Abstract Submitted
for the DPP06 Meeting of
The American Physical Society

Measuring Magnetic Field Evolution in SSPX[1] J.C. ORTIZ, C.A. ROMERO-TALAMAS, SSPX TEAM[2] — A magnetic probe with two linear arrays of chip inductors is being designed and fabricated to investigate magnetic field evolution at SSPX in LLNL. The design is based on a previous design already implemented at SSPX. The same entry port on the side of the flux conserver, including vacuum hardware to insert or retract the probe, will be reused from the previous design. The new design consists of two probe arms each fitted with a linear array of three-axis chip inductor clusters. The probe arms are designed to be opened and closed at various angles, and to be rotated 180 degrees about the tubular axis. Due to the harsh plasma environment inside the flux conserver, precautions are being taken to eliminate metal-to-metal contact, taking into account durability issues as well. Moveable mechanisms include formed and welded bellows, and custom-made bearing systems fabricated out of metal and macor.

[1]Work performed under the auspices of the USDOE the University of California Lawrence Livermore National Laboratory under Contract No. W-7405-ENG-48.
[2]Lawrence Livermore National Laboratory

Carlos Romero-Talamas
Lawrence Livermore National Laboratory

Date submitted: 21 Aug 2006 Electronic form version 1.4