnostics software continues. Simulation studies for 266 nm light production.

FPC conditioning: The FPC's for the ERL have the waveguides attached along with water cooling lines and temperature sensors. The MPS along with arc detectors, water flow and vacuum interlocks will be verified early next week. The testing of the FPC's will start early next week.

Photocathode: The ceramic break has been installed on the sample holder. The arm with the ceramic break has been installed in the deposition system. A pump down and extended bake will take place next week. A new stainless steel sample has been installed for evaluation of substrate material choice.

Gun Cryomodule: The gun and string assembly has been delivered to J-Lab for testing. The transport cart upgrade drawings are complete and the drawing package has been estimated and is in fabrication.

PASS System: The installation and testing of the VTF PASS system awaits electrical power to be hooked-up.

Mezzanine: Review and evaluations have begun on a response to an RFQ for the proposed clean room area under the mezzanine. The actual cost will determine if funding will be available. Preliminary discussions have taken place for the routing of water cooling lines for the vacuum furnace.

Large Grain Gun: A preliminary design for a plug for chemical processing of the large grain gun has been completed. The details of the design will be finalized in consultation with AES. Additional hardware has also been received this week including all components for the low-power amplifier to be used in the first-stage of gun testing. Discussion of low-level RF design and placement has also begun. SOW for the large grain cavity processing is being prepared.

5-cell cavity/cryomodule: The paperwork continues for the G-5 test safety review. A fixed date of June 28th and 29th has been set for the next 5 cell 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: The first article Beam Profile Monitor has been received. The vacuum system has been leak tested, room temperature RGA scanned, particulate tested and mechanically inspected in the clean room per Beam Components direction. Preparations are underway for bake out and elevated temperature RGA scan.