

NSTX-U Weekly Report (October 6, 2017)

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

Recovery

Successful Preliminary Design Reviews (PDRs) for the Low Heat Flux Plasma Facing Components (PFCs) and the TVPS backing pump have been completed.

Awards are ready to be made to two vendors for fabrication of inner PF Coil prototypes. A third award is expected to be ready in the near future.

Research

R. Maingi presented a talk at the Workshop on High-Fidelity Boundary Plasma Simulation on Leadership Class Computers, held 4-5 Oct 2017 at PPPL: "Cutting Edge boundary simulation calculations and validation opportunities for ITER and NSTX-U".

Michael Jaworski visited Sandia National Laboratories on September 28th and delivered a talk titled, "Liquid Metal Technologies and Consequences for Magnetic Fusion Energy and More" at the Z-Machine High-Energy Density Physics Seminar. The seminar described the usefulness of liquid components to create resilient and renewable surfaces in tokamaks. Topics in the seminar included the demonstration of stable liquid divertor operation in the NSTX 2010 run campaign and local measurements of plasma density and temperature during that experimental campaign. Further application of these technologies to other areas of the DOE complex were proposed and discussed. The visit included additional discussions and tours of Sandia pulsed-power facilities.