

Status of the US Inertial Confinement Fusion Program

Dr. Christopher J. Keane

National Nuclear Security Administration (NNSA), chris.keane@nnsa.doe.gov

The NNSA Inertial Confinement Fusion (ICF) Program executes the high energy density physics experiments required to support the nation's nuclear stockpile. The major facilities in the ICF Program are the National Ignition Facility (NIF), under construction at LLNL, the OMEGA laser at the University of Rochester, and the Z facility at Sandia National Laboratories. Demonstration of laboratory ignition is a major goal of the program and a necessary step for inertial fusion energy; first ignition experiments at NIF are now scheduled for 2010. The ICF Program also pursues research in other areas such as pulsed power fusion and the applications of high-energy, short-pulse lasers. Recent progress in these and other areas and a summary of future plans will be presented.