

## **NSTX-U Weekly Report (May 5, 2017)**

**FY 2017 status: NSTX-U is in a maintenance and repair outage.**

### **NSTX-U Recovery Project (R. Hawryluk)**

Preparations are underway for the second Extent of Condition Review Committee. Completed roll-up of chits from last seven DVVR's into Proposed Corrective Action Spreadsheet. This includes input from Responsible Engineers (REs) on impact and cost/schedule for mitigation, and input from NSTX-U management on proposed action (Necessary for Start-Up, Strongly Recommended for Start-Up, Recommended for Start-Up, etc.). The final total of ~ 1200 chits has been condensed into ~ 450 issues. The spreadsheet, an overview talk, and responses to the committee's previous recommendations were provided to the committee.

Dry runs of presentations for the upcoming Extent of Condition (EoC) review have started, and will continue into the coming week. As talks are completed, they will be posted.

Recommissioning of the coil winding facility also continued with the test bending and setting of conductor into a lead block, and the preparations of the lead block VPI mold. A peer review of procedures for the fabrication of a PF-1A prototype is scheduled for this coming Friday. An extension to the oven is being set up in case it's needed during the VPI of a PF-1A prototype. PPPL staff witnessed the priming of PF1 conductor at Everson Tesla.

Vacuum leak checking of the new Pulse Burst Laser System (University of Wisconsin) was successfully completed.

### **NSTX-U Research (J. Menard)**

The ITPA Transport & Confinement Topical Group meeting was hosted at PPPL (local host Walter Guttenfelder) May 1-3. Topics discussed included particle transport during pellet fueling (TC-25), progress on neural net implementation of transport models (TC-29), validation of quasi-linear transport models, phenomenology and modeling of the transition between LOC-SOC confinement regimes (TC-21), particle pinch vs. collisionality (TC-15), update on the ITER confinement database (TC-28), and impurity transport (TC-11). There was also extended discussion on how to organize the Transport & Confinement section of the ITER Physics Basis Update as requested by the ITPA Coordinating Committee. The next ITPA T&C meeting will be held in Helsinki, Finland Sept. 18-20.

Stan Kaye chaired the TRANSP User Group (TUG) [Meeting](#) held at PPPL May 4-5, 2017.