

**C-A SCHEDULED SHUTDOWN –WEDNESDAY March 17, 2004,**  
**0700-1500HRS**

**RESULTS – 20000HRS., MARCH 17, 2004**

R. Zaharatos – 1500hrs. Tuesday March 16, 2004

**ACCESS TO MACHINE AREAS**

**AGS - RESTRICTED ACCESS**

**BOOSTER – NO ACCESS**

**RHIC - RESTRICTED ACCESS**

**ATR - CONTROLLED ACCESS**

**SEB SWITCHYARD - RESTRICTED ACCESS**

**LINAC – NO ACCESS**

**Operations Schedule for Maintenance**  
**Mar 17th, 2004**

<b>Time</b>	<b>Job</b>	<b>personnel</b>
<b>0600:</b>	<b>Begin LINAC prep for shutdown.</b>	<b>1 LINAC</b>
<b>0630:</b>	<b>Begin RA LOTO AGS. Close vacuum valves. Leave keys out E20 snake, Ray Z to LOTO in Supplemental Lock Box for testing.</b>	<b>2CAS</b>
<b>0630:</b>	<b>Turn Booster devices off- RF included. Close Vacuum Valves in Booster.</b>	
<b>0700:</b>	<b>RHIC to RA all but dumps, RCA for dump survey. LINAC feed work commences- PUT NOTE ON MCR BROADCAST “LINAC DARK” etc.</b>	<b>1HP,1MCR.</b>
<b>0700:</b>	<b>Open SWYD RA for J. White et.al.</b>	
<b>0730:</b>	<b>HP to enter AGS for RA Survey (F10 First). Beam Components to enter with HP and go to F10. 1MCR/CAS,1HP</b>	

**0715: After HP Completes RHIC survey, all RHIC to RA.**

**0730: KAB to Move RS LOTO to Booster BS. Remove SEB Tags (F5 and F10).**

**0830: RA Access to AGS may commence after survey complete and approved barriers around E20 snake. Access to PHENIX fenced berm and 1008 roof for A/C inspection/repair**

**1500: Begin Sweep of the AGS (if access is not delayed). Restore SEB RS LOTO remove from Booster Extraction.**

**1600: LINAC/Booster power on? Begin RHIC sweeps as per G. Ganetis.**

**1700: Begin beam restoration work.**

**NOTES: NSRL to Resume Thu AM, PP and BLIP THU PM.**

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**JOBS STATUS CODES:** C complete IP in-process RS reschedule  
CAN cancelled \* additions

## **RHIC JOBS**

### **COLLIDER P.S. GROUP - ZAPASEK/BRUNO**

#### **HIGH PRIORITY**

**Tunnel work: ALL COMPLETED**

#### **Snake Work**

- 1) Install and connect new voltage tap monitoring wires in alcoves 3c, 7c, 9a.
- 2) Install new setpoint cards for snakes in 9c and remove originals. Remove setpoint cards from alcoves 5c, 7a, 7c, and 9a. Put these p.s.'s in the OFF state after removing setpoint cards.
- 3) Put labels on all snake and rotator current reg cards that error adjust = 3v and error delay = 1.67V. The label should say the new card should get adjusted to be the same after being swapped out. We need to access alcoves 3c, 9c, 5c, 7a, 7c and 9A for this work. **HOLD OFF ON THIS, SETTINGS NOT PERMANENT YET.**

#### **Correctors**

Install more correctors with fixes to test them out. Alcove 7c yi7-octf node card cable swap out. Save bi12-qs3 for next time to swap out and check.

#### **Gamma-T**

- 1) Yo12-qgt still trips off. Try looking at node card cable and/or 3u chassis internal connections. **(Gregg and Tom).**

## **Service Building Work: ALL COMPLETED**

### 6000A Quench Switches

- 1) Check yellow Current monitoring chassis and shunts in all 4 quench switches (**Gregg and Tom**).

### IR supplies and QPA's

- 1) Check connections between p.s. and qpa of b2-dh0. (**Gregg and Tom**)
- 2) Install more new qpa fan switches in 1012A (**Do not do now**)

### Joe P Software testing

- 1) Possibly run TAPE and watch if it changes command to 6000A quench switches from On to Charge.
- 2) Test New Timing resolver software. This new version will calculate the delays of each signal after the trip. (**Wing and Joe P**).

