

Weekly Report for 08/31/2015

APS Renewal and Upgrade

- Worked on BTS line design. Mainly try to find a solution with emittance exchange. (Aimin Xiao)
- Calculated required pulser rise/fall time for different fill pattern. (Aimin Xiao)
- Review/update presentation for DOE review (Aimin Xiao)
- Attended MBA Radiation and Beam Physics meetings. Earlier, provided B. Micklich with tech note AOP-TN-2012-020 describing gas-bremsstrahlung-induced neutron measurements made in S35. (Jeff Dooling)

MCR Operations

Linac Operations

- Re-established lasing in the regen after shutdown. Only able to operate in linac trigger mode; asynch rate set to zero. (Jeff Dooling)
- Working with S. Shoaf (CTL-AES) found timing values not properly reloaded into DG time delay units; corrected through power-cycling and manual re-entry of pulsewidth settings. (Jeff Dooling)
- With S. Pasky verified that new TRP-114 circuit breaker lock out hardware is functioning for the Laser. (Jeff Dooling)
- Received and replaced L2 lens in telescope between regen and compressor. Realigned the beam through the compressor. (Jeff Dooling)
- Requested support from AES-MOM group for new pgun chiller expected to arrive in the next few weeks. (Jeff Dooling)

Procedures

- Computer Room Cooling Failure Procedure (APS_1658489) (Randy Flood)
- APS Alternate Lock-out/Tag-out (LOTO) (APS_1276343) (Randy Flood)

Training

- Attended EEO/AA training (Randy Flood)
- Attended training on new FMS request system (Randy Flood)

MCR Operations administrative/misc.

- Compiled stats for the run and fiscal year (Randy Flood)
- Wrote the operators schedules through December (Randy Flood)
- Approved operators' time cards (Randy Flood)
- Approved vacation requests, set up coverage and updated the online schedule (Randy Flood)
- Approve CTLs, IT and Other work requests (Randy Flood)

APS Machine Studies

Storage Ring Studies

- Worked on calibration of the SCU1 BLMs from data collected in July; found the 7-fiber bundles within the cryostat behave differently than 61-fiber bundles such as the one install on the upstream ID in Sector 1. (Jeff Dooling)
- The 7-fiber bundles have a more linear response, but longer decay than the 61-fiber bundles. (Jeff Dooling)

APS Machine Research and Development

Storage Ring Research and Development

- Attended helical SCU project kick off meeting. (Aimin Xiao)

APS Machine Software

Injectors

- With assistance from R. Soliday, modified an earlier script to calculate UV beam properties (pulsewidth and energy) based on IR input power density. (Jeff Dooling)
- The modified script models spot size variation due to the nonlinear frequency conversion process, and accurately predicted the uv output energy obtained for pcgun machine studies. (Jeff Dooling)

General

- Wrote a script to calculate the spot size of compressor camera images; this can be applied to 2-D images from other cameras as well. (Jeff Dooling)

IOC/EPICS/Controls/Linux/Solaris/Linux Clusters/Data Loggers/Simulation software

- Fixed a data glitch in the SR fill history tool (Randy Flood)
- Administer the EPICS CVS repository to ensure current versions are installed and conflicts are tracked down and eliminated. (Randy Flood)

Meetings, workshops, conferences, committees, LMS related, and reviews

- Participated in multiple meetings about waterproofing the Booster tunnel (Randy Flood)
- Attend shutdown planning meetings (Randy Flood)
- Presented stats and operational issues to Ops Directorate meeting (Randy Flood)

Safety and Required Training

- Completed two on-line ESH required reading exercises ESH340 and LMSPROC137. (Jeff Dooling)

Miscellaneous

- Administer multiple mailing lists and the elegant forum. Two of the mail lists were attacked by spambots. I worked with IT to stop the attack (Randy Flood)