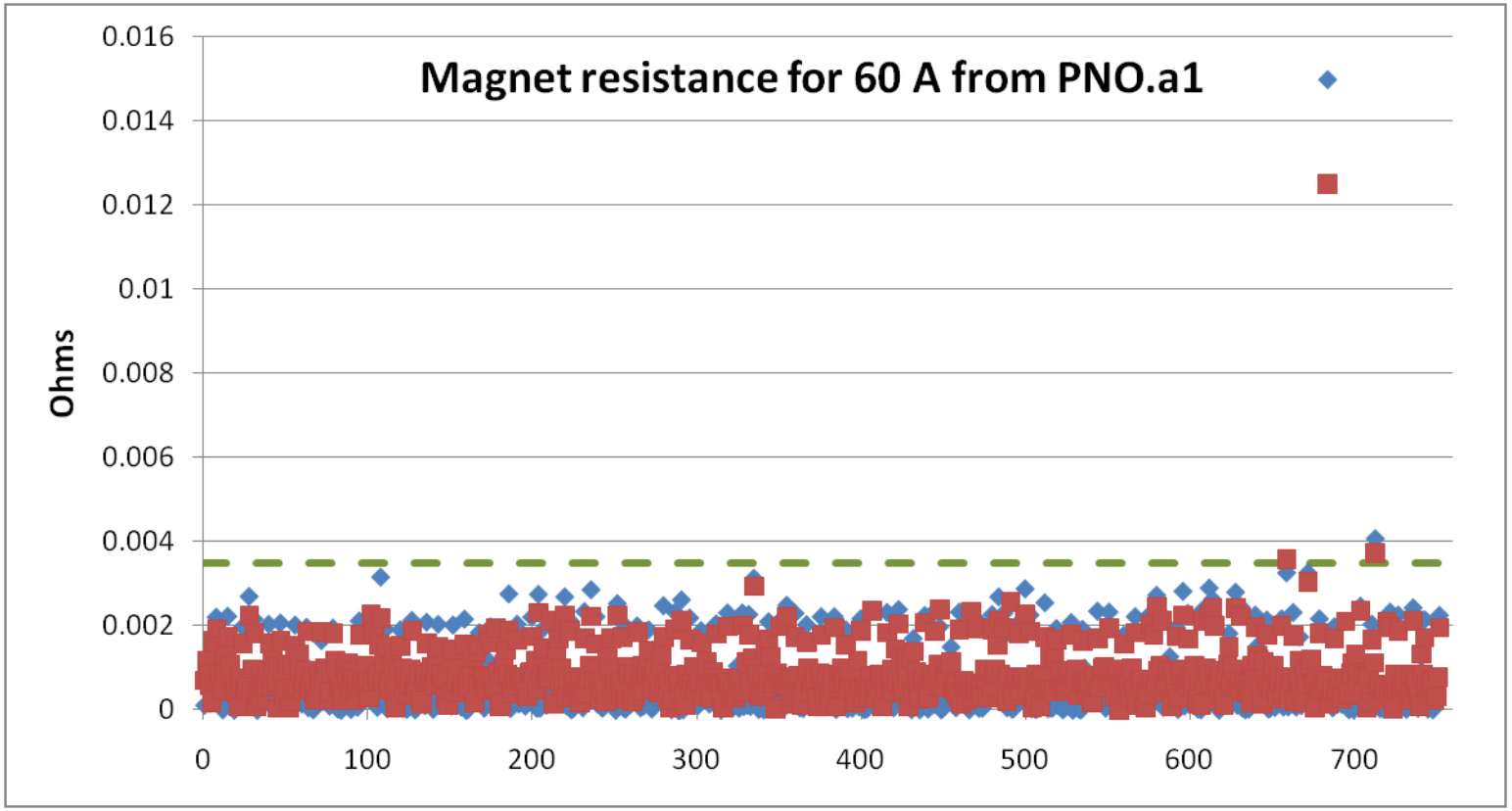
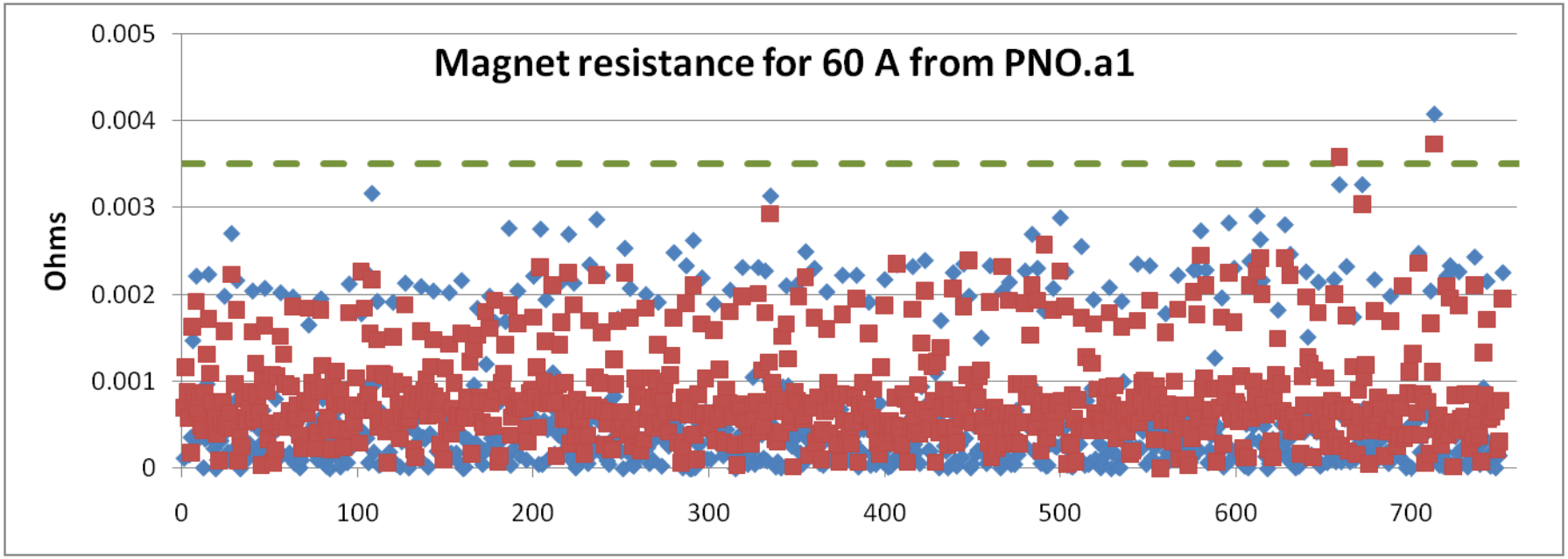
