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To Program Power Supplies for Horizontal and Vertical High Field Quadrupole Strings to Shift Tune of AGS During Acceleration Cycle

A. Feltman

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Collider Accelerator Department

Brookhaven National Laboratory

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Date(s) May 22, 1985 Time(s) 0400 - 0700

Experimenter(s) A. Feltman, J. Funaro, R. DiFranco

Reported by A. Feltman

Subject/Experiment To program power supplies for horizontal and vertical high field quadrupole strings to shift tune of AGS during acceleration cycle

Preliminary Preparation

Two function generator cards were installed and SEB programs QVERT and QHORIZ were setup to talk to these cards. The function generator outputs were coupled to the respective d.c. power supply reference inputs. The SCR bridges were also bypassed.

Observations and Conclusion

QHORIZ and QVERT wre called and the respective function generators programmed through "FUNK". QHORIZ was setup in the LIN mode and QVERT was setup in the ramp mode. THis was done to demonstrate the versatility of the function generators.

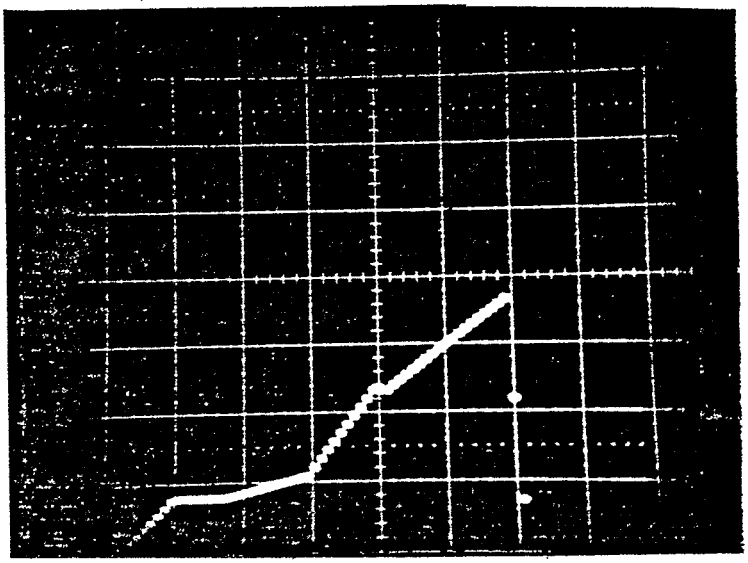
The function generator amplitudes and time settings are as shown with photos of the function generator output voltages and the corresponding magnet string currents.

One hundred amps full scale was used rather than two hundred amps because it appeared that we could not drive the power supply this high. It appears that the MUX for QVERT is probably off by 2/1.

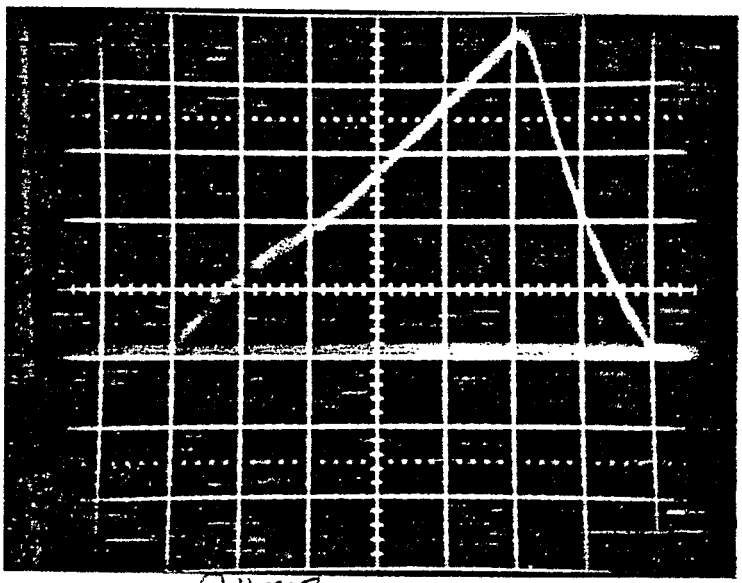
mvh

SEB HFELT 22-May-85 06:37 27.9
TIME= 1000 PRIORITY= 4

	AREA	EQPT	REQUEST		READBACK
1	SEB	QHORZ	1	ON	515 -514
2	SEB	QH1A	50		MSEC T0
3	SEB	QH1S	10	LIN	MSEC T0
4	SEB	QH1T	4	ON	MSEC T0
5	SEB	QH2A	380		MSEC T0
6	SEB	QH2S	40	LIN	MSEC T0
7	SEB	QH2T	12	ON	MSEC T0
8	SEB	QH3A	500		MSEC T0
9	SEB	QH3S	10	LIN	MSEC T0
10	SEB	QH3T	28	ON	MSEC T0
11	SEB	QH4A	1000		MSEC T0
12	SEB	QH4S	50	LIN	MSEC T0
13	SEB	QH4T	40	ON	MSEC T0
14	SEB	QH5A	2000		MSEC T0
15	SEB	QH5S	30	LIN	MSEC T0
16	SEB	QH5T	52	ON	MSEC T0
17	SEB	QH6A	-1000		MSEC T0
18	SEB	QH6S	600	LIN	MSEC T0
19	SEB	QH6T	70	ON	MSEC T0



