

QLI – Power Supply / Diagnostic Reports for 11-05 thru 11-11-2001

Monday: 11-05, Beam Abort, 8b-ps1, **QLI: Yellow ring, 4b-time.B** (Actual Time 00:52:16 +2970208)

QPA Faults b4-dhx-qp CROW

QD Alarms no negative Tq's

DX Heaters did not fire

QdRealQuench none listed

Postmortems show y-dmain oscillating -0.21sec before T=zero

Qdplots N/A

Quench Status not Real

Reason YELLOW MAIN DIPOLE P.S. glitch/software during the down ramp. (comment by...jak) -- It appears that the yellow dipole mains are doing what the blue mains used to do (switching between the flattop and ramp supply) when ramping down with the BMMPS on.

Monday: 11-05, Beam Abort, 8b-ps1, **QLI: Yellow ring, 5b-ps1** (Actual Time 00:52:36 +375455)

QPA Faults b6-dhx-qp CROW

QD Alarms no negative Tq's

DX Heaters did not fire

QdRealQuench none listed

Postmortems show several dated 1969 but also bo6-qf8-ps error oscillating -1.9sec before T=zero

Qdplots N/A

Quench Status not Real

Reason 00:50 QLI during the down ramp. Main P.S.'s regulator not working.

Monday: 11-05, **Yellow QLI, 2b-ps1** pulled the permit (Actual Time 03:31:28 +27957)

QPA Faults yo1-qd3-qp CROW

QD Alarms no negative Tq's

DX Heaters did not fire

QdRealQuench none listed

Postmortems show several oscillate before zero, but y2-q7-ps Iref dropped -0.0625sec before T=zero

Qdplots N/A

Quench Status not Real

Reason **y2-q7-ps** possible current reg card as the Iref dropped before T=zero

Monday: 11-05, Beam Abort, 2b-ps1, **QLI Yellow ring, 2b-ps1** (Actual Time 04:03:48 +1578773)

QPA Faults none

QD Alarms (2b-qd2) Y1QFQ2VT Tq-24

DX Heaters did not fire

QdRealQuench none listed

Postmortems show several oscillate before zero, but y2-q7-ps Iref dropped -0.725sec before T=zero

Qdplots N/A

Quench Status not Real

Reason **y2-q7-ps** possible current reg card as the Iref dropped before T=zero

Monday: 11-05, **QLI Blue, 10a-ps3.B** pulled the permit (Actual Time 04:33:32 +1779014)

QPA Faults bi9-dhx-qp CROW

QD Alarms no negative Tq's

DX Heaters did not fire

QdRealQuench none listed

Postmortems show nothing unusual

Qdplots N/A

Quench Status not Real

Reason, Blue QLI during the hysteresis ramp **Dump Switch BLUE, B9DQPSW**

The Quench Recovery script halts due to an over current fault in the quench protection switch B9DQPSW. MCR is contacting G. Ganetis. Switching mode to protons. G. Ganetis advises to call W. Louie who requests MCR to check which SCR has zero voltage. CAS is assisting N. Kling at 1010A. SEB is on.

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Monday: 11-05, Beam Abort, 10a-ps3.B **QLI Blue ring, 10a-ps3.B** (Actual Time 05:23:24 +1553484)

QPA Faults bi9-dhx-qp CROW

QD Alarms no negative Tq's

DX Heaters did not fire

QdRealQuench none listed

Postmortems show nothing unusual

Qdplots N/A

Quench Status not Real

Reason **Dump Switch BLUE, B9DQPSW** Gregg Heppner and Dan Oldham called in at W. Louie's request to replace the firing board for the faulty SCR. Found nothing wrong with scr circuit #2, checked for loose connections and tested to verify SCR's 1 & 2 where not shorted or open with Wing. Changed firing card #2 just encase it was an intermitting fault. George's notes later say that both switches were given the OFF CMD.