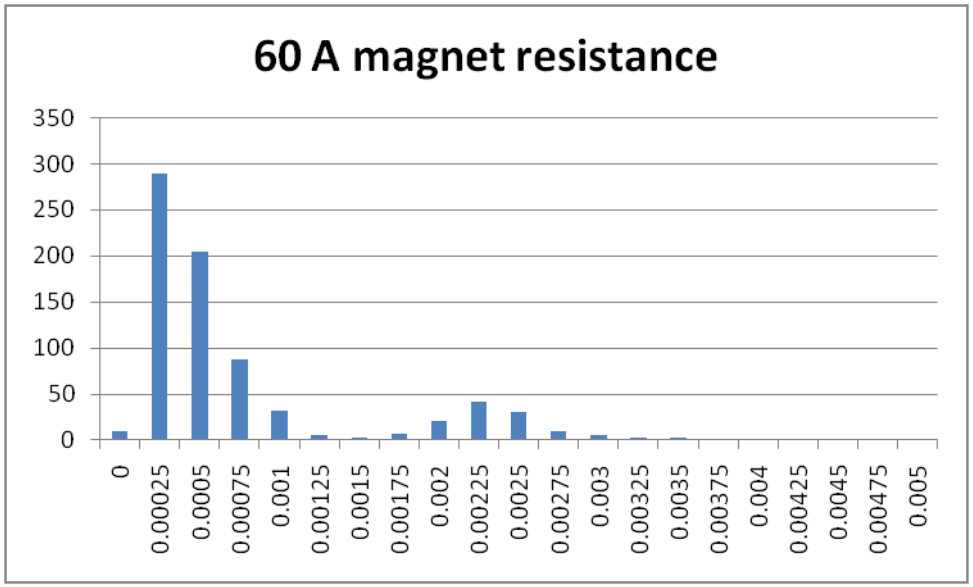
“Orbit correctors problems/trips during individual tests and PGC”

