NO. 12

COMMISSIONING FEB A STUDIES

Blumberg

FRIDAY, APRIL 20, 1973
0600 – 1400

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OBJECTIVE: 2nd ATTEMPT TO EXTRACT BEAM.

(1). ACTUAL BEAM TIME: 1230 → 1420 WITH MANY INTERRUPTIONS FROM LINAC. ABOUT ½ HOUR OF GOOD TIME. ALL COMPONENTS CAME ON AT NOMINAL OPERATING VALUES AND PULSED SATISFACTORILY. NOTED A RANDOM JUMP OF 6 μSEC IN TIMING OF C15 BEAM KICKER WHICH APPEARED TO INFLUENCE OTHER POWER SUPPLIES IN E10 HOUSE: E10 BUNCHER BUMP SUPPLY OCCASIONALLY KICKED OFF, E10 MAGNET SUPPLY MULTI-TRIGGERED. COULD NOT DETERMINE CAUSE.

(2). C15 KICKER CAUSED CURRENT OVERLOAD AND SUBSEQUENT TRIP-OFF OF CD RF STATION. PULSE ON RADIAL ERROR SIGNAL ALSO NOTED CONCURRENT WITH KICKER PULSE. WE CLAMPED RADIAL LOOP DURING THIS INTERVAL BUT LARGE TRANSIENT STILL OBSERVED FROM CD STATION. REDUCED RF AMPLITUDE ~20% TO AVOID TRIPPING OFF STATION. PROBABLE CAUSE IS DIRECT PICK-UP OF C15 SIGNAL IN CD AMPLIFIER OR CAVITY. REQUIRES MORE STUDY SINCE WE PLAN MUCH LARGER (1000 A → 20 000 A) PEAK CURRENTS IN BEAM KICKERS FOR FULL EXTRACTION OF ANS BEAM.

(3) INTERMITTENT TIMING PROBLEM PREVENTED EXTRACTION.