

***RHIC QLI – Power Supply / Diagnostic Reports for (p⁺ Run 2001)
November-26 thru December-02***

Monday: Nov 26, 2001

End of the (au) Gold Heavy Ion Run

Maintenance Day; work performed on power supplies and other equipment upgrades for Polarized Proton Run.

Tuesday: Nov 27, 2001

Maintenance Day continues for Polarized Proton Run.

Wednesday: Nov 28, 2001

Maintenance Day continues for Polarized Proton Run

Thursday, Nov. 29, 2001

Maintenance Day continues for Polarized Proton Run

NOTE: The run name has been changed to rhic_pp_fy02.

The RHIC maintenance ended this shift at 14:10. As of the end of the shift, beam is surviving to the Y-line. M. Brennan and K. Smith reported that the the AGS to RHIC synchro is functioning, but they are still making minor adjustments.

The following Quenches are not reported as the Rings were not yet handed over for Operations:

1500 -- RHIC quench link interlock during the down ramp.

1540 -- RHIC quench link interlock during the down ramp. D. Bruno reported that the supplies were not ramping as expected, for the given slow factor. For the nonce, the slow factor value for the down ramp has been increased.

1720 -- D. Bruno has provided instructions for the new slow factor settings when ramping the RHIC. A. Marusic is making the proper adjustments in the Sequencer.

18:22:19- P⁺ Circulating in RHIC

Friday: Nov 30, 2001

Nothing to report, machine setup continues, people are inspecting the Westinghouse Power Supply, AGS.

Saturday, Dec. 01, 2001

Nothing to report, machine setup continues as work is performed on the Westinghouse Power Supply, AGS.

Sunday, Dec. 02, 2001, Beam Abort 7b-ps1, QLI in Yellow ring, 7b-ps1 (Actual Time 09:41:52 +2829980)

QPA Faults: none, yellow off

QD Alarms: (7b-qd1) Y6DSA5_A4VT, Tq-23 (all others also indicate a negative Tq value). Also found Aux. 4b-qd2, Y4TQ6_VT was still indicated meaning that it wasn't cleared from 11-29-01 @ 19:17:25.

DX Heaters: none fired

QdRealQuench: none listed

Postmortems: shows the y-dmain power supply flat current and voltage begin to rise up while the main current begins to drop off all before T=zero.

Qdplots: YDMC=473amps (Injection current) a glitch occurs at -0.85 to -0.65seconds before T=0, then dropping off at -0.033seconds. The V-tap Y6DSA5_4VT also drops negative at -0.01685sec before T=0.

Beam Loss Monitors: at sector 7 all looks good, sector 10, low level of 1433rads/hr at b10-1m3.5-dmp and higher at sector 9 with 4683 rads/hr at y9-1m3.5-dmp indicating that a dirty dump did not occur.

Quench Status: at Injection current

Reason: y-dmain power supply problem, Carl Schulthiess, who is in for PLL work, suspects bad connection to the DCCT in the Yellow main dipole power supply; he will make an adjustment prior to the quench recovery. He reports that he's diagnosed the Yellow QLI problem to be an issue with the DCCT losing lock

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Sunday, Dec. 02, 2001, Beam Abort 10a-ps3.A, QLI in Yellow ring, 10a-ps3.A (Actual Time 10:41:56 +3441714)

QPA Faults: none, yellow off

QD Alarms: none (all running)

DX Heaters: none fired

QdRealQuench: none (all running)

Postmortems: shows power supplies running near zero currents, YMDC at park making them difficult to determine.

Qdplots: main power supply current approximately 50amps.

Beam Loss Monitors: sector 9 and 10 look okay, all others normal.

Quench Status: not real

Reason: Looking at the Message Log for the Yellow Quench Recovery Program, found that there was a trip on turn on. There were also no power supply faults indicated in the alarm log. MCR was able to recover on the next try so this problem is labeled Unexplained at this time.