Michele and Nuria

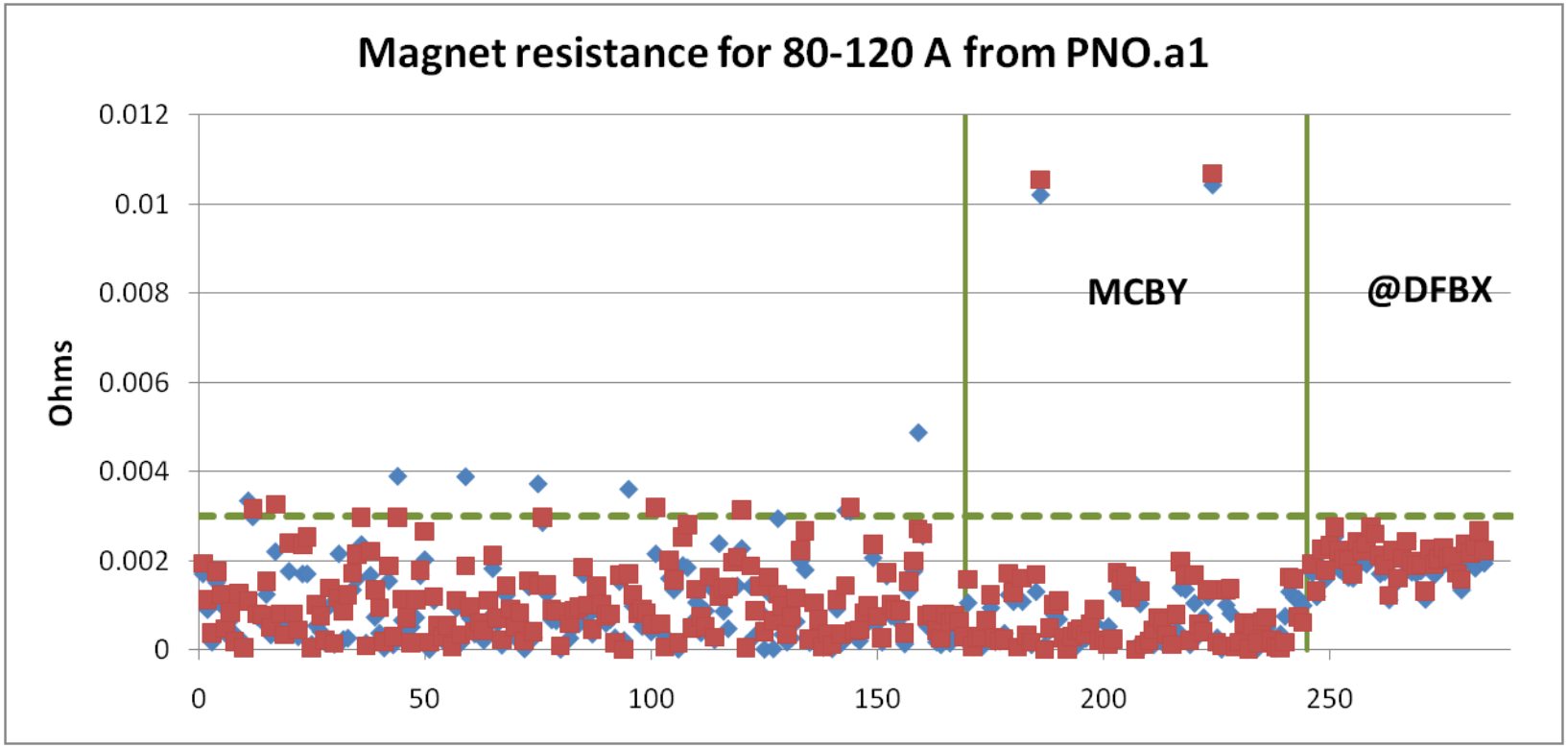

Magnet resistance for 60 A from PNO.a1
Ohms
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
100
200
300
400
500
600
700

