

NSTX Weekly Report (Feb. 06, 2009)

FY 2009 NSTX plasma operations

Planned: TBD

Completed: 0 run weeks

The NSTX 25th Program Advisory Committee (PAC-25) meeting will be held on February 18-20, 2009 in LSB-B318 at PPPL. The PAC-25 will advise on the NSTX FY 2009-2011 research plan in preparation for the upcoming FY2009 plasma operations as well as for the FY 2011 Field Work Proposal. If you have any questions, please contact Jon Menard (jmenard@pppl.gov)

- The February NSTX Team Meeting was held on Wednesday, February 4, 2009 at 1:30 P.M., in B318. The meeting presentation material is available on the NSTX web page.

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

The bake of the NSTX vacuum vessel was completed this past week, and systems are being configured to begin integrated system power testing this coming week. Neutral beam ion source conditioning was performed in parallel with the bake, and all three ion sources are now operating at $> 80\text{keV}$. Resistive Wall Mode Error Field Coil connections have been completed and tested, and electricians are working to install new cables to the absorber nulling coils. Hardwired Interlock, Kirk Key and Emergency Stop System testing is in progress, as well as the calibration/testing of the power supply protection systems. The MG set was successfully run up to speed this past week for pre-operational tests and vibration monitoring.

The NSTX Test cell will be in restricted access this coming week during power testing and field coil operation. Limited access will be available after 5PM each evening..

Research Operations (M. Bell)

Boundary Physics Operations (H. Kugel)

- Liquid Lithium Divertor (LLD)

PPPL:

- 5 plates brazed, 4 plates water-jet cut, final machining of flat plates prior to step-bending started.
- Initial testing of candidate Watlow, Omega, and Tempco heaters in air in the original step-bent test piece was completed.
- Fabrication of 2, flat, brazed, test plates for additional heater testing in vacuum was completed.
- Preparations were started to vacuum test heaters for outgassing and any possible vacuum conditioning requirements. --- This will be followed by heater/TC control testing in vacuum.

SNL:

- Visual assessment of plate #1 by the braze vendor indicated good bonding. The brazing of plates #2, and #3 plate scheduled for completion this week.
- after cleanup machining, these first 3 plates will be shipped for molybdenum coating by

2/16/09; the remaining 3 of 6 plates will be shipped for molybdenum coating, 7 days later, ~2/23/0-9.

- Analysis is in progress to assess alternate heater control approaches.

- Edge Sample Probe (C.H. Skinner)

- A teleconference was coordinated by C. H. Skinner with the Purdue and NSTX teams to review the schedule and remaining tasks for installation of the Sample Probe during the first maintenance week.

Diagnostic Operations (R. Kaita)

- The reinstallation of diagnostics that had to be removed for bakeout is in progress. The checkout of data acquisition systems has also begun. A major concern is the reliability of the “Skylark” LINUX computer that has replaced the VMS computers formerly used for MDSPlus data handling functions.