




“LHC Operation: MP3 List of Issues”


Status at 22 March 2010

MP3 - Team



Circuit	Problem	ACTION?	Remarks
RQTE.A81B1 (18/3 PM)	Noisy QPS card	Yes	Card was changed
RQTE.A23B2 (19/3/ AM)	Beam Feedback request too high (see also below)	Under way	OP beam feedback software to be upgraded
RQT12.L5B1 (19/3 PM)	Trip during precycle	No (but planned)	Do not precycle until the QPS intervention (22/3)
RQT11.L5B1/B2 (19/3 PM)	Trip during precycle	No (but planned)	Do not precycle until the QPS intervention (22/3)
RSD2.A78B1 (19/3/ PM)	PC trip (earth fault)	Yes	PC piquet intervention
RCBYHS4.R2B2 (20/3 AM)	Faulty PC card	Yes	PC piquet intervention
RCO.A56B2 (20/3 AM)	Trip. Origin not clear. U_RES to saturation within 5 ms, so not a natural quench.	No	
RQTD/RQTF on all Sectors (20/3/ AM)	General "trip problem" due to Beam Feedback software	Under way	OP beam feedback software to be upgraded
RQX.L5 (21/3 AM)	Trip due to cryo problem (TT)	No (but planned)	CRYO intervention planned for 22/3

Last night



Circuit	Problem	ACTION?	Remarks
RCBXH1.L1 (21/3 AM)	Trip at -133 A. probably related to PC.	no	
Sector 12 (22/3 AM)	Trip at injection current. nQPS on RQD/F???	QPS picket called who closed switches	To be analysed
Sector 56 (22/3 AM)	Temperature excursion on current lead RSS.A56B2		To be analysed



Ex. (on the LEFT) of a noisy QPS board (that end frequently with a trip of the circuit).

On the RIGHT a good signal for a similar circuit in another Sector. (NOTE: the noisy board was then changed)

created by lhcop on cwo-c

LHC MPP LOCATION > Sector 7-8

Michele still there.

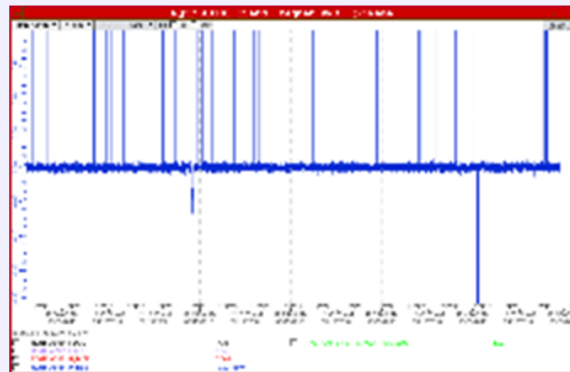
00:11

Since Gert (QPS Piquet) has problem to connect from home, I reset the QPS of the RQTF.A under instruction of Reiner.

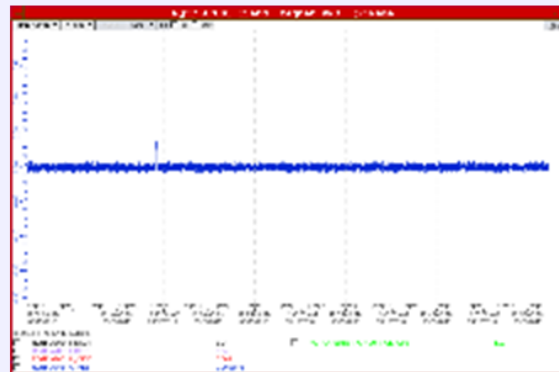
created by lhcop on cwo-c

Monitoring via LHC Circuit Supervision the U_res of RQTF.A81B1; signal shows a lot of spikes. By comparison I plot it here below with the RQTF.A78B1

00:51



20100319005425.png



20100319005713.png

created by lhcop on cwo-c

Problem of missing communication with controller of: RQTL11.L5B1&B2 and RQT12.L5B1&B2 (snapshot taken at 3.5 TeV)

The screenshot displays the LHC Circuit Supervision v4.3 interface. The main window shows a grid of 160 circuits in the powering subsector A45, with status indicators (green for OK, red for error). A detailed view of circuit RQTL11.L5B1 is overlaid, showing a 'DQAMGA Status' error. The error message reads: '1 - RQTL11.L5B1 DQAMG type A for circuit RQTL11.L5B1' and 'CFC_SE5_DT5FA_IP5_DT5F: FIP Lost with RQTL11.L5B1'. The interface also shows various status parameters for the circuit, including 'DLFLBS', 'DQQDC', and 'DQQDG'.

