

# Project Progress Summary

18 December 1990

**Special Note on Safety:** As a result of the "lesson learned" from a recent accident, hardhats with faceshields are now available in the stockroom.

**QA Peer Review:** The SURA-initiated Quality Assurance Peer Review was held December 13 and 14. As a preliminary conclusion, the panel stated that CEBAF's approach is sound and is the basis for a good lab QA plan.

**Next Publication Date:** The *Project Progress Summary* will be published next on Tuesday, 8 January, with input deadline at close of business on Monday, 7 January.

## Injector and Front End Test

- No report received.

## WBS 1

- Interatom representatives visited CEBAF last week to discuss the cavity contract.
- Received 12 cavities from Interatom on 17 December. This is the November shipment, bringing the number of production cavities to 56.
- A cavity pair was successfully treated in the on-line chem room for the first time. Both cavities exceeded 10 MV/m with  $Q$ 's approximately  $10^{10}$ . The chemical treatment facility area of the off-line chem room is now tagged "out of service."
- Finished 30 HOM elbows and welded 90 transmission probes at PTR (vendor).
- There are two leaks on the cryomodule in the test cave. A backing flange with toe clamps will be placed on each HOM load on the elbow. This fix will not require reprocessing the cavities. All cavity pairs assembled to date will need this fix. The injector quarter-cryomodule will eventually require this repair.
- Brazed five HOM loads that have copper blocks brazed into a 3/4-in. stainless steel backing flange. Expect to make 15 by the end of the week. They are being thermally shocked now. Looking for an alternative material.
- Forty RF windows have been assembled to date.

## WBS 2

### Magnets:

- Except for a few minor adjustments, the first five assemblies of the BE (1-m arc) dipoles passed inspection at the Process Equipment plant.
- A simplified version of the QB quadrupole was signed off as ready for bid.

### Survey and Alignment:

- The survey of penetrations in the south linac shows that they are generally in tolerance.

## WBS 3

### RF Power Group:

- Trip to Gamma Microwave was informative. They can probably catch up on production, but we must watch them closely.
- Tested DC crowbar modifications and new current transformers for trigger. They performed properly.

#### RF Controls Group:

- Held in-house preliminary design review of the RF reference distribution system.
- A production RF control module is now operational, although there is still a lot of software work before the system is final.
- Arc and IR detector boards are assembled and have been tested.
- We have some preliminary data back on RF master oscillator specification. It looks like the system can be built within budget.

#### Installation Group:

- Richard Dawes and Julian Gordon visited the fabrication and installation group at the Advanced Light Source at LBL. They came home with a lot of data and some good ideas.

#### WBS 4

- Completed installation of "Ice Ball Melter" equipment on the helium vent circuit in injector area.
- Received the second four bulk power supplies for trim system. One of them has been on test for about a week.
- Toured south linac service building and generated a punch list.
- Completed accelerator service building section drawings through south linac service building.
- Identified specific north linac cable pulls and their zones preparatory to scheduling the tasks and estimating the manpower.

#### WBS 5

##### Diagnostics:

- Fourteen arc BPM CAMAC modules received from EDL. Modules are currently undergoing testing.

##### Safety:

- Final audit of FET safety system will be performed this week.

##### FET Software:

- Basic system operable.

#### WBS 7

- Female rotor cover removed on all skids and no evidence of wearing metal identified.
- Four compressor/motor alignments complete, with two remaining.
- Howden compressor skids being vacuum pumped for cleanup.
- I&C for the 4-K cold box 90% complete.
- Two sections of the supply transfer lines are in the south linac.
- The 20-K and 80-K charcoal absorbers in the 4-K cold box are being regenerated.
- All three return heaters and phase separators are complete.
- All U-tubes for the 4-K run are installed.
- He leak in the 4-K cold box is being hunted by CVI.
- WBS 7 should be out of the north linac this week.

## WBS 8

### Accelerator Enclosure:

- Continued correcting punch list items.
- Testing of LCW equipment and controls in the south access building is essentially complete. The subcontractor is now completing and calibrating the controls.

### End Stations:

- The change request (CR 190) to construct reinforced concrete end station truck access tunnels rather than multiple-plate access tunnels has been approved.
- Continued waterproofing beam tunnel C. Backfilling as weather permits.
- Continued placing concrete walls in Hall A.
- Continued working on the dewatering pumping system in the lower level of the counting house.
- Continued installing steel reinforcement and constructing forms for Hall C walls.
- Excavation for Hall B floor slab is complete.
- Installation of the tagged photon beam dump is complete.
- Continued backfilling counting house and beam line A rework area as weather permits.

### Systems Integration and Installation

- Systems Integration Meeting was held 14 December.
- Cable requirements for the north linac and north linac service building are due from all systems to WBS 4 by 15 January.

### Training

-CEBAF Safety Awareness Seminar: A special safety seminar will be held in the auditorium on Tuesday, 8 January, from 8:30 to 11:30 a.m. Topics are electrical safety, portable power tool safety, general safety, and an overview of CEBAF's EH&S program. Further details are available from the EH&S office at extension 7007.

-See the current *Training Opportunities Bulletin* from Personnel for details about:

- New Employee Orientation on 8 January.
- CEBAF Safety Orientation on 9 January, with separate sessions on radiation protection, emergency management/hazard communication, ODH, and lock and tag procedures.
- Procedures for Contracting Officer's Technical Representative on 14 January.

### Accelerator Division Support Services

#### Machine Shop:

- Several machines still need hookup but should be complete by January.
- Program capability will be available in January for up-loading and down-loading of numerical control machining programs.

#### Stockroom:

- Now in stock are hardhats with faceshields.
- New wire racks have been assembled and loaded
- Material handling moved sixty 15-ft waveguides, sixteen circulators, and performed inventory for WBS 3.

**External Fabrication:**

- Weld fixture for WBS 5 has been received.
- Twelve plenums have been modified for the RF crates.
- Horizontal waveguide runs are being assembled at Blue Crab.

**Project Schedule Distribution:** A 1991 version of the wall-calendar-style project schedule will be distributed by early January to replace last year's (which included a page for January 1991).