

PM 1, 2 1991

PROJECT PROGRESS SUMMARY

January 29, 1991

Multidisciplinary Appraisal

DOE Oak Ridge Operations will complete its EH&S and QA appraisal of CEBAF this week. Specific areas being covered this week are as follows, with the number of reviewers in parentheses after each topic:

Environment (3)
Health Physics (1)
Quality Assurance (2)

After the first week of the appraisal, which focused on industrial hygiene, industrial and construction safety, fire protection, and facility safety, there were no Priority I (most serious) findings, eight Priority II, and three Priority III findings. Priority II findings addressed (1) monitoring of personnel exposures to workplace hazards; (2) the Lock and Tag program; (3) accident reporting; (4) safety deficiency corrective action tracking; (5) continuous surveillance of fire alarm panels; (6) means-of-egress obstruction by the front end model in CEBAF Center; (7) absence of a formal fire protection system impairment program. Priority III findings addressed (1) temporary inactivation of the tunnel sprinkler system during fall 1990; (2) the schedule for preparation, review, and approval of Final Safety Analysis Reports and Operational Safety Requirements needed prior to machine operation for physics; and (3) the lack of a formal (i.e., written) Facility Safety Program. The reviewers are preparing their formal reports.

QUALITY ASSURANCE BULLETIN:

Substandard and Counterfeit Parts

Several DOE labs, as well as DOD, NASA, and NRC facilities, have received substandard and counterfeit parts which were installed and put in service before their unsatisfactory characteristics were discovered. In the case of counterfeit bolts, the head markings on the bolts indicated the bolts were a specific grade. Chemical analysis and destructive testing proved the bolts did not meet specification. DOE has investigated these incidents, and a copy of the report file is in the library under the title "Counterfeit Parts."

The lesson to be learned is to be alert and suspicious when you inspect purchased material, realizing that there are unscrupulous companies and individuals trying to take advantage of a trusting public.

If you have problems in this regard, please contact your Division Quality Assurance Officer or Tom Hassler.

WBS 1

- Finished 28 electron-beam welder programs (involving 36 steps) to weld elbows. Welding is finished on 6 elbows.
- The niobium purification furnace is installed. The manufacturer will check it out the second week of February.
- Repair work on the HOM flanges continues on the cryounits and cryomodule.
- Delivered 4 HOM loads with heaters for cavity pair assembly.
- The material being evaluated for HOM loads (aluminum nitride molybdenum sample at 15%) is good.
- Twenty-four windows are ready for welding.

Build and commission CEBAF within cost and on schedule to meet performance objectives.

WBS 2

Magnets:

- Fourteen 1-m arc dipoles were received for a total of 24 on hand out of the 50 required.

System Integration:

- The song sheets for the tunnel and the elements of the first 22° of the east arc were presented to Project Management for approval by other WBS representatives.

WBS 3

RF Power:

- Coax cable PR and specification to Procurement for purchase of all remaining coaxial cable assemblies.
- Ninety-one Varian klystrons have now been received at CEBAF. We are now rebuilding the klystron test stand to make it easier to use.

WBS 4

- Installed additional 4"x4" box duct for the ice ball melter in the injector area.
- Started bid evaluation process for box power supply solicitation.
- Have received 33 bulk power supplies and successfully tested 19. Six failed acceptance testing and were sent back to the vendor. Eight have not been tested yet. Vendor has been contacted and is working fixes.
- Two etched circuit boards to be loaded for trim regulator final-article testing were due at the vendor yesterday.

WBS 5

Safety:

- ODH equipment for south linac ordered.
- FET safety system signed over to the injector group.
- Prototype controlled-area radiation monitor received.

Diagnostics:

- All cabling for north linac BPMs received.
- Cable layouts for north linac diagnostics complete.
- North linac BPM tunnel electronics ordered.

WBS 6

- Technical review of the bids for the Hall C dipole is in progress.
- The bidders' conference for the Hall C quadrupole is scheduled for 4 March 1991.
- The contract for the Hall B torus is at Oak Ridge for approval.

WBS 7

- Completed the compressor test on Saturday, 26 January.
- Started vacuum pumping the 4-K cold box, LHe dewars, and the FET piping. The 4-K system and the dewars have been backfilled once thus far. The FET piping is at 1.75 Torr after the first pumpdown.
- The 30,000-gallon dewar was under leak test from Saturday to Sunday. The results must be analyzed.
- Computer testing was completed over the weekend at the CHL.

WBS 8

Accelerator Enclosure:

- Continued correcting punch list items; 95% of the original list has been corrected.

End Stations:

- Continued backfilling beam line C as weather permitted.
- Continued placing concrete walls in Hall A. Ten sections are now complete to elevation 27'-6" and one to elevation 45'-6".
- Continued placing concrete walls in Hall C. Seven sections are complete to elevation 24'-6".
- Completed the floor slab for Hall B.
- Continued backfilling counting house and beam line A rework area as weather permitted.
- End station above ground package bids are due 12 February 1991.

Accelerator Division Support Services

Machine Shop:

- Evaluated satellite machinery for safety requirements. Items required have been ordered.
- New South Bend milling machine has been acquired and is operational.
- Two sets of BPM test fixtures completed and delivered to WBS 5.

External Fabrication:

- Initiated orders for various components for the construction of viewers and harps (WBS 5).
- Ordered 160 blower housing doors for WBS 4.
- Inspection of crate and module assemblies in progress (WBS 3).

Training

- A new training bulletin covering February and March is being distributed. Some of the courses it details are:

CEBAF Safety Orientation	6 February (repeated on 6 March)
Radiation Protection	8:30 - 9:25
Emergency Mgmt. & Hazard Comm.	9:30 - 10:25
ODH	10:30 - 11:10
Lock and Tag	11:15 - noon
Procurement User Orientation	20 February, 9:00 - 11:00
Sole Source Procurement	22 March, 9:00 - 10:30
Forklift Certification	12 February, 8:30 - 10:30
Crane Operator	14 February, 8:30 - 10:30
Basic Radiological Health	11 February, 8:30 - 11:30
ME CAD System Update	25 February, 9:30 - 11:30