

Abstract Submitted
for the DPP17 Meeting of
The American Physical Society

Neutral Beam Development for the Lockheed Martin Compact Fusion Reactor FRANS EBERSOHN, REGINA SULLIVAN, Lockheed Martin - Palmdale — The Compact Fusion Reactor project at Lockheed Martin Skunk Works is developing a neutral beam injection system for plasma heating. The neutral beam plasma source consists of a high current lanthanum hexaboride (LaB6) hollow cathode which drives an azimuthal cusp discharge similar to gridded ion thrusters. The beam is extracted with a set of focusing grids and is then neutralized in a chamber pumped with Titanium gettering. The design, testing, and analyses of individual components are presented along with the most current full system results. The goal of this project is to advance in-house neutral beam expertise at Lockheed Martin to aid in operation, procurement, and development of neutral beam technology. ©2017 Lockheed Martin Corporation. All Rights Reserved.

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Date submitted: 14 Jul 2017

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