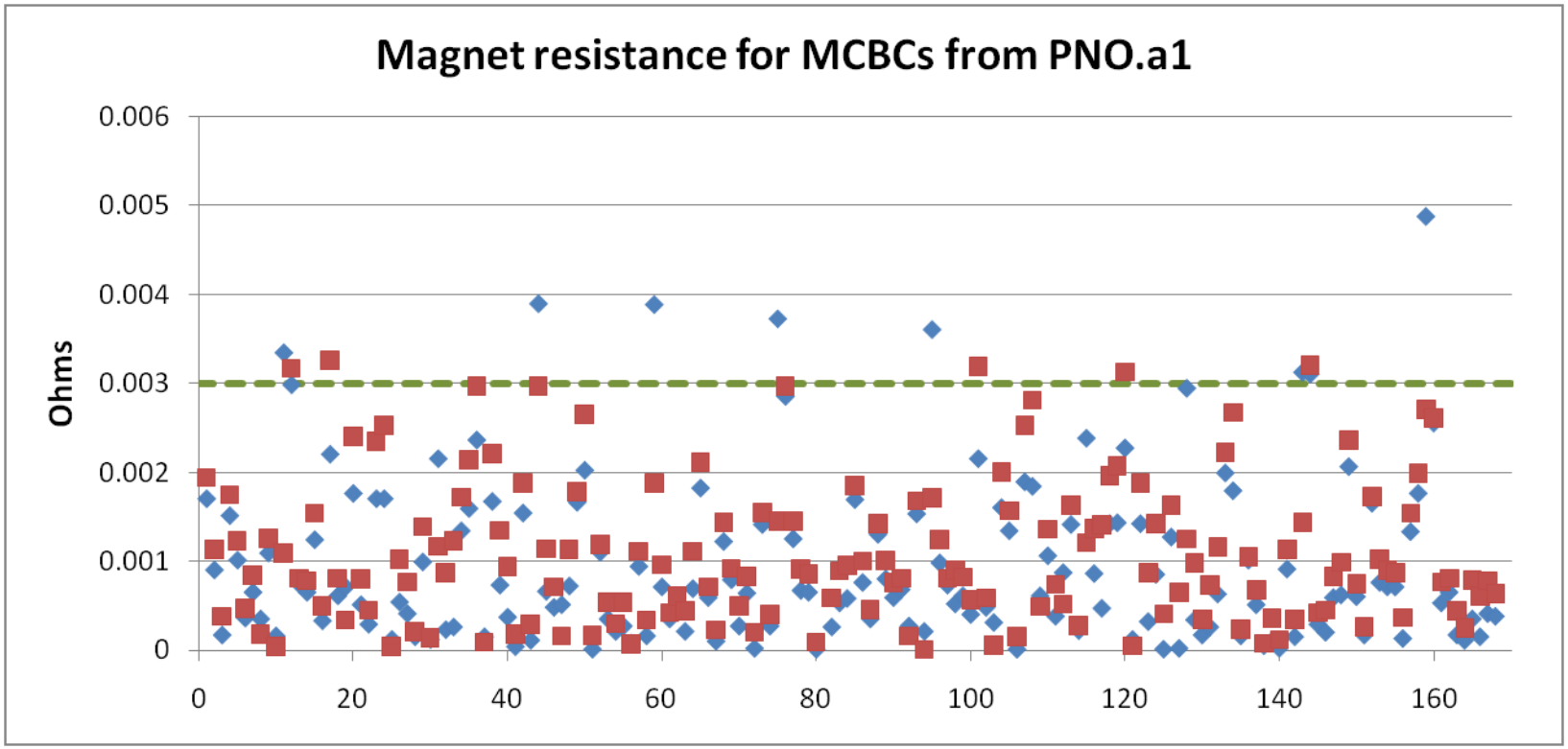




- RCBH17.R4B2
- RCBH31.R7B1
- RCBV28.R3B1
- RCBV29.L8B2
- RCBV30.L4B1

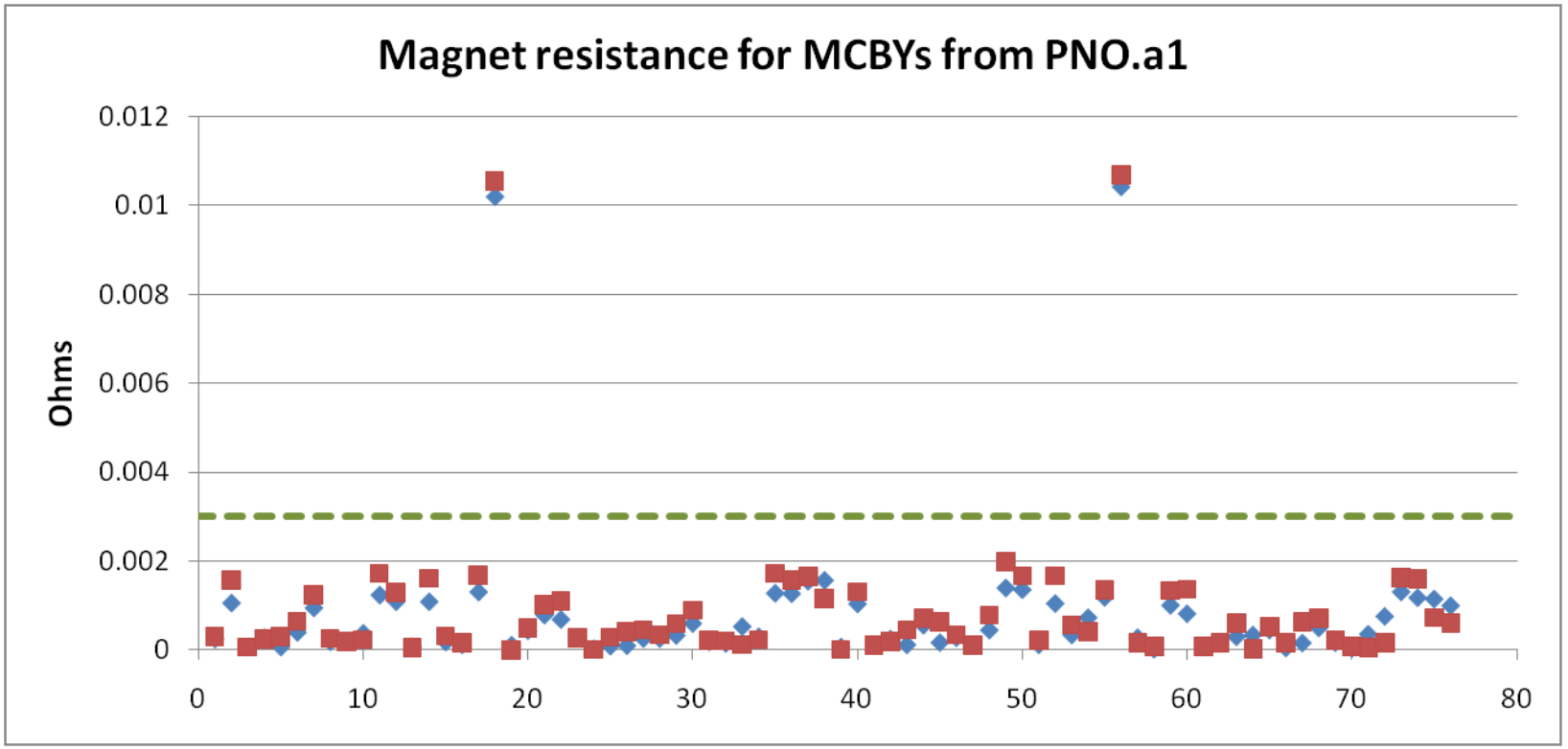
60 A CIRCUITS	COMMENT
RCBH31.R7B1	Circuit **LOCKED** since 2009 HWC at ELQA test level for high resistance on a lead (NC EDMS 1017094)
RCBV30.L4B1 ***(see Giorgio slides)***	Magnet resistance NOT OK on Pno.a1 on 9 Feb (~15 mOhm)- Resistance OK on Pno.a1 on 15 Feb (2.3 mOhm) after a replacement of the PC - Resistance NOT OK (~13 mOhm) on Pno.a1 on 23 Feb - No other actions seem taken. Powering test campaigns 2008 and 2009 are OK (~0.3 mOhm)
RCBV32.L1B2	Magnet resistance NOT OK on Pno.a1 on 3/4 Feb (~4 mOhm) but coeherent with powering test campaigns 2008 and 2009 are OK (~3.7 mOhm)
RCBV28.R3B1	Magnet resistance NOT OK on Pno.a1 on 9/12 Feb (3.54 mOhm) but coeherent with powering test campaigns 2008 (3.68 mOhm) and 2009 (3.4 mOhm).
RCBV29.L8B2	Magnet resistance OK on Pno.a1 on 31 Jan (3.15 mOhm). It is slightly an outstanding resistance value respect to the rest of population but coeherent with powering test campaigns 2008 and 2009 (3 mOhm)


