

NSTX Weekly Report (Oct. 17, 2009)

FY 2010 NSTX plasma operations

Planned: Total - TBD run weeks

Completed: 0 run weeks

• Steve Sabbagh (Columbia University) attended the 3rd ITPA MHD Stability Topical Group meeting and the IEA workshop on Key ITER disruption issues, held at the UKAEA Culham Science Center on Oct. 6-9, 2009. He gave two talks entitled "Macroscopic Stability Research on NSTX - Update" and "Disruptions and Halo Currents on NSTX - Update". In addition, NSTX results were represented in five joint experiment/analysis summaries. NSTX was the first contributor of the new halo current data variables established for the ITER disruption database. (S. Sabbagh)

• Masa Ono visited the University of Tokyo, Kashiwa-Campus under the US-Japan Personnel Exchange Program on Oct. 5, 2009. He visited the TS-2, the UTST, and the RT-1 groups. He also gave a seminar entitled "Recent Results of NSTX."

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

The NSTX outage continued this week with the fit-up and installation of the first Liquid Lithium Divertor (LLD) tray segment. The second LLD segment has been prepared in the shop and is ready to be moved into the vacuum vessel. Electricians continue to install tray-work for LLD cabling, and vessel feed-throughs are being installed. Also this week, Inspections of the TF bus-work continued, and included electrical insulation testing.

The NSTX test cell will be in free (card reader) access this coming week.

Research Operations (M. Bell)

Boundary Physics Operations (H. Kugel)

- Liquid Lithium Divertor (LLD)
 - The lower divertor tiles were removed for the LLD installation.
 - The first LLD plate was installed in the vacuum vessel together with its Rogowski sensor coil, and final alignment is in progress.
 - The trial-fitup of the graphite tiles surrounding the LLD plate started.
 - The welding of the cooling line for plate #3 was completed, and welding was started on the plate #4 cooling line.
 - Installation of the LLD electrical feedthroughs started.
 - The control rack power tie-in to the 480V bus in the NTC was completed, and cable traywork is in progress.
- LLD Diagnostics
 - The CCD camera for enhanced LLD spectroscopy was received and passed initial inspection.

- A requisition was submitted for materials to fabricate reentrant lower divertor region, fast camera viewports.
- Lithium Evaporator (LITER2010)
- Requisitions were submitted for connectorization materials for the two new probe assemblies
- Edge Sample Probe
- Teleconference was held between the Purdue and NSTX teams to coordinate Sample Probe plans for FY10, and for a Conceptual Design Review on Tuesday 11/24/09 for its use for a Materials Analysis Particle Probe (MAPP).