

PM. 7.2

Project Progress Summary

13 November 1990

Injector and Front End Test

- No report received: Progress covered under specific systems.

WBS 1

- Two single-cell cavities have been electron-beam welded.
- The old C' pair (IP008/IP009) has been tested with excellent results. CE007/CE008 pair also tested fine. They were to be transferred to the cryounit assembly area 12 November.
- IA014/IA015 had the dish valve assembly replaced and was to be tested 12 and 13 November.
- The Production Chem Room is in commissioning, prior to final checkout to confirm safe operability.
- Two cavity pairs for cryomodule #3 are in their helium vessels; other pairs being delivered will go into helium vessels this week.
- Cryomodule #2 (in the test cave) is being warmed up to room temperature because the initial cooldown was too slow.
- The batch of 12 windows has been RF tested and will be transferred to the cavity assembly area this week.
- Routine testing of HOM loads revealed a potential problem with their power absorption capability at 2K. The problem is being verified and analyzed through further testing. Production assembly and testing continues on cryomodules #2 and #3, which contain HOM loads like the one that exhibited the potential problem, as their performance is acceptable for (and can be verified in) the Front End Test.

WBS 2

FET:

- The vacuum pipe has been installed through the second cryomodule; awaiting the 45-MeV spectrometer components to complete installation.
- Bolt patterns for the 45-MeV spectrometer and dumps were located.

Stands:

- The contract for all the adjustment cartridges for stands was let at substantially below cost book estimates.

Vacuum:

- The test centering of a captured beam pipe in a quadrupole was found acceptable for both centering and repeatability. A flange design is being tested this week that, if proven successful, will ensure perpendicularity to center a beam position monitor.

Alignment:

- A simulation of an arc quadrupole alignment scheme was performed and analysis of results is in process.

WBS 3

RF Controls:

- A full FET complement of most types of control boards is now on hand. We are starting to test and calibrate them in preparation for installation in the control modules.

- We are having problems with the INTEL "C" compiler (for the embedded microprocessor code). We have isolated the fault to about ten lines of code that use a floating point array. The previous code used for the injector test did not use FP arrays. INTEL and our software people are working closely and intensely to bring this to a quick resolution.

RF Power:

- We now have a total of 63 klystrons and 46 circulators on hand at CEBAF.
- The sixteen couplers and transitions from Unique Systems are through customs and now at CEBAF. We started testing the units last Friday.
- Work towards the full test of the capture section 10-kW HPA is almost complete. We will be ready for power testing as soon as we have an operating control module.

WBS 4

- Successfully tested two Rev. C Trim System regulator boards under load for several days.
- E-1 service building transformer and breaker panel installation is complete.
- The trim rack assembly operation was moved from Blue Crab Road to the EEL building on Saturday, 10 November.

WBS 5

Safety:

- FET and north linac ODH system fully operational.
- Final checkout of FET Personnel Safety System has begun.
- FET FSD (fast shutdown) system is installed and operational.
- All boundary radiation monitors delivered.

Diagnostics:

- 50-ohm line driver chassis is complete.
- Faraday cup is complete (vacuum leak discovered).
- Chopper aperture stepper motor ready for test.
- Debugging chopper software.
- INTEL microprocessor experiencing floating point errors when accessing arrays; working problem with INTEL (see WBS 3 report).

WBS 6

- No report received.

WBS 7

- No report received.

WBS 8

Accelerator Enclosure:

- Continued joint punch list inspections on facilities not yet accepted by CEBAF.

End Stations:

- Continued repair work on beam tunnels A and C.
- Completed the structural slab on grade in beam dump B.
- Continued installing steel reinforcing and forms for the walls in Hall A.
- Continued waterproofing the counting house and installed cableway pipes.
- Received the 120-in. pipe for the tagged photon beam dump in Hall B.

EEL Building:

- The subcontractor continued correcting punch list items.

Support Services

Machine Shop:

- Move 70% complete. Completion expected early this week. No significant work interruption.
- Completed waveguide elbows for WBS 1.
- Completed hardware for HOM filter brackets (WBS 3).

Installation and Integration

- Systems Integration Meeting was held today. Eleven song sheets were signed off by WBS 2, 4, 5, 9, and Alignment Group.

Tunnel ODH Status

- Due to heat exchanger problems at the CHL, the tunnel and service buildings are not yet ODH classified areas. Staff will be alerted at least a week before ODH classification takes effect.

Material Services

- Effective Monday, 12 November, the Material Services group ceased operations in the VARC building and commenced operations in the EEL building. Services provided in the EEL are: property control, shipping and receiving, mail distribution, central stores distribution.
- Airborne Express pickup points for general correspondence will remain at CEBAF Center and the VARC building.
- Questions can be directed to the Material Services staff at the following extensions: Teresa Danforth, 7364; Joan Davis, 7580; Estelle Seeley, 7581.

Computer Center

- A DEC Ultrix/RISC 5000, CEBAF9, is now up and running applications.
- The requisition and receive log Ingres databases have been moved to CEBAF4.
- The local area network (LAN)-has been extended to the EEL building.