

NSTX Weekly Report (January 21, 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

Rob Goldston presented a talk at MIT titled "Heuristic Drift-Based Model of the Power Scrape-Off Width in H-Mode Tokamaks", which was followed by very useful discussions, about both theoretical and experimental issues. (R. Goldston)

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

The NSTX outage continued this past week with the welding and successful leak checking of penetrations and flight tubes for the new MSE-LIF diagnostic. Structural modifications needed for the installation of the new diagnostic neutral beam for MSE-LIF are now in progress. Lay-outs of new penetrations for the T-FIDA diagnostic were also performed, and new BES shutter assemblies were fit-up. Weld inspections of the MG Set spider arm were successfully completed. Also this week, the final design review of an upgrade to convert the lower inner divertor to Moly tiles was held. This review was successful pending chit resolution, and NSTX schedule impacts are being evaluated.

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 LLD plates were positioned in the DARM assembly area for inspection.
 - An engineering and physics inspection of the plate conditions was performed, and this was followed by a Peer Review of the LLD Plate Maintenance and Reinstallation".
 - Work was initiated in preparation for the mechanical work and reconditioning of the plates.
- Molybdenum Inner Divertor Tiles
 - An inspection was performed to inventory the existing Inner Divertor, magnetic, Langmuir Probe, and thermocouple instrumentation presently installed in graphite tiles
 - A molybdenum tile configuration to retain the existing instrumented graphite tiles, and minimize non-standard molybdenum tile shapes was adopted.
- Disruption Mitigation
 - Additional technical information on "Modifications to the LDGIS system for Disruption Mitigation Studies in Support of ITER" was presented by R. Raman (U Wa).
- Materials Analysis Particle Probe (MAPP)
 - Analysis of the remote control options for the probe rotary motion feed-through was in progress in preparation for the Final Design Review.