Abstract Submitted for the DPP08 Meeting of The American Physical Society

Field Reversed Configuration (FRC) Formation Studies with Variable Magnetic Geometry G.A. WURDEN, T.P. INTRATOR, P.E. SIECK, R.J. CORTEZ, W.J. WAGANAAR, Los Alamos National Laboratory — FRX-L has been recently rebuilt with conical theta pinch coils, fast cusp coils, and a translation/capture coils. We report on studies of optimizing the formation of FRC's in the 4 degree conical theta pinch region, while doing parameter scans of the adjacent fast cusp coil B fields, and downstream translation coils. The visible interferometer is configured for 7 chords, and is located at the exit of the theta coil region, for quantitative density information. Filtered visible light fibers provide positional information, while sets of B-dot and flux loop probes yield excluded flux. This work is supported by the Office of Fusion Energy Sciences, and DOE/LANL contract DE-AC52-06NA25396.

Glen Wurden Los Alamos National Laboratory

Date submitted: 17 Jul 2008 Electronic form version 1.4