Abstract Submitted for the DPP11 Meeting of The American Physical Society

3D modeling of merging plasma jets JOHN LOVERICH, AMMAR HAKIM, SEAN ZHOU, Tech-X Corporation — PLX is a new experiment at LANL investigating imploding plasma liners formed via merging plasma jets. In the future, an imploding plasma liner could be used as a standoff driver for MIF implosions. In this paper we present 3D simulation results of multiple interacting jets with and without magnetic fields including a general equation of state and simple radiation models using the Tech-X code Nautilus. A brief description of the algorithms and plasma models used will also be presented.

John Loverich Tech-X corporation

Date submitted: 26 Jul 2011 Electronic form version 1.4