**Date of modification July 4, 2008**

Changes needed? ask Jens Blisplinghoff.

# COMPASS Checklist 2008

Date: _____ 2008    Night ____  Day ____  Evening ____

Shiftleader: _____

to be performed twice per shift

| General Checks | Time |
|---|---|
| First run number after checklist done: | |
| **Print** and check Beam Line Magnet Status and Spill<br>**Print** and check STATUS GENERAL<br>**Calculate** and apply new pressures for CEDARs<br>*(only evening shift)* | (instructions at Beamline PC) |
| Check MurphyTV for every run | |
| **Print** booky once, store bookies (ps files) twice per shift in shift_manager, **check** for every run, **write** a comment on the logbook, describing if and what problems were found | $\approx$ 2 and 6 hrs after shift start |
| **Check** Scaler display, especially **calo** and **veto** rates<br><small>(on the lower half of the browser window)</small><br><small>(cd $HOME *then* ./guitest *then click* Make Booky *then print* tmplast.ps)</small> | **not required** |
| **Check** triggers in TCS status window regularly and **put screenshots** to the logbook | |
| **Print** and check masked alarms in slow control<br>**Print** and check channels OFF and channel settings lists<br>Periodically **check** all MMs/DCs are **ON** (rightmost screen) __ | how many channels off?__ |
| run check_daq: look for red lines; if yes, write a comment | |
| check EVB disk usage, if any in red state call DAQ expert | **not required** |
| **SM2-NMR** reading: scope / history in DCS ($1.92642 \pm 0.0005$) | __ / __ |

| SM1-Hall (DVM) | | |
|---|---|---|
| **SM1-Hall** (DVM) | for longitudinal target field 1T, "+"<br>for longitudinal target field 1T, "−"<br>for transverse target field | ($59.97 \pm 0.04$) __ **To be**<br>($59.72 \pm 0.04$) __ <br>($59.88 \pm 0.04$) __ **changed** |

| | |
|---|---|
| DAQ Barrack, check no audible alarm ____      T below $\simeq 30^o$c ____ | |

**RICH Gassystem**: PD0 – PD7 flow meters > 50 l/h(24.5.03): ____
If not ok: switch off PD HV and call expert
Check the blue compressor: it must be running (vibrations): ____
If not on: switch off PD HV and call expert

**MW2 Gassystem**
Check 6 input flow meters: 10-35 l/h    1 – 6: ____
Check 6 output bubblers: all bubbling?   1 – 6: ____
If some are not bubbling: call expert
safety bubbler should not bubble more than 0.1 - 1 hz ____

**MW1 and RICH Wall Gassystem**
Check 8 MW1 input flow meters $\simeq 10 – 20$ l/h    1 – 8 ____
Check 8 RW input flow meters: ch. 1-3,5-8 $\simeq 5 – 20$ l/h ____,    ch. 4 $\simeq 14 – 20$ l/h ____

| | |
|---|---|
| Check 6 MM output bubblers: all bubbling?   $1 - 6$ ___ | |
| Check 3 DC output bubblers: all bubbling?   $1 - 3$ ___ | |
| Check that security bubblers are NOT bubbling (lower row): ___ | |

**RICH** light gas pipe: He system
Check 2 flow meters: #8: Range $6 <$ flow $< 16$ l/s:   #10 Range $10 <$ flow $< 20$ l/s:
Note: #8 close to lower limit

**MW2 Gas Control Modules (green rack)**
**MW2:range** $45 < \mathbf{Ar} < 90$ ___    **range** $15 < \mathbf{CH_4} < 30$ ___  $\mathbf{Ar/CH_4 \approx 1/3}$
If flows deviate by more than 2 units: Press "RESET" button on control unit

**PLC3 (W45, MM, DC, RWall/MW1) (do not care about MW2 here)**
press "Logo" to get started (Note: press "Esc" to get back one menu)

Check that W45, MM, DC, RWall/MW1 Battery are ON ___
If something is not ON, call expert and switch off HV of chamber concerned

Press **"MM"**: Check "Flowmeters: ON"? ___    check Ne flow: $6 \pm 1$ l/h: ___
Press "Curves"(R8): Check "Actual Value" $C_2H_6$ is 10% ___
Press "Next"(R8): Check "Actual Value" $\mathbf{CF_4}$ **is 0%** ___

Press **"DC"**: Check "Flowmeters: ON"? ___    check Ar flow: $7 \pm 2$ l/h: ___
Press "Curves"(R8): Check "Actual Value" $C_2H_6$ is $45 \pm 1\%$ ___
Press "Next"(R8): Check "Actual Value" $CF_4$ is 10% ___

Press **"W45"**: Check "Flowmeters: ON"? ___    check Argon flow: $110 \pm 20$ l/h ___
Press "Curves"(R8): Check "Actual Value" $CF_4$ is 10% ___
Press "Next"(R8): Check "Actual Value" $CO_2$ is 5% ___

Press **"Rich Wall"**: Check "Flowmeters: ON"? ___
Press "Curves"(R8): Check "Actual Value" $CO_2$ is 30% ___

Press "Logo" to finish

**Flows Silicon**: 3 flow meters (between grey rack with bubblers and green rack)
Si01: $\approx 350$ l/h ___    Si02: $\approx 350$ l/h ___    Si03:$\approx 350$ l/h ___

**PLC2 (STRAW, MWPC, GEMs, CSI)**
press "Logo" to get started (Note: press "Esc" to get back one menu)

Check that Straw, MWPC, GEM, CSI Battery are ON ___
If something is not ON, call expert and switch off HV of chamber concerned

Press **"Straw setting"**: Check "Flowmeters: ON"? ___
Check Ar flow: $105 \pm 5$ l/h: ___    $CF_4$ flow: $13 \pm 1$ l/h: ___    $CO_2$ flow: $13 \pm 1$ l/h: ___
Press "$CF_4$ mixture curve"(R6): Check "Actual Value" $CF_4$ is 10% ___
Press "Esc", then "$CO_2$ mixture curve"(R8): Check "Actual Value" $CO_2$ is 10% ___

Press **"MWPC setting"**: Check "Flowmeters: ON"? ___
Press "$CO_2$ mixture curve"(R6): Check "Actual Value" $CO_2$ is 6% ___
Press "Esc", then "$CF_4$ mixture curve"(R8): Check "Actual Value" $CF_4$ is 20% ___

Press **"GEMs setting"**: Check "Flowmeters: ON"? ___
Check **Ar flow: 38 l/h:** ___    $\mathbf{CO_2}$ **flow: 16 l/h:** ___
Press "$CO_2$ mixture curve"(R6): Check "Actual Value" $CO_2$ is constant at 30% ___

Press "Logo" to finish

**GEMs**: **flow to GM01-11 and GP01-03:** $3 <$ **flow** $< 5$ **l/h** (upper edge of the ball) ___
Knock on the glass cover if the ball does not move. Careful when readjusting!

**MWPCs**
MWPCs input flow meters: between 5 and 17 units ___

**Straws**
Flow meters 1-3, 5-17 with 60 l/h ? ___
All flowmeter readings between red labels ? ___

**W45** Ch 1: $50 - 60$ l/h ___    Ch 2: $50 - 60$ l/h ___    Ch 3: $50 - 60$ l/h ___
Ch 4: $50 - 60$ l/h ___    Ch 5: $50 - 60$ l/h ___    Ch 6: $50 - 60$ l/h ___