NSTX-U Weekly Report (Jan. 24, 2014)

NSTX-U is in the Upgrade Project outage in FY 2014

NSTX-U researchers Joon-Wook Ahn (ORNL), Rob Goldston and Michael Jaworski (PPPL) attended the 19th ITPA DivSol meeting in Kanazawa, Japan. Joon-Wook Ahn presented the talk "Impact of ELM filaments on divertor heat flux dynamics in NSTX" and Michael Jaworski presented the talk, "Material erosion and migration studies for NSTX-U". (M. Jaworski)

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

NSTX Upgrade activities continued with the ongoing winding of the new OH coil on the inner TF bundle. Winding has been extended to two-shift operations, and the first layer of the OH coil has been completed [see the attached pictures]. The transition to the second layer is in progress. The fabrication of the new PF1B coil has been completed at Everson Electric, and that coil is being prepared for shipment to PPPL.

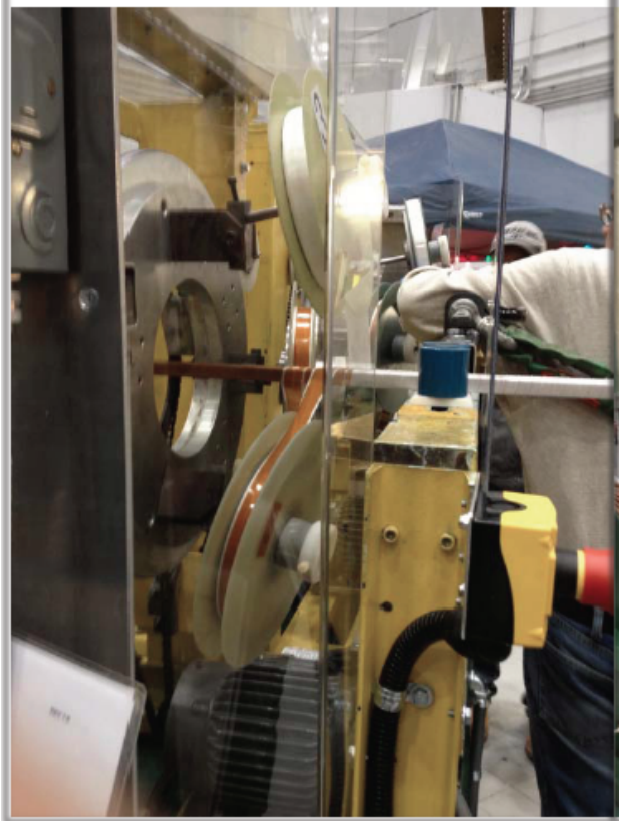
Preparations of non-upgrade equipment for plasma operations in the NSTX-U configuration also continued with the ongoing preparations to contract weld repairs of the spider arms on MG Set #1. Additional metal samples were taken from MG#1 this past week, as needed by the PPPL weld engineer to make final refinements to the weld procedure details in the Statement of Work (SOW). The SOW has now been revised and is ready for sign-off. Also, In Field Coil Power Conversion, new firing generators have been installed in rectifiers, and control power testing is in progress. New fiber-optics for control connections to the junction area are on site, and the procedure to install them is in review. Individual rectifier power testing is expected to start next month.

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

OH Winding Ist Layer Complete

OH Taping and In-Line Braze Stations

Taping Machine – Three fiberglass tapes, first two with kapton



In-line induction braze – Braze area (top), Braze set up (bottom)