

Project Progress Summary

20 November 1990

No Project Progress Summary will be published on 4 December (during the week of the Semi-Annual Review).

Injector and Front End Test

- Personnel Safety System checked out and maintains a secure area for the FET.
- Planned QA was performed on FET cabling installation. Action to correct deficiencies is underway.
- Temperature control was successfully established on the capture section.
- The capture section high-power amplifier was run at 10 kW to dummy loads.
- Helium transfer lines were pressure tested.
- Helium phase separators were installed on quarter-cryomodule and cryomodule.
- Guard vacuum has been established on quarter-cryomodule and cryomodule.

WBS 1 - No report received.

WBS 2

Magnets:

- The Elma Engineering protest of the arc dipole coil contract was ruled not valid by the General Accounting Office. The timing allowed CEBAF to place the coil contract option for FY 91 on the agreed-on date.

Vacuum:

- The flange design that allows permanent adjustment of the Beam Position Monitor (BPM) to the axis of the beam tube that will be captured in the quadrupoles was successful in both an adjustment test and a leak test.

Stands:

- Bids for stands for all arc quadrupole girders were received and are in the evaluation stage.

System Integration:

- Nine song sheets were signed off, relating to enclosure, elements and low conductivity water (LCW) for the injection chicane through the north linac.

WBS 3

- Eight production high-order mode (HOM) filters were received last week (the color is natural iridite). Mounting brackets have been welded to the "Gray Ghost." HOM filters will be mounted this week. Each filter must be custom fitted to its window.
- Sixty-six klystrons have now been received.
- Circulators have been installed on the first eight-seater HPA.
- The first 16 directional couplers have been tested and meet specs. The first 16 coaxial to waveguide transitions still need to be tested, including high-power testing.
- The procurement order for all remaining LVDT (linear variable differential transformer) circuit boards was placed.
- The 100-kV high-voltage power supply is calibrated and functioning. No-load ripple looks good at 14 V peak to peak at 60 Hz (down from 100 V). Now waiting to check ripple under loaded conditions.
- The capture heater control has been completed and was run in the temperature mode.
- TACL software for capture section HPA control was completed and tested Friday; over 10 kW was run into a short.
- A hardware change solved the emulator logic bug. Testing of the complete embedded code was continued over the weekend, with a plan to run the capture section 19 November.

WBS 4

- Sent Rev. C trim system regulator board art work to RMS for manufacture.

- Completed a four-part series of section drawings for the north linac which show component and rack layouts. These drawings are available on a virtual disk under user name REFBASE 1 (refer to TN 251 for access information).
- Received a specialized impedance testing instrument which allows measurement of ground impedances without disconnecting the ground cabling. The instrument will be used to develop an "as-measured" database for various ground points in the accelerator.

WBS 5

Safety:

- FET Personnel Safety System is operational, with functional tests and system accreditation performed.
- FET beam-loss monitor system 90% operational.

Diagnostics:

- Two additional viewers being installed on injector.

WBS 6

- Bid dates for the Hall A dipole and the Hall C dipole were extended to 3 December and 10 December, respectively.

WBS 7

- CHL compressor oil coolers shipped 14 November to manufacturer. Minimum of four due back 26 November.
- CHL motor/compressor couplings inspected 15 November. Several require replacement, which should be complete by 26 November.
- Welding outer jacket of the He rupture from dewar to 4-K cold box. U-tubes for FET being fabricated.
- Pressure test of supply transfer line and GHe cross connect from CHL to CTF complete on 17 November.
- Water isolation valves have been replaced at CHL. Tower cleaned of corrosives and is operating.
- Section piping revision of the K-15 complete. Installation of phase separators and heaters for FET in tunnel underway.

WBS 8

Accelerator Enclosure:

- Completed joint punch list inspections on remaining facilities.
- BOD on the remaining facilities was taken effective 16 November.

End Stations:

- Completed concrete repair work on beam tunnel A.
- Continued repair work on beam tunnel C.
- Forming walls and roof for structural concrete in beam dump B.
- Continued installing steel reinforcing and forms for the walls in Hall A.
- Completed waterproofing the counting house lower level, and began backfilling.
- Connected the under-slab drainage systems from Halls A and C to the counting house sump and began installing the pumps.
- Started excavating in Hall B area in preparation for installing the tagged photon beam dump and the floor slab.

EEL Building:

- The subcontractor continued correcting punch list items.

Support Services

- Machine Shop move complete; 95% of machines from Forestry building shop have been re-connected.
- Modified all HOM filters: machined elbows and modified mounting tabs. Welded tabs to first cryomodule and sized HOM filters for each window. Installation of HOM filters was to be done 19 November.
- FET model moved from Trailer City; re-assembly started in CEBAF Center.