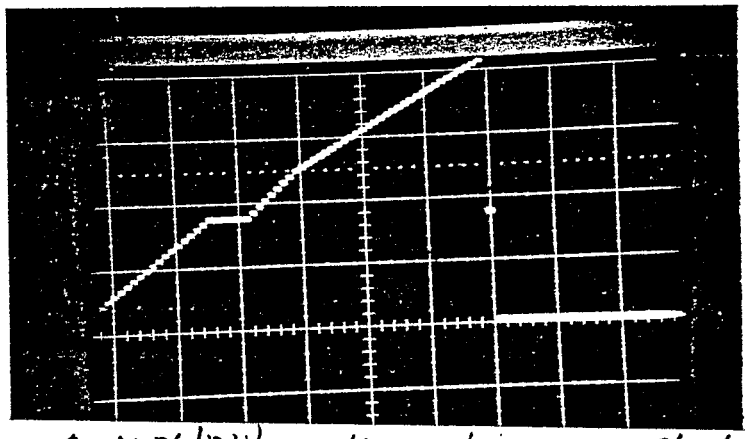
100mSEC/DIV 20AMPS/DIV. 5/22/85



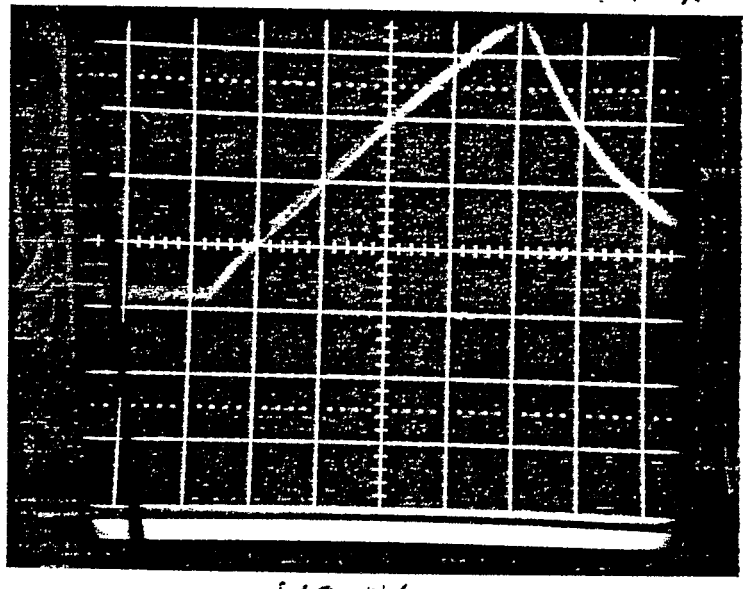
SEB AFELT 22-May-85 06:15 16.2
TIME= 1000 PRIORITY= 4

	AREA	EQPT	REQUEST		READBACK
			1	ON	0 1
1	SEB	QVERT			
2	SEB	QV1A	50		MSEC T0
3	SEB	QV1S	50	LIN	MSEC T0
4	SEB	QV1T	2	OFF	MSEC T0
5	SEB	QV2A	700		MSEC T0
6	SEB	QV2S	200	RMP	MSEC T0
7	SEB	QV2T	4	ON	MSEC T0
8	SEB	QV3A	700		MSEC T0
9	SEB	QV3S	400	RMP	MSEC T0
10	SEB	QV3T	26	ON	MSEC T0
11	SEB	QV4A	1700		MSEC T0
12	SEB	QV4S	800	RMP	MSEC T0
13	SEB	QV4T	40	ON	MSEC T0
14	SEB	QV5A	1000		MSEC T0
15	SEB	QV5S	32	RMP	MSEC T0
16	SEB	QV5T	32	ON	MSEC T0
17	SEB	QV6A	-2000		MSEC T0
18	SEB	QV6S	1000	LIN	MSEC T0
19	SEB	QV6T	70	ON	MSEC T0

2V/DIV 100MSEC/DIV 5/22/85



20 AMPS/DIV 100MSEC/DIV 5/22/85



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