Monday: 11-05, Beam Abort, 4b-time.B **QLI Yellow ring, 4b-time.B** (Actual Time 10:58:28 +1138465)

QPA Faults none

QD Alarms no negative Tq's

DX Heaters did not fire

QdRealQuench none listed

Postmortems show y-dmain ps oscillating -0.125sec before T=zero

Qdplots N/A

Quench Status not Real

Reason Yellow Main Dipole P.S., glitch/software

Monday: 11-05, Beam Abort, 4b-time.B, **QLI Yellow ring, 4b-time.B** (Actual Time 12:02:56 +3228183)

QPA Faults b4-dhx-qp CROW

QD Alarms no negative Tq's

DX Heaters 4b-ps4.A1, A2, B1 & B2 all FIRED, (set state yellowed out)

QdRealQuench (4b-qd1) B4DRDX_VT & B3DRDX_VT (also) qdev: Y2DSA5_A4VT, Y2DSA4_A3VT, Y3DSA3_A2VT, Y3DSA2_A1VT, Y2QDA3_A2VT & Y3QDA2_A1VT

Postmortems show b-dmain ps oscillating -0.102sec before T=zero

Qdplots N/A

Quench Status **REAL QUENCH**

Reason Yellow Main Dipole P.S., glitch/software

The Yellow quench link tripped twice on the ramp down; on the last hysteresis ramp Blue also tripped and investigate and replace the current regulator card on y2-q7.

fired DX heaters in sector 4. We await clearance from Cryo before bringing on systems.

Monday: 11-05, Beam Abort, 4b-time.B, **QLI Blue ring, 4b-time.B** (Actual Time 12:02:56 +3719277)

QPA Faults b4-dhx-qp CROW

QD Alarms no negative Tq's

DX Heaters 4b-ps4.A1, A2, B1 & B2 all FIRED, (set state yellowed out)

QdRealQuench (4b-qd1) B4DRDX_VT & B3DRDX_VT (also) qdev: Y2DSA5_A4VT, Y2DSA4_A3VT, Y3DSA3_A2VT, Y3DSA2_A1VT, Y2QDA3_A2VT & Y3QDA2_A1VT

Postmortems show y-dmain ps oscillating -0.125sec before T=zero

Qdplots N/A

Quench Status **REAL QUENCH**

Reason Blue Main Dipole P.S., glitch/software

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Monday: 11-05, Beam Abort, 2b-ps1, **QLI Yellow ring, 2b-ps1** (Actual Time 16:14:44 +3242801)

QPA Faults none

QD Alarms only 2b-qd2 shown, no negative Tq's / (10a-qd2 cmdFlag pgnStatus) appears in red

DX Heaters did not fire

QdRealQuench none listed only qdev: Y2DSA5_A4VT, Y2DSA4_A3VT, Y3DSA3_A2VT, Y3DSA2_A1VT, Y2QDA3_A2VT & Y3QDA2_A1VT

Postmortems show low currents, difficult to read

Qdplots N/A

Quench Status not Real

Reason, power supply y2-q7 had a reference of zero, upon tapping front of current reg card, ref shot up causing QLI.

Changed the current regulator card, all is okay (found bad relay on the current reg card)

RHIC power supply bi9-tq4 tripped during a store and was restored remotely. Twice, output fluctuations were suspected of y4-dh0. CAS has taken local readings of the supply reference versus output and found them to be in closer agreement than the remote readbacks. D. Bruno is currently reviewing the data from recent ramps and periods when the alarm display reported "range errors".

1840: Physics off. Machine Setup. The Permit Link was pulled by 10a-blm1 & 2, and an alarm was seen for y4-dh0 range error.

20:07:36 comment by...Jim -- It looks like we had a hiccup. A range error alarm for y4-dh0 appeared during the "event", and also at the time the previous store was lost. D. Bruno is investigating from home. (Note: replacing the current regulator card on 11-08-01 fixed the problem).

20:34:29 comment by...Jim -- A trip of bi9-tq4 had a deleterious effect on the beam and ZDC rates, It was restored remotely.

