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STATUS REPORT ON THE TEST PROGRAM FOR ACOL INJECTION
AND "DOG-LEG" MAGNETS

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A test facility has been set up in building 195 for testing ACOL injection and "dog-leg" magnets. The test facility includes 2 high current pulsers, which have been taken over from the EF division. The pulsers were previously used in the neutrino experiment facilities. Each generator consists of a capacitor-bank of 2 x 2.2 mF, 4,5 kV, an SCR/diode switching module for discharging up to 4 kA and a recharging supply 4.5 kV, 6 A.

A high voltage test cage has been built, and a test program for the ACOL injection and "dog-leg" magnets was made. This note gives a status of the life tests carried out until now, and describes the future program.

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Life test of ACOL injection and "dog-leg" magnets in B.195

Up until 11.11.1986 the following tests have been carried out :

Test Period		Magnet	Peak Current	Pulse Length/ Waveform	No. of Pulses
Start	End				
10.4.86	17.6.86	ACOL inj. septum prototype (NIKHEF)	36 kA (10:1 tx)	5.5 ms damped half sine	1065000
16.7.86	5.9.86	W-dipole No. 1	1900 A	47 ms full sine	811000
25.7.86	11.8.86	W-dipole No. 2	1900 A	47 ms full sine	233000
12.8.86	21.8.86	W-dipole No. 3	1900 A	47 ms full sine	197000
12.9.86	-	ACOL inj. septum final magnet (NIKHEF)	37,5 kA (10:1 tx)	5.5 ms damped half sine	1010000
12.9.86	23.9.86	W-dipole No. 6	1900 A	47 ms full sine	225000
23.9.86	6.10.86	W-dipole No. 7	1900 A	47 ms full sine	430000
8.10.86	21.10.86	W-dipole No. 5	1900 A	47 ms full sine	168000
22.10.86	3.11.86	Quadrupole QD5	2500 A	23 ms full sine	443000
6.11.86	-	Quadrupole QF6	2500 A	23 ms full sine	209000

The repetition time between pulses has been between 2.4 and 3.0 seconds.

Updated Test Programme

Up until 30.4.1987 the following tests are scheduled :

Test Period		Magnet	Peak Current	Pulse Length/ Waveform	No. of Pulses
Start	End				
11.11.86	5.12.86	Quadrupole QF6	2500 A	23 ms full sine	800000
11.11.86.	28.11.86	ACOL inj. septum <u>final magnet</u> (NIKHEF)	Magnetic	Measurements	-
1.12.86	12.12.86	C-dipole trans- former No. 1 with dummy load	72 kA (18:1 tx)	25 ms full sine	To be decided
8.12.86	16.1.87	Quadrupole QD1 (rad. hard)	2500 A	23 ms full sine	800000
15.12.86	23.1.87	C-dipole No. 1	72 kA (18:1 tx)	25 ms full sine	To be decided
19.1.87	30.1.87	Quadrupole QF2 (rad. hard)	2500 A	25 ms full sine	200000
26.1.87	20.3.87	C-dipole No. 2 + transformer 2 + stripline	72 kA (18:1 tx)	25 ms full sine	To be decided
2.2.87	3.4.87	ACOL ejection septa in tank	27 kA (10:1 tx)	4.5 ms damped half sine	1000000
23.3.87	3.4.87	Quadrupole QD3	2500 A	23 ms full sine	200000
6.4.87	-	2nd ACOL ejection septa	27 kA (10:1 tx)	4.5 ms damped half sine	To be decided
6.4.87	17.4.87	Quadrupole QF4	2500 A	23 ms full sine	200000
17.4.87	-	Spare W-dipole	1900 A	47 ms full sine	200000