

# SSRL - Accelerator Maintenance Day Tasks

1/11/2010

| System    | Sub-System            | Description  | PIC        | Shop   | Task Person   | Forms | Hr  |
|-----------|-----------------------|--|------------|--------|---------------|-------|-----|
| Access    | Conditions:           | 1. SPEAR access: 6:30 to 14:00   |            |        |               |       |     |
| Access    | Conditions:           | 2. SPEAR - Power Supply Checks - 2 hrs after power restored  |            |        |               |       |     |
| Access    | Conditions:           | 3. OUTAGES:  |            |        |               |       |     |
| Access    | Conditions:           | 4. RSWCF Open:<br>BL10 Stopper, B118 08G-QF1 and 13G-QF1 fan replacement.                                |            |        |               |       |     |
| Beam Line | BL - Mech/Elec/Checks | 5. Checking water circuits and hardware for agreement with documentation at BL12, BL14, and BL1.         | Harrington |        |               |       |     |
| Beam Line | MPS                   | 6. Reflash SSRL MPS Beam Lines CPU's. Inspect BL4 PPS hutch door switches, add cables for BL9 IG analog. | Lessard    |        |               |       |     |
| Beam Line | Vacuum In A           | 7. Walk through  | Neal       | Vacuum | Bach, Spector |       | 0.5 |
| Beam Line | Vacuum Out Alcove     | 8. Long IP cable inspections for cracking etc, BLs 1, 2, 5, 6, 9 and 11.                                 | Neal       | Vacuum | Bach, Spector |       | 2   |

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| Beam Line | Injection Stoppers | 9. Lubricate the BL10 stoppers and assess their operation.<br>Close time > 7-second BCS timeout.<br>If lubrication solves the problem, we'd finish in 0.5 hours.<br>If pneumatic line and/or junction box need to be rebuilt, it could take 6 hours (for which case we will have RSWCF approved in advance). | Johnson |      | Kerr        | RSWCF | 6  |
| LINAC     | Power Conversion   | 10. LINAC K3 modulator tuning.<br><br>LINAC - no access<br>Booster - no access or other activity that would disable the linac system   | Gierman |      | PCD         |       |    |
| SPEAR     | Computer C         | 11. Fix mcor05 terminal server connection.   | Allison |      |             |       |    |
| SPEAR     | Computer Control   | 12. Reboot RF IOC with EPICS databases built using more modern methods.  | Allison |      |             |       |    |
| SPEAR     | Computer Control   | 13. Move ethernet PS control from RTEMS to linux IOC (b118-iocps to soft-iocps).   | Allison |      |             |       |    |
| SPEAR     | Computer Control   | 14. Reboot IOCs to add PVs and logic for magnet PS current readback vs. DESIMON check.   | Allison |      |             |       |    |

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| SPEAR  | Computer Control | 15 . Reboot linux servers (connie and beldar) for a kernel security patch.   | Allison |      |             |              |    |
| SPEAR  | BCS              | 16 . Install cables for BL12 BCS Interlock.<br><br>PCD Job Order, DJM039, for B118 cable work. (Add Beam Line 12 to the Top-Off BCS Interlock.)  | Martin  |      | PCD         | JSA,<br>LOTO |    |
| SPEAR  | BCS              | 17 . Test BL12 Interlock.  | Martin  |      | Martin      |              |    |
| SPEAR  | MPS              | 18 . will need 1 hour the add new B117 MPS audio warning features.<br><br>Thanks   | Lessard |      |             |              | 1  |
| SPEAR  | RF - SPEAR       | 19 . Klystron window blower inspection:<br>On Wednesday, January 6, the RF system tripped due to low air flow in the system that cools the klystron output window. We would like to perform inspection/maintenance on this system. The work involves checking/cleaning/replacing a filter, cleaning and inspection of the blower unit and associated air passages. All work will be done in B132-101. The estimated time for this task is 2 hours. | Sebek   |      |             |              | 2  |

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| SPEAR  | RF - SPEAR | 20 . RF Cavity tuner drive inspection<br>During the last week of delivered beam in December the control system reported some errors during tuner motion. We will move the tuners while observing their behavior in the ring to see if these errors still exist. Estimated time to inspect the tuners is 30 minutes. If a motor needs to be replaced, the estimated time is two hours.  | Sebek    |      |             |       | 2  |
| SPEAR  | Magnets    | 21 .<br>1) Inspect bus to yoke connections screws (10 x 3/8"-16) and verify they are torqued at 15 ft-lb.<br>2) Inspect 1/4"-20 HHCS on the coil to coil connector plates and verify they are torqued at 30 in-lb (start from center).<br>3) Inspect temperature gages on all dipoles (coils and bus).<br><br>4) Inspect chicane dipole power leads and select hardware needed to replace bad hardware installed on those connections (washers extruded through power lug holes). The new hardware will be installed on the next maintenance day.<br><br>5) Inspect ECD magnets. | Dellorco | MSG  |             |       |    |

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| SPEAR  | Mechanical       | 22 . Tune-Up Dump - measure relative z-location of shielding and TD   | Scott   | AEG    | Imfeld, et al  |       |     |
| SPEAR  | Mechanical       | 23 . General mechanical inspections   | Ernst   | MSG    | 1 techs        |       | 1   |
| SPEAR  | Mechanical       | 24 . Inspect dipole magnet leads (system manager request)   | Ernst   | MSG    | 2 techs        |       | 2   |
| SPEAR  | Mechanical       | 25 . Inspect chicane raft dipole hardware (system manager request),   | Ernst   | MSG    | 2 techs        |       | 2   |
| SPEAR  | Mechanical       | 26 . Remove two lower EPU encoders for BL13 ID  | Ernst   | MSG    | DiMattia       |       | 1   |
| SPEAR  | Power Conversion | 27 . Replace internal fans - 2 power supplies (rack mount) in B118: 08G-QF1 and 13G-QF1. Both power supplies require a RSWCF to do this.              | Rafael  |        | Taylor         | RSWCF |     |
| SPEAR  | Insertion Device | 28 . Check the position of the BL13 EPU 9:30-10am. (This is necessary because of the failure of all the encoders that had been installed on the EPU.) | Rarback |        |                |       | 0.5 |
| SPEAR  | Insertion Device | 29 . Remove two lower EPU encoders for BL13 ID (Encoders not functioning repeatably)  | Dao     | MSG    | DiMattia & Dao |       |     |
| SPEAR  | Vacuum In A      | 30 . Walk through   | Neal    | Vacuum | Pak            |       | 0.5 |

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| SPEAR  | Vacuum In A 31 . | 9S-IG1 troubleshoot                                     | Neal    | Vacuum     | Pak                    |       | 1  |
| SPEAR  | Vacuum In A 32 . | 12S-IG1 Long cable trouble shoot                        | Neal    | Vacuum     | Ortiz, Pak             |       | 3  |
| SPEAR  | Vacuum In A 33 . | BTS redline updates                                     | Neal    | Vacuum     | Jacobson               |       | 2  |
| SPEAR  | Facilities 34 .  | Seismic Upgrade - inspect BTS and BL4 areas.            | Cadapan | Facilities | Machi Chen,<br>Cadapan |       |    |
| SPEAR  | Facilities 35 .  | Seismic Upgade - coordinate survey of BTS and BL4 areas | Cadapan | AEG        | Imfeld, et al          |       |    |