Monday: 11-05, **QLI Blue ring, 4b-time.B** (Actual Time 23:57:04 +1096073)

QPA Faults b4-dhx-qp CROW

QD Alarms show no negative Tq's

DX Heaters did not fire

QdRealQuench none listed only qdev: Y2DSA5_A4VT, Y2DSA4_A3VT, Y3DSA3_A2VT, Y3DSA2_A1VT, Y2QDA3_A2VT & Y3QDA2_A1VT

Postmortems show b-dmain ps oscillating at -0.28sec switching between ramp and flattop currents.

Qdplots N/A

Quench Status not Real

Reason, Blue QLI during the down ramp. 4b-Time.B pulled the permit. Blue Dipole Main P.S. glitch/software

Shift Summary: At least we had one halfway decent store. Don and company will have to look at **bi9-tq4** and **y4-dh0** in the near future. We had some difficulty doing gap cleaning in Blue, and were forced to stop each time we tried due to high bunched beam losses elsewhere (ie. the dump). [Jim](#)

06:53:08- J. Morris informs MCR that the dho data is logged in the Logview. The problem with **y4-dh0**, mentioned in the previous shift can be seen the LogView data. The power supply reference current drops out for a period of time and mysteriously comes back. But we did not have any problems with y4-dh0 during the owl shift. [Sanjee](#)

RHIC gamma-tr power supply **bo2-qgt** was found off this afternoon and turned on remotely. (May have a possible Control Card failing, off push button, will need tunnel access if this problem persist).

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Tuesday: 11-06, Beam Abort, 8b-ps1 dropped {Loss Monitor 1} **QLI Blue ring, 11b-ps1** (Actual Time 07:06:32 +121816)

QPA Faults b12-dhx-qp CROW

QD Alarms show (11b-qd1) B10DSA5_A4VT Tq-24

DX Heaters did not fire

QdRealQuench (11b-qd1) B10DSA5_A4VT and (10a-qd1) B10QFQ4_6VT also listed qdev: Y2DSA5_A4VT, Y2DSA4_A3VT, Y3DSA3_A2VT, Y3DSA2_A1VT, Y2QDA3_A2VT & Y3QDA2_A1VT

Postmortems

Qdplots show B10DSA5_A4VT RAW dropped -0.08167 before T=zero

Quench Status **REAL QUENCH**

Reason, Blue QLI while initiating gap cleaning. PostMortem data is unavailable for this QLI, but it appears that a loss monitor in Sector 8 pulled the permit, which then caused a quench near the dump in Sector 10 due to the debunched beam in the abort gap. As Cryo sees no interlocks, we will start Quench Recovery. After restoring magnets to park, Cryo reports seeing a rise in temperatures around 10q6, and the re cooler is emptying. At their request we are ramping back to zero. 08:07:16 comment by...Ray -- This beam abort happened during gap cleaning. Operations could not find a blue horizontal tune, and when to an occupied bucket to measure a tune. This kicked the beam into the collimator, and the store was history. Procedure was followed. An addition will now be made to retract the collimator when moving to an occupied bucket to measure the tunes, and reinsert when done.

Wednesday: 11-07, Beam Abort, 12a-ps1.A; **QLI in Blue ring, 11b-ps1** (Actual Time 04:04:16 +1428600)

QPA Faults b12-dhx-qp CROW

QD Alarms show (11b-qd1) B10DSA5_A4VT Tq-24

DX Heaters did not fire

QdRealQuench (11b-qd1) B10DSA5_A4VT and (12a-qd1) B11QFQ3_VT

Postmortems several indicated a voltage drop and current rise before T=zero

Qdplots show B10DSA5_A4VT (RAW) dropped -0.0669 before T=zero

Quench Status **REAL QUENCH**

Reason blue beam dumped, BLM (b11-1m3.1) indicates high losses

CR is waiting for sector10 DX magnet temperature to cool down, and sector 9 & 10 re-coolers to fill up.

Wednesday: 11-07, Beam Abort, 12a-ps1.A; **QLI Blue ring, 12a-ps1.A** (Actual Time 04:38:52 +2192897)

QPA Faults none

QD Alarms show no FEC/DSP

DX Heaters shows 2b, 4b, 6b, 8b, 10a & 12 all fired

QdRealQuench none listed (running)

Postmortems not available, they show the year 1969.

