MARK IV REDESIGN COMMITTEE
MINUTES OF MEETING NO. 13
April 21, 1960


The minutes for meeting Nos 11 and 12 were distributed and accepted as written.

Discussion
The discussion centered around the Mark IV schedule and was accepted as shown in inclosures one and two with this copy of the minutes. In general the present schedule is moved back by three weeks. The "Operating Schedule for Mark IV Accelerator" is a guide to scheduling the people for the 7/2 retest period.

The new Zeolyte trap is in operation at the present time. The zeolyte required a twelve hour initial bake and pressure was in the $10^{-8}$ scale within a 24 hour period. After the trap had been in operation for one week the pressure was $2 \times 10^{-8}$ and slowly falling.

The experimental wave guide valve has matched out at a VSWR of 1.01 - 1.02 and will be modified for test in Jasberg's "rat race".

The "key slot" dimpled water jacket proposed by Colberg Boat Works was discussed and a sample jacket made by Colberg was shown.

Decisions
To change the schedule for MK IV changeover as shown in attachment 1.

To move the accelerator position toward the "gun end" of the accelerator by 6" in order to add available space before the 10' magnet.

To consider using the dimpled water jacket proposed by Colberg.
MK - IV PROGRAM

To April 30, 1960

K - 1 Station klystron (Mk III unit) installed.
Status;
13 Mw at sat. drive & 300 kv beam pulse.
Window on vac protection.
Phase shift.
2 micro.sec period: 10 excursion.
mid 1 micro.sec period: 2 excursion.
Spark gap serviced.

April 26; Change to marcol oil in mod.
Install pulse curr. transf.

K - 2 Station klystron in place.
Status;
Window on vac. protection.
Spark gap serviced.

April 25; Process tube.
April 26; Completion of adjust PFN.
April 27; Install pulse curr. transf.

Accel.
Status; 
Vac. gage # 1 reads 5 x 10 mm.
Accel alignment checked ± 1/16".

April 26; Install rem. op. collimator
April 27; Check defl. curr. regulator
Set-up magnet degaussing.
Accel oper. check.

Electron Gun

April 28; Remove Ta gun and assembly.
Remove gun pulse transformer.
Remove grid & injection trigger cables.
Remove focus coil from pre-buncher.

April 29; Install gun pulse transformer.
Install gun vac. system.
Install oxide gun assembly.
Install ac power supply for gun pulser.
April 30: Install gun pulser on top of trench.
Connect heater, grid pulse and injection pulse cables.
Connect grid & injection pulse monitor cables to console.
Convert & process oxide gun.

May 2: Accel. & Gun oper. check.

May 2 - May 20: Retest pi/2 sections.
Measurements to be made with and without pre-buncher.
1. Behavior of accelerator tubes under rf power.
2. Spectra Test & Phasing.
3. Loading tests.
4. Current transmission tests.
5. Re-radiation experiments.
6. Reactance loading.
7. Beam break-up tests.

May 23 - May 26: Install 2 pi/3 sections.

May 30 - June 20: Test 2 pi/3 sections.

June 20 - Aug. 15: MK-IV Changeover.

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