**** SPEAR/Beamline Maintenance list for Tuesday 1/6/04 ****

Guidelines for the SPEAR 8 hour maintenance/down period.

- Beam dumped at 06:00 for maintenance.
- Access ~06:30
- Lock & Tag as necessary upon entry.
- Remove L&T upon leaving!
- Check in with Operations prior to access and after access.
- Inform SPEAR operations of status maintenance task at end of each day.
- The Accelerator Systems Managers MUST be involved with all activities related to their systems.
- SPEAR Operations & Accelerator System Managers MUST confirm that systems are ready for operations prior to 14:00 on Monday

**** SPECIAL instructions:**
**** ES&H Reminders:**

- Lock Out Tag Out as necessary
- Outside contractors complete SLAC Pre-Work Hazard Analysis Form

	GTF:		
1.	GTF modifications…	J. Schmerge	8 hr
	Facilities:		
1.	SPEAR roof maintenance	Fac	4 hr
	Controls:		
1.	Check out the remote control and the status bits for BL7 Insertion Devices [control system and access required]	Dao, Wallters	3 hrs
na	Calibrate BL5 horizontal encoder [control system and access required]	Dao, Wallters	1 hr
na	Check out the motion control for BL5 EPUs {control system and access required]	Dao, Wallters	2 hrs
2.	Hi-pot trim coils on Insertion Devices (Each area to be roped off and no personnel working in area while hi-pot is in progress.)	Dao,Rafael	2 hr
3.	Check cables to Tune Kicker – 1S	Martin	
4.	Investigate noise on DCCT – 1S	Martin	
	Electrical:		
1.	Install telephone boards	Guerra	6 hr
2.	MX-BPM time stamp configuration.	Wachter	

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3.	SPEAR3 kickers High Voltage Cables Inspection.	Wachter	
4.	The following task requires that the ring is secure to allow testing of the dipole power supply following replacement of the controller. 1. Dipole: Replace chopper controller **2.** Test after lockup	Bellomo, Lipari, Johnson	 1hr 1hr
5.	Coordinate with Vacuum Group TSP operations: TSP Power Supply response tuning. Fine tune the TSP PS with a dummy load. Designate a time when TSPs are not required and ring is secure:	Antonio deLira	4 hr
6.	Cable tray covers to be installed by Palmer Electric.The approximate start time is 7:30AM	Baltazar (UTR)	4-6 hr
7.	1. B118 Rack 45: Install front panels in rack, support cables in rack and clean.	Johnson	2-3 hr
8.	1. The following TSP's reported 12/29/03 as failed: 02G-TSP1 13G-TSP1,2,3,4 14G-TSP4	Ortiz, Vac	
9.	2. Complete installation of LCW Monitoring, install cables in B118	Taylor and Lessard	3 hours
10.	BOOSTER:- Install new cooling fan and replace exhaust fan in White Circuit Pulser Power Supply.	Taylor, Johnson, Avilla-Kintz	6 to 8 hours
	MECHANICAL:		
	SPEAR:		
1.	Mechanical inspections, to include checking mechanical magnet bus connections for signs of overheating, magnet coils for signs of overheating and LCW leak inspections, check pneumatic system pressure settings.	Woodcock	1-hr
2.	Install Insertion device chain covers..BL9, BL10, BL11	DiMattia, Woodcock	7-hrs
3.	LCW & air systems transducer reading verifications to MPS, smart meter calibration if necessary.	Ben Poling	3-hrs

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4.	LCW temperature RTD reading verifications to MPS.	Ben Poling	3-hrs
5.	SPEAR LCW flow measurement	Ihi/MSG	4 hr
6.	HCW - install automatic conductivity control pump, transformer, re-start system	Shin, Ernst, etc	2 hr
7.	Walk thru inspections of BL front ends.	BLD/x-ray	1 hr
8.	Modify and reinstall second 100 mA min. gap hardstops on BL 4 and 7 ID's, wire limits, do not move magnets or read encoder, install lock	Post/Ringwall/Evans	4 hr
	RF:		
1.	RF Klystron Power Supply 1. Take a sample of the oil and test for dielectric integrity 2. Hipot the crowbar stack 3. Place ferrite cores on the termination tank coax cables to suppress noise that might be picked up on the rather long runs between the termination tank in B134 and the Hoffman control box in B118. 4. Check the wiring at the klystron and termination tank CTs to ensure that they are not switched (if they were switched a klystron arc would be perceived as a power supply fault and vice-versa).	PCD, Bellomo	4 hr
	Vacuum:		
1.	SPEAR3: Ring walkthrough, visual inspection all ring and BL vacuum components. --	Pak, Neal, Wiertel	.5 hr
2.	SPEAR3: Re-arrange Vacuum Zone 2 IP patch panels (IP supplies P5 and P6). Note: Marked up drawings required by Widmeyer showing modifications for drawing updates	Pak, Morales	1 hr

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3.	SPEAR3: Add thermocouples onto specific bellows per N. Kurita spreadsheet. Identify location – KURITA Ref plane availability – ORTIZ Routing & connection to ref plane (EDM (Taylor, Johnson) Connection to bellows – VACUUM	Jacobson, Kurita	4 hrs
4.	SPEAR3: Test collector cables on gauges that are turning off (4 cables/gauge), compare 4ma and higher emission current gauges to identify, determine where loss is occurring, and determine corrective actions.	Ortiz, Pak, Neal	6 hrs
5.	SPEAR3: Investigate analog readback cable problems and computer interface (CAMAC) for several ion pump power supplies.	Pak, Ortiz, Morales	3 hrs