### Jonathan Laster Software Testing

- a. Test new snapshot software that will store "Local/no ps illegal state" (**Don**)

### Main Power Supplies (Carl, Fred)

- 1) Work on Reg error problem on blue quad. This will require the links being up.
- 2) Fix overshoot on mains.
- 3) Check out thermocouples that may have become insulated by thermal grease on blue mains.

### Correctors

- 1) Run up remaining alcoves to 10amps and come up with Resistance of load. (**Don**)

### ATR p.s.'s

Open up XD31T and find out why negative MADC current readback does not work. (**Don &**)

### Medium priority

Replace the QPAIC-1B at 1002B. This particular QPAIC generates fault alarms intermittently. (**Gregg and Tom**)

### Low priority

- 1) Replace the Y9 SCR current readback chassis with the spare that had the right resistors installed.
- 2) Install one production type Voltage Lead Monitor board on Q6 in sector 10.

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## **Beam Components and Instrumentation – D. Lehn**

- C 1. Pick-up tank in sect. 11 - test inchworm controls
- C 2. Sect. 7 BPM – continue installation of 80 cables for 7C Alcove move.
- C 3. Gap Cleaning – Check Chiller Reservoirs
- C 4. BPM – Investigate BPM Module problems
- C 5. BPM – Remove modules from 10\$M & 14\$M Buss
- C 6. BPM – Phase match damaged cables – total 2
- C 7. Jet Polarimeter – continue setup for upcoming run
- C 8. MBPM – Fine Tuning
- C 9. MBPM – Schottky Caity – Fine Tuning
- C 10. MBPM – Two Meter Kickers – Fine Tuning
- C 11. MBPM – QMM(Quad Monitor) – Fine Tuning

## **Controls Hardware(Venegas)**

- C 1. 1004A and 1004B – investigate RF rebucketing problem(Koropsak)
- C 2. Check memory board in cfe-4b-blm1
- C 3. Investigate 1006B quench link problem(Michnoff/Koropsak)
- C 4. MADC problem in cfe-5c-ps2

### **Crvo Controls(Masi)**

- C 1. Check zero drift of lead flow controllers on the Snake Magnets in Svce. Bldgs..

### **High Frequency Instrumentation – B. Sikora**

- C 1. Sect. 1 & 2 moveable BPM Schottky Cavity and Two Meter Kickers – access for fine tuning required after beam start-up.
- C 2. QMM(Quad Monitor) – will also require access for tuning

### **Power Distribution(Nehring)**

- C 1. 1006B UPS – Inspect power panelboard and the external bypass switch. We found five loose connections in the bypass switch. The extra 250 Kcmil ground wire for the tray should be completed in a couple days.

### **Pulsed Power(Zapasek)**

- C 1. Abort Kicker Blue #3 PFN – replace tube
- C 2. Inspect capacitors in Blue Abort Kicker

### **RF Group – N. Laloudakis**

- C 1. Troubleshoot IR sensor for X2
- RS 2. Change one Yellow Storage Cavity window
- C 3. Investigate Yellow Landau problem

### **Vacuum Group – S. Gill**

- RS 1. Change one Yellow Storage Cavity window
- C 2. Sect. 1010 Sublimate: g9 & g10 (Both pwx & pw1)
- C 3. Sect. 1006 Sublimate: g5 & g6 (both pwx & pw1)
- C 4. Sect. 1002 Sublimate: g1 & g2
- C 5. Sect. 1008 sublimate: ir 8
- C 6. Re-install rebuilt PPA's
- C 7. Sniff the JT valves and the power leads for helium loss ???  
(approx. 15,000 CF per day losses... T. Nicoletti)
- C 8. Sect. 8 Re-set gauge controller sector 8 at Q9 (turn off, then on, then reset as yo8-cc-pc9 through PET)
- C 9. Sect. 9 Re-set gauge controller sector 9 at Q14 (turn off, then on, then reset as bi9-cc-pil4.2 through PET)

### **Water Systems Group**

- C 1. Phobos 1010 – Install new Twr Strainers
- C 2. RHIC STAR, 1006 - MCW System switch to Chiller Cooling

### **Other RHIC Access Jobs**

#### **RHIC/FES Division – A. Pendzick**

- C **STAR** - Access for experimenter(>8hrs)

- C **PHENIX** - Experimenter access(4hrs)  
Air-conditioner inspection/repair(requires access to berm and 1008 roof)  
(Pearson)
- C **BRAHMS** - Experimenter access(>8hrs)
- C **PHOBOS** - Experimenter access(<4hrs)  
Helium leak check(Vac. Group.)

