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Title: CRADA LA12C10675 "Magneto Inertial Fusion Plasma Target Collaboration"

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Parks, Zachary Randolph

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Name/Org: Trujillo, Sharon M. / FCI-DO: RICHARD P. FEYNMAN CENTER FOR INNOVATION
Date: 2016-08-08
Guidance (if applicable):

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Cooperative Research and Development Agreement (CRADA) Final Report

In accordance with requirements set forth in DOE Order 483.1A Article X issued 11-6-2013, this document is the final CRADA report, including a list of Subject Inventions, to be forwarded to the Office of Science and Technical Information as part of the commitment to the public to demonstrate results of privately and/or federally funded research at Los Alamos National Laboratory

CRADA Number: LA12C10675
CRADA Title: Magneto Inertial Fusion Plasma Target Collaboration
Parties to the Agreement:
Los Alamos National Laboratory
General Fusion, Inc.

Nonproprietary Abstract of CRADA Work:

The Participant and Los Alamos National Laboratory (LANL) investigated possible paths for compression of plasma targets in Magneto Inertial Fusion (MIF) regimes. MIF involves the addition of a magnetic field to Inertial Fusion type plasma targets, potentially improving energy confinement. This technique could reduce the power, precision, and cost required to compress and heat plasma targets to fusion relevant conditions, leading to a lower cost path to a fusion energy source. MIF regimes are intermediate between magnetic fusion energy and inertial fusion energy approaches. LANL is pursuing the creation of a MIF compatible magnetized plasma target with long enough lifetime to compress it inside a solid cylindrical, flux-conserving shell. The Participant also requires a similar plasma target for use with a novel acoustic wave compression scheme.

Summary of Research Results:

All agreement tasks and deliverables were completed per the CRADA's statement of work.

Subject Inventions Listing: None
Report Date: 7/29/2015
OSTI Release Date: 7/29/2020
LANL Technical Contact: Thomas Weber
LANL Responsible Administrative Contact: Zachary Parks and Sharon Trujillo

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