

EXTRACTION KICKER PULSER DESIGN FOR MAIN INJECTOR

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Abstract

A fast kicker power supply has been designed for use in the Main Injector at Fermilab. The system will be used for controlled removal of unbunched beam created in the slip stacking process. A switch operating at 50 kV with a 3% to 97% rise time of less than 25 ns into a 50 Ω load is required. A thyatron and enclosure have been designed. A pulse length of 1.6 μ s is required so a cable pulse forming line is used. Results with and without a ferrite pulse sharpening line will be presented. The magnet is described in a companion paper.

**CONTRIBUTION NOT
RECEIVED**