

PROJECT PROGRESS SUMMARY

June 11, 1991

The Project Progress Summary will be published next week according to the usual schedule, but will not be published the week of the Semi-Annual Review (June 24-28). The Semi-Annual will be held in VARC rooms 53/55 from Tuesday through Thursday of that week.

FET Operations

- The second cryomodule was operated to accelerate beam. With six cavities in the first cryomodule and seven cavities in the second, 38 MeV was reached.
- RF continues to install additional control modules to permit 45 MeV.

WBS 1

- Delivered four more loads to the cavity assembly group. A ceramics shipment is due by the end of this week. New materials have been received and are being evaluated for unheated load production use. The purification furnace has been operated empty and is ready to go for brazing loads.
- The brazing furnace has been cleaned and is back in operation. The backup air and cooling water sources still need to be installed.
- Six RF windows have completed temperature cycling and are ready for TiO₂ coating. Two will be done Monday afternoon and RF tested Tuesday. The others will be done at the rate of two per day this week. Five more windows will be electron-beam welded Tuesday.
- Results from lapped flange and from chemically polished flange tests confirmed that lapped windows will frequently leak and that chemically polished flange windows will not. Chemical polishing is now required as the last step to avoid the problem.
- Two cavity pairs were assembled last week. IA079/IA082 exceeded the design criteria, but has a leak. This pair has chemically polished flanges and lapped HOM load flanges.
- Cryomodule traveller #7 is cold and under test. All vacuums are excellent. The Q's will be measured today; initial measurements show the Q's are at design value.
- A cryo unit for cryomodule traveller #8 is being aligned and connected to the end can.

WBS 2

Magnets:

- The first five of sixteen wide-pole, two-meter arc dipoles (BRs) were assembled at Process Equipment Co.
- The lamination material for the extraction quadrupoles (QCs) was received and its chemistry accepted.

Stands:

- The installation of the tops and bases for stands in the east arc neared completion, the alignment group started leveling them into position, and stand installation started.

Vacuum:

- An additional lot of 50 vacuum pumps was received for a total of 130 out of 430 and an additional 99 bellows were received for a total of 275 out of 1520.

Water Cooling Systems:

- The contract for the low-conductivity water (LCW) heater pipes for the linac service buildings was placed with McKenzie Construction Corporation.

WBS 3

RF Power:

- Varian representatives were on site last Monday and Tuesday and proposed higher heater voltage on all production klystrons as a solution to the low-emission problem we have observed. Discussions continued at Varian later last week.
- Klystrons 144 through 149 were received.

Fabrication/Installation:

- First-article ductwork for module cooling was installed Friday. The rack is being QA'd before moving to the north linac building.

RF Controls:

- Two final-design CPU boards have been partially tested.
- 345 IF boards are due June 17.
- Assembled buffer, midplane and backplane boards are being received and QA'd.

WBS 4

- Installed eighth trim rack (located in service building E1).
- Installed rack bases in south linac service building for WBS 7.
- Finished conduit runs for security system signal leads in south access building E6.
- Installed rack base in service building W1 for security system.

WBS 5 - No report received.

WBS 6

- The Hall C dipole contract, coil portion, will go to DOE for approval this week; the iron portion will go to DOE next week. The User Group meeting is happening at CEBAF Tuesday and Wednesday.

WBS 7

- One return transfer line section is in place in the north linac, and a special section is in place in the southwest quadrant.
- The CHL is operating to support FET, and the CTF is operating to support cryomodule and vertical dewar testing.
- Most of the cryo group is at the Cryogenic Engineering Conference in Huntsville. The group is presenting two papers, one on the CHL and one on transfer lines.

WBS 8

- Preparing for phase 1 (of 2 phases) post-tensioning of Hall A concrete dome. Wires wrapped around the dome's base under tension will provide structural support. This activity should start this week.
- The first-lift walls on Hall B are complete, two second-lift pours remain, and no third-lift pours have yet been made.
- Concreting continues on the walls and roof slab for truck access tunnel B. The walls are about 95%, and the roof is about 80% complete.
- Backfilling continues around Halls A, B, C and the truck access tunnels.

Support Services

Machine Shop:

- Completed six alignment cartridges for slant-view target stand inspection (WBS 2).
- Began fabrication of a BPM inspection fixture for WBS 5.
- Completed a "tow-bar" assembly for WBS 1.
- The second 180-degree bend for the recirculator has been assembled.

Stockroom:

- Weekly activity - \$19,048.04.
- Monthly activity - \$26,417.13.

External Fabrication:

- Sent fabrication jobs for energy recovery unit to CEBAF Machine Shop.
- Breaker lockout bid has been sent out to three vendors (WBS 4).
- HMS detector plates are out for quotes and are due this Thursday (WBS 6).

Training

- Forklift Certification (25 June, repeated 23 July) and Incidental Crane Operator Training (27 June, repeated 25 July) last from 8:30 to 5:00, not 8:30 to noon as previously announced.
- Personnel's June/July Training Opportunities Bulletin is available.