Qdplots

Quench Status not real

Reason, RTDL chassis was rebooted. Whenever it gets rebooted the link comes down.

Wednesday: 11-07, Beam Abort, 7b-ps1; **QLI Blue ring, 7b-ps1** (Actual Time 05:51:40 +2174092)

QPA Faults none

QD Alarms show no negative Tq's

DX Heaters did not fire

QdRealQuench none listed

Postmortems half not available as they show the year 1969, others look normal.

Qdplots

Quench Status not real

Reason Possible bad permit module because blue and yellow (see next QLI) went at the same time.

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Wednesday: 11-07, Beam Abort, 7b-ps1; QLI Yellow ring, 7b-ps1 (Actual Time 05:51:40 +2174092)

QPA Faults none

QD Alarms show no negative Tq's

DX Heaters did not fire

QdRealQuench none listed

Postmortems half not available as they show the year 1969, others look normal.

Qdplots

Quench Status not real

Reason Possible bad permit module because blue and yellow (see previous QLI) went at the same time. These two quenches occurred when the beam was et injection.

Wednesday: 11-07, Beam Abort, 7b-ps1; QLI Blue ring, 7b-ps1 (Actual Time 10:09:24 +3394069)

QPA Faults none

QD Alarms (7b-qd1) B6QFA3_A2VT Tq-24 with multiple others listed.

DX Heaters did not fire

QdRealQuench none listed

Postmortems show b8-q6-ps Iref spiked up at -0.04sec..

Qdplots

Quench Status not real

Reason comment by...fulvia -- Blue Main Quad taking off at injection (literally - out of the blue). That caused a quench at injection. Turns out that was Joanne testing the liveGamma feature in the decoupling scripts....Please everybody, check with MCR before testing.

10:31:13 comment by...fulvia -- Beam study time is no testing time or software release time - for any action that can possibly affect the beams CHECK WITH MCR.

Thursday: 11-08, Beam Abort, 10a-ps3.A {Loss Monitor 1; QLI Yellow ring, 8b-ps1 (Actual Time 02:53:32 +3042090)

QPA Faults none, yellow off

QD Alarms (8b-qd2) Y8QFQ3_VT Tq-24

DX Heaters did not fire

QdRealQuench (8b-qd2) Y7QFQ3_VT, Y8QFQ2_VT, Y8QFQ3_VT and (9b-qd1) Y9DSA3_A2VT, Y9DSA2_A1VT

Postmortems indicate slight changes in current, voltage and error prior to T=zero

Qdplots verify Vtap Y8QFQ3 drop before T=0

Quench Status **REAL QUENCH**

Beam Loss monitors show several high losses

Reason cfe.7a-ps2 had a suspended task error, and RHIC magnets could not be ramped down to park. MCR followed the instructions in the Controls home page and rebooted the FEC, but the Wfgman could not be initialized. L. Hoff was called at home. He advised to do a 'reset' on cfe.7a-ps2 through 'fit' in order to reset the wfg for that FEC.

05:55- 10a-ps3 loss monitor permit was pulled and the RHIC store is dumped. y4-dh0 had a fault shortly before the permit was pulled.

06:42:33 comment by...N. Kling -- y4-dh0 had a range error at same time the loss monitor permit was pulled. The Gpm log of this ps is no longer being run and there is no PM data since there was no qli.

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Maintenance Day,

The following Quenches are from RHIC power supply personnel working on quench detection software and power supply hardware; they estimate completion around 2000.

08:08:48- Quench Link Interlock in Yellow ring, 10a-ps3.A dropped first
08:21:20- Quench Link Interlock in Blue ring, 4b-time.B dropped first
12:22:37- Quench Link Interlock in Blue ring, 11b-ps1 dropped first
13:40:08- Quench Link Interlock in Blue ring, 8b-ps1 dropped first
14:21:54- Quench Link Interlock in Yellow ring, 6b-ps1 dropped first (**Yellow Main Quad P.S. glitch**)
16:44:07- Quench Link Interlock in Blue ring, 9b-ps1 dropped first
17:02:27- Quench Link Interlock in Yellow ring, 4b-time.B dropped first
19:51:12- Quench Link Interlock in Yellow ring, 1b-ps1 dropped first (**Large Yellow Main Quad P.S glitch**)

Thursday: 11-08, Beam Abort, 2b-ps1; **QLI Blue ring, 2b-ps1** (Actual Time 21:20:44 +3656721)

QPA Faults none, blue off

QD Alarms none listed, running

DX Heaters all FIRED at 2b.

