

SSRL - Accelerator Maintenance Day Tasks

3/7/2011

| System | Sub-System | Description | PIC | Shop | Task Person | Forms | Hr |
|--------|-------------|---|-----|------|---|-------|----|
| Access | Conditions: | <p>1 . SPEAR; 6:00 am to 6:40 (scrape beam to 20mA - RF Cav Noise Test 6:00 to 6:10 am (kicker board tests) Booster 6:00 to 6:15 PEM to ZVV White Circuit SPEAR 7:00 to 7:15 PEM to ZVV Dipole PS, 17G Quads Access: 6:15 am Injector Access: 7:00 SPEAR</p> <p>Access Keys: 09:30 to 10:15 am 10 keys from East Pit (Seismic Upgrade Tour)</p> | | | PP1: Beukers Krzaszczak DC3: deLira Gjohnson-PEM | | |
| Access | Conditions: | <p>2 . Recovery: Injector - White Circuit checks and testing - 3 hrs SPEAR - Power Supply Checks - 2 hrs after power restored</p> | | | | | |
| Access | Conditions: | <p>3 . OUTAGES: none</p> | | | | | |
| Access | Conditions: | <p>4 . RSWCF Open: Linac and Booster roof deposited 8:00 to 12:00 noon</p> | | | | | |

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| Booster | Beam Monitoring and Diagnostics | 5. Install and commission SPEAR/Booster Phase Lock chassis (without feedback). | Martin | | | | 1 |
| Booster | Power Conversion | 6. Booster clean up - move old kicker PS to trailer 4137 | Rafael | PEM | DC3: deLira - Gjohnson-PEM | | 1 |
| SPEAR | Power Conversion | 7. SPEAR kicker K1 work to address first pulse problem | Rafael | PEM | PP1: Beukers - Krzaszczak | | 6 |
| Booster | Power Conversion | 8. Booster access required -Measure WC trim capacitance | Rafael | PEM | DC3: deLira - Gjohnson-PEM | | 1 |
| Booster | Power Conversion | 9. Booster White circuit work (WC BIAS supply) | Rafael | PEM | DC3: deLira - Gjohnson-PEM | | 5 |
| Booster | Power Conversion | 10. *Booster White circuit commissioning | Rafael | | DC3: deLira - Gjohnson-PEM | | 3 |
| Accelerator | BCS | 11. Replace BSOIC S8 Remove (no longer needed) BSOICs S10, S11, S13. | Guerra | RPFO | | | |
| Beam Line | MPS | 12. Access for the BL12-ID T/C diagnostic. | Lessard | | | | |

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| LINAC | RF - Linac | 13 . Access LINAC roof top near Mechanical Phase Shifter to Calibrate Forward and Reflect Cable. | Wachter | | | | |
| LINAC | RF - Linac | 14 . LINAC RF Diode Calibration If LIN-DG1 and LIN-DG4 Trigger available on that day. | Wachter | | | | |
| LINAC | RF - Linac | 15 . LINAC System documentation : LINAC Roof top and LINAC Accelerator housing. | Wachter | | | | |
| Injector | Mechanical | 16 . Perform mechanical inspections | Ernst | MSG | 1 MSG tech | | 1 |
| Injector | Mechanical | 17 . Review possible booster ring sextupole install | Ernst | MSG | Ernst, DiMattia, Dell'Orco | | 1 |
| Injector | Mechanical | 18 . If weather permits receive 358 spare klystron | Ernst | MSG | SLAC Riggers/2 MSG techs | | |
| LINAC | Beam Monitoring and Diagnostics | 19 . Replace Stripline coupler / detector module on K2 output. | Wachter | | | | |
| SPEAR | Mechanical | 20 . Perform mechanical inspections | Ernst | MSG | 1 MSG tech | | 1 |

