

NSTX Weekly Report (March 4, 2011)

FY 2011 NSTX plasma operations started on October 4, 2010

FY 2011 NSTX Outage started on October 25, 2010

Planned Run Weeks: TBD

Run Weeks Completed: 4.21 run weeks and 839 plasma shots

Hisamichi Funaba from the National Institute for Fusion Science (NIFS), Toki, Japan is visiting NSTX as part of the US-Japan Collaboration to investigate impurity transport issues in the NIFS Large Helical Device (LHD) and NSTX. (D. Darrow, PPPL)

Engineering Operations (A. von Halle, C. Neumeier)

The NSTX outage continued this past week with the completion of alignments of center stack tiles for the new MSE-LIF diagnostic, and the ongoing commissioning of the new diagnostic neutral beam for that diagnostic. The reinstallation of the RF cages for the HHFW antennas is in progress and is expected to be completed next week. Machining of the four LLD plates to accept new mounting hardware has been completed for the first two plates, which are now in the Vacuum Prep Lab for cleaning. The second two plates are expected to be completed next week. Power testing of the DC Link rectifier needed for the second Switching Power Amplifier (SPA) supply for the machine's error field coils was completed this week. Also this week, in-vessel alignments of the BES and CHERS diagnostics were performed, and new fiber-optic cabling for the CHERS and tFIDA diagnostics were pulled into the test cell.

Access to the NSTX test cell will be available this coming week.

Research Operations (M. Bell)

Boundary Physics Operations (H. Kugel)

- Liquid Lithium Divertor (LLD)
 - The machining maintenance of the first and second of four LLD plates was completed. Machining is in progress on the third plate.
 - The Critical Lift Procedure for Cleaning the LLD after machining was approved.
 - The cleaning of the first LLD plate was completed.
- Materials Analysis Particle Probe (MAPP)
 - A special electronic rack sent from NSTX to Purdue University (J. P. Allain) was received, and work is in progress to outfit it for the MAPP system.
 - Purdue University graduate student Bryan Heim visited NSTX for meetings and fit-up work on the installation of the MAPP probe.
 - A trial fit-up of the MAPP analysis chamber to an NSTX lower divertor port was successful.
- Molybdenum Inner Divertor
 - Engineering analysis is in progress to obtain design information for installing a thermocouple in a molybdenum tile

Diagnostic Operations (R. Kaita)

The alignment and full spatial calibration for the inboard ("R130") view on the Beam Emission Spectroscopy (BES) diagnostic was completed. This work was performed during the last week with personnel from the University of Wisconsin collaboration and PPPL.