

## NSTX-U Weekly Report (Aug. 17, 2012)

### **NSTX-U is in the Upgrade Project outage in FY 2012**

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

NSTX Upgrade construction activities continued this week with the ongoing rework of welding on the new bay J-K cap and port extension needed to install the 2nd neutral beam on the NSTX vessel. Welding is about 75% complete, and we are moving forward with plans for the vessel cuts at bay L and bays J-K. Welders are continuing to install new TF clevis pads on the vessel, and fitting up new new umbrella legs. Test cell penetrations needed to provide services for the second neutral beam have been completed, and we are on track to move that beam-line into the test cell by late September.

Preparations of non-upgrade equipment for plasma operations in the NSTX-U configuration also continued. Strategies for the recommissioning of the field coil power conversion system are being developed, and the assembly of the new firing generators for these power supplies has started.

Access to the NSTX test cell will be available only through previous arrangement with the Upgrade Work Control Center.

A sample vacuum pressure impregnation (VPI) process of the NSTX Upgrade Center-stack (inner TF bundle and OH coils) utilizing the CTD-425 was performed for the first time at the PPPL shop. A photo slide is attached. The VPI looks good and no evidence of exotherming or charring. We will do some cutting of the bundle and the over flow tubes to further evaluate the VPI test. Overall I believe that this was a very good VPI. (J. Chrzanowski)

## Proto-type VPI Sample for the NSTX Upgrade Coil Fabrication

A cyanate-ester epoxy called CTD-425 was used  
which also will be used for the ITER TF magnet\*



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