

P/A 2/2 1991

PROJECT PROGRESS SUMMARY

February 20, 1991

WBS 7

- This weekend we operated at 4 K to the tunnel, incorporating a two-turbine liquid nitrogen cycle.
- On Tuesday, 19 February, we started the warm vacuum pump and went to 2 K in the tunnel. By 4 p.m., both the cryomodule and the quarter-cryomodule were at 2 K.

WBS 1

- Cavity testing continues. Pair assembly will resume this week when HOM loads are received.
- Cooled down the quarter-cryomodule and the full cryomodule in the tunnel in preparation for the FET. They were pumped down to 2 K on Tuesday, 19 February. Checkout and commissioning of the quarter-cryomodule begins this week.
- Three cryounits have vacuum leaks in the cavity pair which are being localized and repaired.
- Nine HOM loads with heaters are in various stages of manufacture and testing. Four loads will be delivered today, with an additional four delivered by the end of this week. Testing continues on new load materials.
- Two more windows have been delivered (#43 and #44). Twelve windows have been electron-beam welded and are being titanium dioxide sputtered and rf tested.

WBS 2

Magnets

- The final review of the two arc sextupoles' designs and specifications was held.

Stands:

- The designs for the west arc dipole stands were signed off.
- The magnet installation device was received.

Vacuum:

- The contract for the dipole vacuum tubes was placed.
- Tests on the vacuum pumps and power supplies for the arcs verified that they pump well within specifications.

WBS 3

RF Power:

- The last four RF circulators shipped from FCI were damaged in transit. As a result the next four HPAs from ETM will be short two circulators, which will have to be field installed here at CEBAF. FCI is looking at a better packaging scheme to prevent damage in the future.
- A sample of the LCW contamination found in the rotameters was sent for analysis.

RF Controls:

- M. Bickley will be working with the RF software group. His first task will be to help produce flow charts for all signals.
- We now have 11 test control modules.

Master Oscillator Distribution:

- We have decided to use two separate coaxial lines to distribute the 1427 and 70 MHz signals. The cost of dual-frequency couplers was higher than expected, and we will save some cost by eliminating the diplexers.

WBS 4

- Completed primary (1 1/4-in.) conduit in south linac for safety system.
- Started AC wiring in WBS 4 EEL tech shop.
- South linac cable tray installation is scheduled to start 19 February.
- Turned FET TRIM rack back on in injector service building.

WBS 5

RF Controls:

- Microprocessor interrupt coding in progress for cryomodule interlocks.
- Average response time 40 microseconds.
- Completing TACL logic work for quarter-cryomodule (1-2 days).
- Calibration table download software in debug.

CHL Controls: Operational with following work required:

- Revise save/get settings.
- Add heater control.
- CHL to CTF connection.

Injector Controls:

- Adding software for harps and BPMs.
- All magnet systems software installed; undergoing tests.

General Controls Software:

- First release of documentation software due 1 March.
- Logic plot software operational (runs logic to E size plots; also dumps logic to EGS system for annotation, assigning drawing numbers, etc.).
- Group training will be held later this week for system debug/maintenance.
- Code control system developed for logic and display files.

Diagnostics:

- Beam current monitor data logger complete.
- Began pulling north linac diagnostic cables.

Safety:

- Received first half of south linac ODH monitors.

WBS 6

- Hall C quadrupole vendor conference to be held 4 March.

WBS 8

End Station Underground Package:

- Continued backfilling beam lines A and C and around the counting house, and started backfilling on the south side of Hall C as weather permitted.
- Continued placing concrete walls in Hall A. Eleven of twelve wall sections are complete to elevation 27.5' and ten sections are complete to elevation 45.5'.
- There is no change in the concrete walls in Hall C from last week. Nine of ten sections are complete to elevation 24.5'.
- Completed partition walls where truck access tunnels enter halls A and C.
- Started placing concrete wall sections for truck access tunnel A.

End Station Above Ground Package:

- Assessing qualifications of low bidder.

Support Services

Machine Shop:

- New harding lathe acquired.
- Safety shields for laboratory lathes and mills have been received and will be distributed next week.
- Activity equipment for BEAMS (elementary school education program at CEBAF) is complete.

Stockroom:

- Withdrawal activity for the week: \$29,104.08.
- Withdrawal activity for the month: \$75,461.95.
- Thirty-three new items added to an inventory of 8,290 items.

Education

One 5th grade class from Palmer Elementary School will be at CEBAF all next week doing their regular schoolwork and participating in special science and math activities developed and conducted by CEBAF staff. This is the first pilot class for the BEAMS (Becoming Enthusiastic About Math and Science) partnership with Newport News Public Schools. Staff are welcome to visit the classroom (L102/104 in CEBAF Center).