Blumberg

TUESDAY AUGUST 21, 1973

NO. 33

FEB BEAM COMMISSIONING STUDY

SCHEDULED 1600-2400 BLUMBERG, GLASMANN, GUTHY, KEANE, RAKA
ACTUAL 1630-2400

AGS DE-TUNED FROM 5.3 10^{12} TO ~2 10^{12}. LOST 2 HOURS BECAUSE E10 MAGNET WOULDN'T MOVE OFF RETRACTED POSITION CURTISS AND ZGURIS FIXED THAT. THEY NOTED THAT UPSTREAM SHAFT SHOWED INDICATION OF BINDING. BEAM EXTRACTED (TOTAL) INTO TEST CHANNEL WITHOUT TROUBLE WITH STANDARD SET-UP. NOTED THAT H10 MAGNET IS AN INJECTION APERTURE AT ITS "STANDARD" POSITION OF UPSTREAM = 2.1", DOWNSTREAM = 1.9", IN AGREEMENT WITH 5/25/73 OBSERVATION WHEN CBM WAS 9 10^{12}. WE MOVED MAGNET OUT TO UP STRM = 2.6 DWN STRM = 2.4" AND INCREASED H-SUPERPERIOD BUMP COIL CURRENTS FROM 1000 A TO 1200 A. THIS SOLVED APERTURE PROBLEM WITH NO OBVIOUS CHANGE IN EXTRACTED BEAM.

WE AGAIN SEE SOME BEAM LOSS AT ~1 MSEC BEFORE EXTRACTION TIME. THIS EFFECT WAS SEEN LAST MAY. LOSS CAN BE REDUCED TO NEGLIGLE AMOUNT BY RADIUS-SHIFTING.

EXTERNAL TRAJECTORY IN TEST PIPE CHECKED. WITH 21000 A IN H10 SEPTUM SPOT IS ~1" OUTSIDE AT U16 FLAG AND ~2" OUTSIDE AT UT165 FLAG. WE CAN EASILY CENTER SPOT AT U16 WITH H10 CURRENT CHANGE, SO BEAM LINE IS O.K.

FREQUENT TRIPS OF THE E10 SEPTUM POWER SUPPLY (VACUUM/WATER INTERLOCK) ABORTED STUDIES AT 2300. VACUUM GROUP REPORTED E10 BOX PRESSURE INCREASED TO ~3 10^{-5} mm DURING ATTEMPTS TO GET SUPPLY BACK ON. PUMP ROOM REPORTED ~45 GAL LOSS IN MAIN MAGNET WATER. LOOKS LIKE A LEAK. FINALLY, LOST 440V POWER TO E10 SUPPLY.