### **AGS(external)**

- C 1. Troubleshoot the datacon networks for A3, D3, I3, J3 and J13 sector valve alarm problems (currently masked)
- IP 2. Vacuum – A10, E18, and H10 clear DNA read-backs.
- RS 3. Repair H10 area storm drain pump(Diaz/P.E.)
- C 4. Drain rain water from L18A wiring trench and repair sump pump(P.E.)(Bad pump, temporary pump installed)
- C 5. RFMG, 929 - Replace Ethernet boards on Sub PLC unit(Water Sys.)
- C 6. TWR 1-911 - Switch Twr Pumps(Water Sys.)

### **AGS RING**

- 1. **E20 Snake**
- C Install new buss covers and have them approved by J. Sandberg.
- C Barrired testing to investigate noise on readback.
- C Check survey
- C 2. Back-flush F5 Septum and F10 ejector. Refill F10 buss and check for leaks.
- C 3. South Wiring Tunnel sprinkler system – investigate reason for valve in closed position(PE Plumbers/J. Lavesque)
- RS 4. Ring Grounds – Inspection only if ring on restricted access (HP Survey)
- C 5. Ring Video – Check Following Locations & repair as necessary  
(H20/E15/CF011/CF100/F5/F10) F5/F10 will be from aisle
- C 6. C15 Polarimeter – Continue setup for upcoming run
- C 7. Measure for trench covers at F8 and I10.
- C/RS 8. Ring Motion – Check Following Locations & repair as necessary  
(H20/E15/CF011/CF100/F5/F10/Splitters). F5/F10 will be from aisle.(F5 DNS limit switch needs to be replaced)
- C 9. Turn-on testing of SEB Switchyard magnets
- C 10. PUE Pre-Amps – Investigate problems with F20 & G7 (HP Survey)
- CAN 11. Assist with C-15 Polarimeter work (Vacuum)
- C 12. Assist with repair / replace E-15 IPM motor (Vacuum)
- C 13. AGS-913 - MM PSI Check across from ATR injection line, H-14 area on Cat Walk(Water Sys. Grp.)
- C 14. Powered testing of F5 Septum and F10 Ejector.
- C 15. Station IJ – replace feedback amplifier.

## BOOSTER RING

### Vacuum

- RS 1. Check & drain air lines of water(Vac. Grp.)
- RS 2. Ring Grounds – Inspection only if ring on restricted access

## BOOSTER EXTERNAL

### RS BPM's/ Controls Grp.

- 1. Investigate A3(open) and C3(shorted)
  - 2. Filter assemblies above racks
  - 3. Install air filter assemblies.
  - 4. Repair exhaust fan on C Sect. Rack
  - 5. Phase match B4 cables
  - 6. Re-Phase Match C5 Cables
  - 7. Remove items from Ring (Only if Ring is open)
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- C 6. Controls 930A – update Gate Array in PSI's(Buxton)
  - C 7. Booster power off at 930 ueb... restore vacuum following scheduled outage ... stay late? (Vacuum Group)

## LINAC

- C 1. Clean Sub-Station 3L contactor(Nehring)(Requires power outage to all of 930 including Booster equipment) – **Problem turned-out to be tracking on the insulation of the jumper cables. All were replaced.**
- RS 2. HITL Crossover – check connections on ttb-29-i.g.-039 and 064(Vac. Grp.)
- C 3. LINAC, 930 - LINAC to shut down power, then restart water systems after substation repairs(Deboer)

## SEB SWITCHYARD

- C 1. Turn-on testing(White Sheets) of SEB Switchyard magnets for D Line run.(Anderson) Requires moving the Radiation Safety LOTO to Booster Extraction(K. Brown)**SEB SW. Yd Cave section completed/resched. AGS)**
- C 2. DF 146 – Reinstall Flag Drive ( Instrum. & Beam Comp.)
- IP 3. Checkout/Repair Video for AF124/DF146/DF215 (Instrum. & Beam Comp.)
- IP 4. Checkout Motion for AF124/DF146/DF215 (Instrum. & Beam Comp.)