QdRealQuench none listed

Postmortems show N/A

Qdplots N/A

Quench Status not real

Reason: Blue Quench Link interlock caused by an intentional reset of the 2B power supply PLC. The hope was to clear several incorrect power supply state alarms.

Yellow Ring injection was halted temporarily due to a WFG problem in 3c-ps2.

A room high temperature alarm was received for 1010a, which was traced to the instrumentation room. CAS opened the exterior door to alleviate the problem.

Thursday: 11-08, Beam Abort, 4b-time.A; **QLI Blue ring, 4b-time.A** (Actual Time 21:32:52 +391650)

QPA Faults none, blue off

QD Alarms none listed, running

DX Heaters did not fire

QdRealQuench none listed

Postmortems show currents near zero, difficult to determine

Qdplots N/A

Quench Status not real

Reason: The quench link immediately dropped again after recovery was done. Wing Louie got Blue back up and checked out b2-dh0, which the recovery script had stopped on. Things look ok since.

06:30 - Machine Setup. After contacting C. Montag and A. Marusic, and rebooting cfe-3c-ps2, Yellow Ring Injection is back. **yi3-qgt and yi3-tv2** were affected by the WFG problem.

07:07:03 comment by...Jim -- We called Christoph and Al when yi3-qgt got stuck at the flattop value (and later found another corrector). In the end, the only fix was to reboot cfe-3c-ps2.

16:01:01 comment by...leif -- and from yesterday log: 2:31:49, Jim J: **y09-dh0 range error** alarms!! We should have this program as a tool. (Later found that by playing with the 3U chassis connections and the Housekeeping Supply connections, fixed the problem - must have been a loose or dirty connection)

00:07:56- RHIC acceleration ramp started, ramp id ramp21_1005368346 [Sequencer](#)

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Saturday: 11-10, Beam Abort 3b-ps1; QLI in **Blue ring, 3b-ps1** (Actual Time 00:10:44 +3053328)

QPA Faults b4-dhx-qp CROW

QD Alarms (3b-qd1) B2DSA5_A4VT Tq –12 (and many others)

DX Heaters all in 2b, 4b and 8b

QdRealQuench Multiple shown

Postmortems show blue dipole main p.s. ramp current and voltage rise approx –0.020sec before T=0

Qdplots Multiple taps drop –0.017 before T=0

Quench Status: **REAL QUENCH**

Reason: RF feedback beam control (see MCR comments below), and or caused by Main Power Supply Dipole glitch.

Blue QLI on the up ramp. 3b-ps1 pulled the permit. CCR notes that the DX's in all the sectors recorded high temperatures, and estimates about 1hr for recovery. L. Ahrens is looking at the logged loss monitor data, but he does not find anything unusual. 01:08:42 comment by...leif -- why did the permit go down? There is no loss prior to the abort. The loss monitors showed clean dumps in both blue and yellow - losses just at the absorber and a little beyond. Curiously the BLAM did not give credit in blue, though the report was clean. 02:30 The Yellow beam was lost at the very beginning of the ramp. 03:30 We could not find any unusual behavior in the RHIC power supplies. Also, all the optics parameters seem normal. So we will attempt another ramp. 04:00 The latest ramp looks similar. The Yellow beam dies instantly after the ramp is started. M. Bai is called at home for advice. MCR and M. Bai looked through all the logged data once more and could not find anything wrong. M.Bai suggest another ramp with 6 bunches. 05:15 MCR discovered that the Yellow RF radial loops do not close during prep. The normal procedure to turn on RF feedback beam control did not work. T. Hayes is called at home for help. 06:15 RF problem is solved. Filling up RHIC.