Magnet resistance for 80-120 A from PNO.a1
Ohms
0.012
0.01
0.008
0.006
0.004
0.002
0
0
50
100
150
200
250
MCBY
@DFBX



- RCBCH10.R4B1
- RCBCH5.L1B2
- RCBCH7.R3B1
- RCBCH8.R3B2
- RCBCH9.R3B1
- RCBCV10.R3B1
- RCBCV7.L2B2
- RCBCV8.R3B1
- RCBCV8.R4B2
- RCBCV9.R3B2

80-120 A	COMMENT	
RCBCH10.R4B1	5 Pno.a1 executed along the 3 HWC campaigns: all the test show a stable resistance slightly out of toll (~ 3.15 mOhm versus limit of 3 mOhm).	
RCBCH5.L1B2	Magnet resistance Not OK (~ 3.3. mOhm on 1 cycle ONLY) at pno.a1 tests on 5 Feb (twice). Was OK (but SAME TREND) in 2009 where also warm cables needed to be remesured for DB correction	
RCBCH7.R3B1	Magnet resistance at Pno.a1 on 9 Feb was 3.9 but for this circuit limit is 5 mOhm (correct??). In 2009 PNp was reduced from 100 to 80 A due to some weakness (quenches at ~ 98 A). Magn. resistance quite different among 2 cycles.	S3-4 (R3) specificity: PC type RPMC in place
RCBCH8.R3B2	Magnet resistance at Pno.a1 on 9 Feb was 3.9 but for this circuit limit is 5 mOhm (correct??). In 2009 found some weakness (quenches at ~ 91-93 A). Magnet resistance quite different among 2 cycles.	S3-4 (R3) specificity: PC type RPMC in place
RCBCH9.R3B1	Magnet resistance at Pno.a1 on 9 Feb was 3.9 but for this circuit limit is 5 mOhm (correct??). In 2009 PNp was reduced from 100 to 80 A due to some weakness (quenches at ~ 91 A). Magnet resistance quite different among 2 cycles.	S3-4 (R3) specificity: PC type RPMC in place
RCBCV10.R3B1	Magnet resistance at Pno.a1 on 9 Feb was 3.6 mOhm but for this circuit limit is 5 mOhm (correct??).	S3-4 (R3) specificity: PC type RPMC in place
RCBCV7.L2B2	Magnet resistance NOT OK on Pno.a1 on 8 Feb (3.13 mOhm) but coeherent with powering test campaigns 2008 and 2009. (Open a NC for circuit tracking).	
RCBCV8.R3B1	Magnet resistance at Pno.a1 on 9 Feb was 3.12 mOhm but for this circuit limit is 5 mOhm (correct??).	S3-4 (R3) specificity: PC type RPMC in place
RCBCV8.R4B2	Magnet resistance NOT OK on Pno.a1 on 8 Feb (3.2 mOhm) but coeherent with powering test campaigns 2008 and 2009. (NC open for circuit tracking).	
RCBCV9.R3B2	Magnet resistance at Pno.a1 on 9 Feb was 4.87 mOhm but for this circuit limit is 5 mOhm (correct??).	S3-4 (R3) specificity: PC type RPMC in place



RCBYH6.R4B1	Magnet resistance NOT OK on Pno.a1 on 11 Feb (~10.5 mOhm) but coeherent with powering test campaigns 2008 and 2009 (Open a NC for circuit tracking).
RCBYV6.R4B2	Magnet resistance NOT OK on Pno.a1 on 11 Feb (~10.7 mOhm) but coeherent with powering test campaigns 2008 and 2009 (in total on 10 Pno.a1!) (Open a NC for circuit tracking).

Circuits tripping during FGC

S78 PGC (15th Feb):	
RCBCV5.L8B2	***From history:*** one quench at 71.5 A in 2009, otherwise very low magnet resistance; FGC problem show a PC overvoltage trip (due to a quench?)
RCBH24.L8B2	***From history:*** R.A.S. ; FGC problem seems a PC trip
RCBH29.L8B1	***From history:*** R.A.S. ; FGC problem seems a PC trip
RCBV24.L8B1	***From history:*** R.A.S. ; FGC problem seems a PC trip
Heat run 17th Feb:	
RCBV24.L8B1	***From history:*** R.A.S. ; FGC problem seems a PC trip
RCBCV8.R4B2	***From history:*** in the previous least for slightly higher but stable resistance; FGC problem show a PC overvoltage trip (due to a quench?)