

Weekly Report for 10/21/2013

APS Renewal and Upgrade

- Sat in with L. Emery and collected fast beam loss data during small aperture injection study. Also set up and collected Cerenkov detector data. (Oct. 14-18) (Jeff Dooling)
- Attended plenary sessions of the MBA workshop. Suggested to G. Decker that FO fast loss monitors could be used in undulator straight sections. (Jeff Dooling)

MCR Operations

Storage Ring Operations

- Assisted MCR with access to repair the water leak and wiring after the S12B:Q4 P.S. trip. Discussed ways to shorten the downtime if a similar instance occurred. (Karen Schroeder)
- Investigated two beam instability reports and discussed findings with Users and assisted the MCR with a third. (Karen Schroeder)
- Assisted the MCR with a problem with orbit control. Found the problem was S17FB. Compiled a list of problems with this IOC the past few runs, all having to do with BPM errors, although different types and sent to Frank Lenkszus. (Karen Schroeder)

MCR Operations administrative/misc.

- Compiled the weekly downtime report and updated the fill history. (Karen Schroeder)
- Reviewed and approved non-RSS SR work requests. (Karen Schroeder)
- Reviewed new and updated procedures (Karen Schroeder)

APS Machine Studies

Storage Ring Studies

- Updated machine studies schedule with last minute requests. (Karen Schroeder)

APS Machine Research and Development

Storage Ring Research and Development

- Ran all aluminum scraper model in MARS for scraper redesign. Met with Y-C. Chae to discuss results. (Jeff Dooling)

Linac Research and Development

- Continued effort to get the regen laser operating. Again had assistance from J. Power (ANL/AWA); set up laser in free-running mode (without q-switching), but was not able to obtain lasing. (Oct. 14-18) (Jeff Dooling)
- Will modify laser SOP to include Power as an Authorized Laser User with On-the-job (OJT) training. (Oct. 14-18) (Jeff Dooling)
- Recorded additional pump chamber leakage light signals using the leakage PIN diode detector; this time took data from both heads while varying the pump current. Measurements show a slow rise in light signals relative to diode pump current waveforms recorded in June. (Jeff Dooling)
- According to diode experts at Lasertel and Northrup Grumman CEO, diode light power should closely follow the pump current waveform. (Jeff Dooling)

- Worked with Y. Li on regen alignment. (Jeff Dooling)
- Borrowed the PR 430 current probe and collected light and current waveforms together while varying the pump diode current. Saw noise pattern on the pump diode signal even while averaging 16 waveforms. (Jeff Dooling)
- The duration of the noise varied with pump current. (Jeff Dooling)
- Analyzed pcgun phase scan data from July and August 2011 for jitter and sent results to Y. Sun and N. Sereno. Shot-to-shot variation was found to be ± 1.3 ps. (Oct. 14-18) (Jeff Dooling)

ITS Research and Development

- Discussed possible ITS reconfiguration to accommodate outside users. At the moment, a proposal to generate THz radiation is being considered from Alexei. Smirnov of Radia Beams. (Jeff Dooling)

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

- Attended shutdown planning close-out meeting (Karen Schroeder)

Miscellaneous

- Submitted statement of accomplishments for my performance appraisal. (Jeff Dooling)

No Report Submitted

- Michael Borland
- Yong Chul Chae
- Louis Emery
- Randy Flood
- Kathy Harkay
- Stan Pasky
- Vadim Sajaev
- Nick Sereno
- Hairong Shang
- Robert Soliday
- Chun-xi Wang
- Marion White
- Aimin Xiao
- Chih-Yuan Yao
- Yusong Wang
- Ryan Lindberg

- Yin-e Sun