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| SPEAR | Mechanical | 21 . Cavity C and D waveguide and window inspection MSG will remove the miters pieces on the air side of the windows for cavities C and D, supporting the upstream waveguide as necessary before removing these pieces. We will inspect the air side of the windows and the insides of the spool pieces for evidence of arcing, documenting the surface condition with photographs. The vacuum group may use a boroscope to video the waveguide upstream of the miter to look for other evidence of arcing. | Ernst | MSG | 2 MSG tech, Vacuum | | 4 |
| SPEAR | Mechanical | 22 . Review/fab mockup on 18QF2 quadrupole conductor cover | Ernst | MSG | 1 MSG tech | | 1 |
| SPEAR | RF - SPEAR | 23 . SPEAR HVPS maintenance will be performed during the Monday maintenance day. PCD will inspect and replace as necessary semiconductor elements in the power supply. Service request S036325 has been submitted to facilities so that the High Voltage Electricians can lock out the supply at 07:30 on Monday. | Sebek | PCD | PEM, Lam, Larrus | LOTO | 6 |

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| SPEAR | RF - SPEAR | 24 . Inspect and re-terminate, as needed, the fiber optic cables that go from the cavities to the low level controls in B132. We will measure the insertion loss of the fiber cables and if the loss is excessive, we will reterminate the fibers. | Sebek | | Ramirez, Sebek | | 2 |
| SPEAR | RF - SPEAR | 25 . Modify the camera arrangement that we currently have viewing the windows in cavities A and C. We will replace at least one of the cameras with a conventional video camera. We will run the output of this camera to a monitor located in B132. | Sebek | | Ramirez, Sebek | | 1 |
| SPEAR | Alignment Engineering | 26 . Troubleshoot HLS sensor at BL 11 ID. | Gassner | AED | | | |
| LTB | Magnets | 27 . Inspect LTB B2 area to evaluate installation of a new sextupole magnet. | Dell'Orco | | | | |
| LINAC | Vacuum | 28 . Walkthrough | Nalls | Vacuum | | | |
| LINAC | Vacuum | 29 . Leak check RWGN | Nalls | Vacuum | | | |
| LINAC | Vacuum | 30 . Inspect ion pump cables for UV damage | Nalls | Vacuum | | | |
| Booster | Vacuum | 31 . Walkthrough | Nalls | Vacuum | | | |

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| Booster | Vacuum | 32 . Inspect ion pump cables for UV damage | Nalls | Vacuum | | | |
| Booster | Vacuum | 33 . □Installation of new ion pump power supply @Cavity Klystron. | Nalls | Vacuum | | | |
| SPEAR | Vacuum | 34 . Walkthrough | Nalls | Vacuum | | | |
| SPEAR | Vacuum | 35 . Inspect ion pump cables for UV damage | Nalls | Vacuum | | | |
| Beam Line | Beam Monitoring and Diagnostics | 36 . Inspect BL6-2 M0 mirror for piezo cable, pull/install cable if it doesn't exist. | Van Campen | | | | |
| Beam Line | Beam Monitoring and Diagnostics | 37 . Inspect BL7-1 M0 mirror for piezo cable; pull/install cable if it doesn't exist and if there is enough time and resources. BL6-2 has higher priority. | Van Campen | | | | |
| Beam Line | Beam Monitoring and Diagnostics | 38 . Install high-resolution-line TC cable to BL6-2 M0 mirror LCW - I haven't identified the resources for this yet. | Van Campen | | | | |
| Beam Line | Beam Monitoring and Diagnostics | 39 . Testing BL14-3 optics motors. | Harrington | | Harrington +2 | | |

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| Beam Line | Vacuum | 40 . Inspect ion pump cables in alcove for UV damage. | Nalls | Vacuum | | | |
| Beam Line | Vacuum | 41 . Start disassembly old beam lines 3 and 4 in alcove components only no shielding removed. | Nalls | Vacuum | | | |
| BTS | Vacuum | 42 . Walkthrough | Nalls | Vacuum | | | |
| BTS | Vacuum | 43 . Inspect ion pump cables for UV damage | Nalls | Vacuum | | | |
| Accelerator | Facilities | 44 . Seismic Upgrade - Contractor Tours | Stetson | | Stetson, Cheung, Scott | | |
| Beam Line | BL - Mech/Elec/ Checks | 45 . 10-1 mirror-pitch feedback stopper status switches install. | B. Johnson | | Abe Maciel | | |
| Beam Line | BL - Mech/Elec/ Checks | 46 . 6-2 mirror LCW temperature feedback system heater install. | B. Johnson | | Dave Day, Glen Kerr, Bart Johnson. | | |