

NSTX-U Weekly Report (February 13, 2015)

NSTX-U is in the Upgrade Project outage in FY 2014

Engineering Operations (A. von Halle, P. Titus)

NSTX Upgrade activities continued with the ongoing installation of coil system bus work and water systems. Bus joint resistance measurements and water system hydrostatic tests are in progress. NSTX-U Test Cell scrubs marking the conclusion of construction activities and the start of operations prep are scheduled to start on March 2nd.

The Digital Coil Protection System (DCPS) and the Power Supply Real Time Control (PSRTC) development efforts are working towards the start of Field Coil Power Conversion (FCPC) System dummy load testing. PSRTC pre-operational testing has been completed, and the DCPS has been prepared with the parameter settings appropriate for the upcoming power tests.

Preparations for plasma operations in the NSTX-U configuration also continued. The NSTX-U vessel is under high vacuum and the operating routine of daily inner vacuum vessel electrical insulation tests has resumed. Preparations to start the dummy load testing of the FCPC rectifiers are in progress, and Kirk Key interlock system testing has been completed for the MG systems, FCPC, the NSTX Test Cell, and the ground switches. The Power System Safety Lockout Device (SLD) has been pressurized to complete the remainder of the hardwired interlock system testing. Welding of the coaxial lines for the deuterated trimethylboron (dTMB) system in the test cell is scheduled to start this coming week, and preparations to use the DCPS Autotester to test/exercise the new Ip Calculator are underway.

Access to the NSTX test cell will be available only through previous arrangement with the Upgrade Work Control Center.