

## **NSTX Weekly Report (August 31, 2007)**

**FY 2007 NSTX plasma operations completed on June 22, 2007.**

**Planned: 12 weeks**

**Completed: 12.63 weeks with 1,879 plasma discharges**

- The NSTX Team Meeting was held on August 29, 2007. The meeting material is available on the web: [http://nstx.pppl.gov/DragNDrop/Team\\_Meetings/08-2007/](http://nstx.pppl.gov/DragNDrop/Team_Meetings/08-2007/).

- For those interested in collaboration on NSTX for 2008-2010, please be aware that the DOE notice and NSTX program letter for NSTX collaboration opportunities for 2008-2010 are available on-line.

The details: This round is focused on universities and industry

- Major diagnostics are not emphasis of this collaboration period
- Major diagnostics will be emphasis of 2009-2011 proposals

Letters of intent are due to DOE September 11, 2007

Proposals are due to DOE October 11, 2007

- Notice on web: <http://www.science.doe.gov/grants/FAPN07-29.html>

NSTX Program Letter and Record of Discussion forms are now on web:

- [http://nstx.pppl.gov/nstx/NSTX\\_Program\\_Letters/](http://nstx.pppl.gov/nstx/NSTX_Program_Letters/)
- At suggestion of PAC, program letter contains focused background information motivating collaboration opportunities
- Approved Record of Discussion (RoD) should be completed by Oct. 4
- RoD is due with DOE proposal on Oct. 11

If you have further questions, please contact J. Menard ([JMenard@pppl.gov](mailto:JMenard@pppl.gov)).

- There will be no Monday Physics Meeting this week due to the Labor Day holiday. (S. Kaye)

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

FARO arm measurements of the attachment points for the liquid lithium divertor on the lower outboard divertor were completed in the vacuum vessel. Investigation of the arcing of the RF parts removed from the vacuum vessel is on-going. Reconditioning of the NSTX torus interface valves continues and the main TVPS TIVs were completed this past week. The installation of the ground bus continues and the refurbishment of the two Neutral Beam sources is in progress and on schedule. The NSTX test cell will be in unrestricted (card reader) access this coming week but there will be no technician coverage over the three day weekend. (W. Blanchard)

### **Research Operations (M. Bell)**

#### **Boundary Physics Operations (H. Kugel)**

- Cored graphite samples were obtained from 3 different laser cleaning tests on a lower divertor tile. Optical microscope photos of these samples were obtained. In addition, cored graphite samples were

obtained from an upper outer divertor tile and an upper primary passive plate tile. Reservations have been confirmed for analysis of these samples next week using the SEM/Xray system at the main campus Imaging and Analysis Center of the Princeton Institute for the Science and Technology of Materials (PRISM). (J. R. Timberlake, L. Guttadora, L. Roquemore, C.H. Skinner)

- The weekly LLD (Liquid Lithium Divertor) project meeting received the following reports: a) the in-vessel FARO Arm measurements to characterize the outer divertor surface at the LLD position were completed and analysis of the data is in progress, b) the welding and brazing of 3 lithium test vessel trays was completed. Two units will be shipped to SNL for testing candidate LLD lithium surfaces, and one will be used for associated tests in L-245, and c) an update on SNL testing status and near term plans was discussed. (R. Ellis III)

#### Diagnostic Operations (R. Kaita)

- The white-plate calibration of the multipoint Thomson scattering system (MPTS) has been completed. This ends the major diagnostic calibrations for the present opening.
- A meeting was held on August 28 to discuss the synchronization of diagnostics with frequency responses in the megahertz range. Some promising possibilities were identified, and they will be investigated further to determine their practicality.