

NSTX Weekly Report (February 13, 2004)

FY 2004 weeks of operation planned: - 18 weeks, Completed: - 2.2 weeks

Department, Project, Program (M. Ono, M. Peng, M. Williams, E. Synakowski)

- The following 7 Abstracts were accepted for presentation at the 16th International Conference on Plasma Surface Interactions in Controlled Fusion Devices, Portland MA, May 24-28, 2004: "ELMS in H-Mode Pedestal in NSTX", R. Maingi (ORNL), et al. (oral presentation), "Analysis of Divertor Regimes and Core Fueling in the National Spherical Torus Experiment", V.A. Soukhanovskii (LLNL), et al. (poster presentation), "Development of NSTX Particle Control Techniques", H.W. Kugel, et al. (poster presentation), "First Results from a Systematic Characterization of the Boundary and Power Flow to the Divertor in NSTX", S. Paul, et al. (poster presentation), "Multi Ion Flux Simulation of Tokamak Edge Plasmas Including Non Diffusive Anomalous Cross-Field Transport", A. Pigarov (UCSD), et al. (poster presentation), "Time Resolved Hydrocarbon Deposition in NSTX", C.H. Skinner, et al. (poster presentation), "3D Simulation of Gas Conduction Experiments on Alcator-C Mod and NSTX", D. Stotler, et al. (poster presentation) (H. Kugel)
- There will be no NSTX Physics meeting on Monday, 2/16/04.

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

- NSTX operations were on hold this past week for scheduled maintenance. Upper TF flexible connections were removed in order to inspect and check bolt torques on some of the upper TF flags. These tests indicate no change in flag joints during one week of integrated system power testing and two weeks of plasma operations. Considerable progress was made on the installation of the Lithium Pellet Injector, with pre-operational testing scheduled to begin soon.

Plasma operations resumes this Monday with experiments in HHFW conditioning and breakdown. In the coming week, the test cell will be in restricted access during 1st shift, with test cell access available from approximately 5:00PM to 10:00PM each evening. The next maintenance week is scheduled for March 8th - 12th. (A. von Halle)

Quality Assurance (J. Mulsberry) Following is input from QA for NSTX highlights (Lynne Yager): QC provided coverage for

- LPI installation activities, electrical and mechanical
- MPTS - GDC installation activities
- Generated non-conformances for NEC and procedural violations
- NSTX platform extension activities

Research Operations (M. Bell)

Boundary Physics Operations (H. Kugel)

- Lithium Pellet Injector (LPI) vent line modifications were completed successfully. The modification of the high pressure gas lines was started and is in progress. Cable installation for the vacuum interface signals was completed. Revisions to the Safety Assessment Document (SAD) and Failure Modes and Effects Analysis (FMEA) for the LPI were approved by the SRC. The Operating Procedure for Low-Z Pellet Fabrication and Loading was approved.
- Testing began on a trigger time change for the Fast RGA scan mode using a timed gas injection.
- After maintenance, the TIV for the Bay-C Mid-plane Micro Ion Gauge for measuring the Bay-C RF Antenna internal neutral pressure during conditioning and operations was opened to the vessel successfully. Reconnection of gauge cabling and shielding was started.
- The Boundary Physics ET Group reviewed 4 Experimental Proposals (XP's) and discussed the status of forthcoming activities.