05:14:00- pscompare shows no current in **yo9-tv3**.

14:42:06- We just had a power dip. The LIPA people said that a 69 kV line tripped. [jak](#)

Many systems were affected by the power dip, including Tandem, Linac, BMMPS, Booster RF, BTA supplies, Booster and AGS correctors, the AGS L10 RF station, ATR supplies, the RHIC injection and abort kickers, the RHIC quench links, RHIC RF, three RHIC sextupole supplies, many RHIC corrector supplies, and several FECs. An attempt for a RHIC ramp was made at 1820, but the RHIC RF feedback was not in beam control. RF personnel were contacted and are coming in.

1448 -- cfe-5e-ps1 was rebooted due to a ping failure.

1449 -- cfe-929-rf was rebooted.

1505 -- cfe-5b-ps2 was rebooted due to a ping failure.

Saturday: 11-10, Beam Abort; **QLI Yellow 4b-time.B** (Actual Time 14:34:16 +411875)

QPA Faults b4-dhx-qp CROW, blue and yellow off

QD Alarms no negative Tq's, (3b-qd1) aux yellow quench YI3-SXD-VT

DX Heaters did not fire

QdRealQuench none listed

Postmortems show voltage on the main quad and dipole power supply suddenly drop.

Qdplots N/A

Quench Status: not real

Reason: **POWER DIP** (see description 14:42:06 above)

Saturday: 11-10, Beam Abort; **QLI Blue 4b-time.B** (Actual Time 14:34:16 +414497)

QPA Faults b4-dhx-qp CROW, blue and yellow off

QD Alarms no negative Tq's, (5b-qd1) aux blue quench BI5-SXD-VT

DX Heaters did not fire

QdRealQuench none listed

Postmortems show voltage on the main quad and dipole power supply suddenly drop.

Qdplots N/A

Quench Status: not real

Reason: **POWER DIP** (see description 14:42:06 above)

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Saturday: 11-10, Beam Abort; **QLI Blue 8b-ps1** (Actual Time 15:52:48 +3939802)

QPA Faults none, blue off

QD Alarms none listed (RUNNING)

DX Heaters did not fire

QdRealQuench none listed (RUNNING)

Postmortems power supplies at zero currents, unable to determined

Qdplots N/A

Quench Status: not real

Reason: at 15:36:37, main p.s. did not come on when blue was trying to come up.

Saturday: 11-10, Beam Abort 12a-ps1.A; **QLI in Blue ring, 11b-ps1** (Actual Time 22:16:36 +3706582)

QPA Faults b12-dhx-qp CROW

QD Alarms (11b-qd1) B10DSA5_A4VT Tq -24

DX Heaters did not fire

QdRealQuench (11b-qd1) B10DSA5_A4VT

Postmortems show nothing unusual

Qdplots N/A

Quench Status: **REAL QUENCH**

Reason: permit went before QLI by 80msec. Sitting at top energy, high beam loss g10-1m12

MCR COMMENTS

22:00 RHIC beam was ramped to top energy. The blue beam was debunched during cogging. M. Brennan and T. Hayes are investigating. Blue QLI during the down ramp.

22:21:07 comment by...leif -- so we are clearly proud of this one - three copies. Beam in blue debunched when we arrived at the store. Mike is looking at logs. We dump this after Angelika informs all the experiments and indeed quench in Blue.

22:26:39-The filling for this attempt was done one bunch at a time in blue, normal in yellow, because the amount of debunching judging by the wall monitor vs the DCCT in Blue was significantly worse if all four AGS bunches are taken at once. In yellow the effect appeared to be significantly less - really just what Jennifer had concluded. After the fill we found one quad in the x arc was in standby despite an on command. No error message visible to me. This explains the lower intensity in Blue, but presumably is orthogonal to the bunching problem...[leif](#)

Sunday: 11-11, **QLI in Yellow ring, 5b-ps1** dropped first (Actual Time 08:20:04 +3646489)