COMMENT : 20100321223910.png

LHCCircuitHMI_1: LHCCircuitHMI

S: vision/CIRCUITS/LHC_CIRCUITS_VIEW.plt

System Status monitor 10:39:09 PM 03/21/2010

LHC CIRCUIT SUPERVISION v4.3

160 circuits 03/21/2010 10:39:09 PM CIRCUITS IN THE POWERING SUBSECTOR A45

RB A45 RQD A45 RQF A45 RQ10 L5 RQ10 R4 RQ7 L5 RQ7 R4 RQ8 L5 RQ8 R4 RQ9 L5 RQ9 R4 RCD A45B1 RCD A45B2 RCS A45B1 RCS A45B2 ROD A45B1 ROD A45B2 ROF A45B1 ROF A45B2 ROS A45B1 RQTD A45B1 RQTD A45B2 RQTF A45B1 RQTF A45B2 RSD1 A45B1 RSD1 A45B2 RSD2 A45B1 RSD2 A45B2 RSF1 A45B1 RSF1 A45B2 RSF2 A45B1 RSF2 A45B2 RSS A45B1 RSS A45B2 RCO A45B1 RCO A45B2 RQS L5B1 RQS R4B2 RQT12 L5B1 RQT12 L5B2 RQT12 R4B1 RQT12 R4B2 RQT13 L5B1 RQT13 L5B2 RQT13 R4B1 RQT13 R4B2 RQTL11 L5B1 RQTL11 L5B2 RQTL11 R4B1 RQTL11 R4B2 RCBCH10 L5B1 RCBCH10 R4B1 RCBCH7 L5B2 RCBCH7 R4B2 RCBCH8 L5B1 RCBCH8 R4B1 RCBCH9 L5B2 RCBCH9 R4B2 RCBV10 L5B2 RCBV10 R4B2 RCBCH12 R4B1 RCBH17 R4B2 RCBH22 R4B1 RCBH27 R4B2 RCBH32 R4B1 RCBV14 L5B2 RCBV19 L5B1 RCBV24 L5B2 RCBV29 L5B1 RCBV34 L5B2 RCBV7 L5B1 RCBV7 R4B1 RCBH13 L5B2 RCBH13 R4B2 RCBH18 L5B1 RCBH18 R4B1 RCBH23 L5B2 RCBH23 R4B2 RCBH28 L5B1 RCBH28 R4B1 RCBH33 L5B2 RCBH33 R4B2 RCBV14 R4B2 RCBV15 L5B1 RCBV19 R4B1 RCBV20 L5B2 RCBV24 R4B2 RCBV25 L5B1 RCBV29 R4B1 RCBV30 L5B2

1 - RQTL11.L5B1 DQAMG type A for circuit RQTL11.L5B1

Status Trend RQTL11.L5B1

CFC_SE5_DT5FA_IP5_DT5F: FIP Lost with RQTL11.L5B1

DQAMGA Status

DLFLBS

LD1.ST_LEAD_OK

LD1.ST_PWR_PERM

LD1.U_RES

LD1.U_HTS

LD2.ST_LEAD_OK

LD2.ST_PWR_PERM

LD2.U_RES

LD2.U_HTS

DQQDC

LD1.ST_COHER

LD1.ST_PWR_PERM

LD1.ST_HTS_RESOL

LD2.ST_COHER

LD2.ST_PWR_PERM

LD2.ST_HTS_RESOL

DQQDG

ST_COHER

ST_PWR_PERM

ST_PWR

DQAMG A Command

QPS

CV891

CRYO_MAINTAIN

CRYO_START

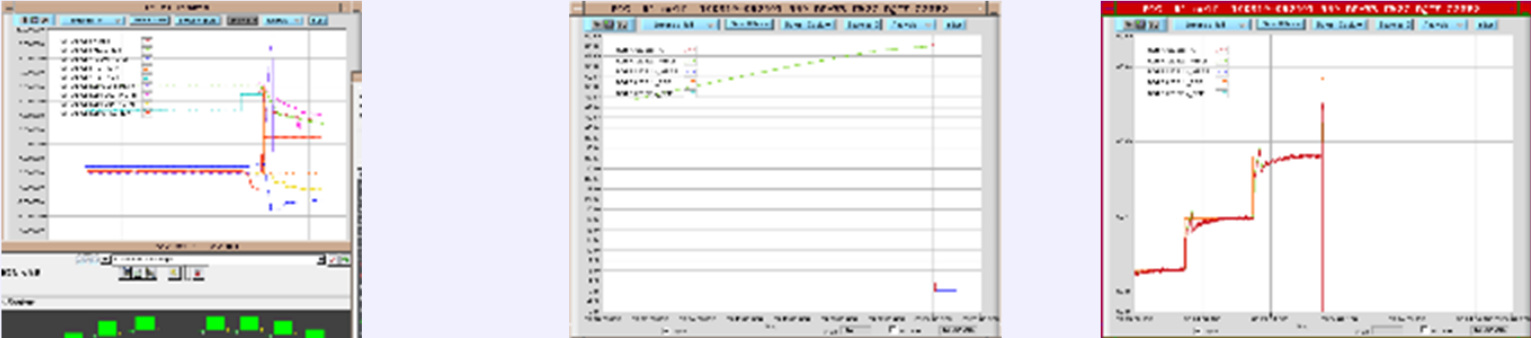
Ex. Of Beam Feedback correction "too hard to be digested" by PC and QPS.

(Note Feedback was disactivated in yesterday runs at 3.5 TeV in order to avoid eventual trips during beam measurements)

06:39 Andrea in shift created by andrea.musso@cern.ch on 172.18.200.167

LHC MPP LOCATION > Sector 2-3
CIRCUIT : RQTF.A23B2
COMMENT : During plateau at 3.5TeV B2 was dumped. RQTF.A23B2 was the first trigger (seen on PIC), the trigger was given by QPS.
It seems evident that the U_RES increased while trimming of the beam. Increase of the requested rate gave U_RES signal over threshold for three points.
Increasing of U_RES can be observed also during previous trimming, approaching the threshold as well but not reaching it.
Beam 1 was dumped some 11 sec. after.

07:51



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FGC 51_self 100319-052401.940_RPMBB-UA27.RQTF.A23B2

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