QPA Faults none, yellow off

QD Alarms (5b-qd1) Y5QDA4_A5VT Tq -23, Y6QDA3_A2VT Tq -23 & Y10QDA3_A2VT Tq -23

DX Heaters did not fire

QdRealQuench none listed

Postmortems show nothing unusual

Qdplots N/A

Quench Status: not real

Reason: Yellow Quad Main P.S. glitch. Ramping down from top energy, YQMC=3455 (Permit link went down before the QLI by 10 minutes)

MCR COMMENTS:

0810 -- During a ramp to gamma=107.4, NM264 closed the RHIC beam shutters and aborted the beam. ChipmunkViewer did not show any raised levels. The data from the ramp was analyzed, and adjustments were made to the yellow chromaticity.

10:56:21 comment by...jak -- The quench detectors in the arc regions had tripped before the quench link was pulled. This QLI was not related to the beam abort. It occurred between top energy and injection, during the down ramp.

14:43:48-Tried a new setting for the octupoles: IR octupoles at 6 and 8 o'clock turned off. Instead, we set all the other octupoles to -3.0 at g24 stone, linearly ramped up from zero at beta6 and down to zero at g50. The problem was that some octupoles were set in some other stones, so they didn't interpolate. Therefore, we had to set them there, too, because we couldn't figure out how to remove the set values and force the ramp editor to interpolate.[CM, Dejan, Frank Schmidt](#)

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Sunday: 11-11, QLI Blue 2b-ps1 (Actual Time 15:20:24 +130175)

QPA Faults b2-dhx-qp CROW
QD Alarms (2b-qd1) B2/1DX_DX Tq -20
DX Heaters 2b-ps2.A1 and 2b-ps2.B1 FIRED
QdRealQuench (2b-qd1) B2DRDX_VT
Postmortems N/A
Qdplots N/A

Quench Status: **REAL QUENCH Buss Quench, not Magnet.**

Reason: The b2-dhx had quenched. Support had been turning on the BRAHMS magnet around the same time. G. Ganetis was consulted. **15:53:32 comment by...jak** -- A quench of the b2-dhx was the cause of the QLI. The voltage had raised slightly before the quench link was pulled (which is a response of the supply to such a situation.) Support was turning on the BRAHMS supply, which had tripped, when this quench occurred (coincidence???) George said it was a very slow developing Buss Quench and not a magnet quench.

Sunday: 11-11, Beam Abort 10a-ps3.A; QLI in Yellow ring, 10a-ps3.A (Actual Time 16:15:12 +1507894)

QPA Faults none, blue and yellow off
QD Alarms no alarms listed, half show DUMPING DATA others still RUNNING
DX Heaters did not fire
QdRealQuench none listed
Postmortems N/A
Qdplots N/A

Quench Status: not real

Reason: Wrong ramp rate, see next quench (see 4b-time.A at 16:15:20 next entry for details).

Sunday: 11-11, Beam Abort 10a-ps3.A; QLI in Blue ring, 4b-time.A (Actual Time 16:15:20 +2095794)

QPA Faults blue and yellow off including bi4-tq5-qp
QD Alarms (4b-qd1) B4QFQ1_VT Tq -24
DX Heaters did not fire
QdRealQuench none listed
Postmortems N/A
Qdplots N/A

Quench Status: not real

Reason: Ramp up to Injection from zero at SF3, wrong ramp rate starting at zero current before going to park. 16:26:40 comment by...jak -- A change had been made to the ramp editor and an activate was sent, which ramps to injection (at the wrong ramp rate... this was accidental.) This attempted to ramp the supplies to injection at the wrong ramp rate and pulled both quench links.

Sunday: 11-11, Beam Abort 12a-ps1.A; QLI in Yellow ring, 5b-ps1 (Actual Time 23:40:40 +806874)

QPA Faults none, yellow off
QD Alarms (5b-qd1) Y4QFA3_A2VT Tq -24 (8 others also indicate negative Tq's)
DX Heaters did not fire
QdRealQuench none listed
Postmortems indicate large voltage drop at top, yellow main quad p.s.
Qdplots

Quench Status: not real

Reason: Yellow Main Quad Power Supply caused quench, ramping down from top energy YQMC= 3342