Startup configuration

❑ Startup interlock configuration to be defined next Monday PM.

- ○ JW + BP in collaboration with BIS input 'owners'.
- ○ Monday PM the configuration will be send out by to MPP mailing lists + clients for info/comments.

❑ Interlock configuration will be applied by Bruno's team next Tuesday and Wednesday.

- ○ The configuration will be presented at the 17:00 machine checkout meeting (CCC glassbox) for information.
- ○ The configuration will be entered into an EDMS document and send for approval (for reference).

❑ The MPS tracking page will be used to document BIC inputs that are not activated + history of changes ('non-conformities').

Configuration changes

❑ Configuration changes must be approved by:

  o BIS input owner.

  o MPP representatives: J. Wenninger + 2-3 other MPP representatives (tbd).

  o B. Puccio and/or B. Todd.

❑ Changes will be documented by a simple EDMS document:

  o Input description.

  o Reason for change.

  o Approval process:

    o Traditional signature on paper copy of EDMS (unless long lead time).

    o Followed by approval via EDMS.

❑ Non-conformity list updated.

Initial configuration

❑ All but:

  o Redundant path for BPM interlock IR6 (not connected).

  o 1 our of 2 RF inputs (SR4, damper).

  o LHCf detector?

  o CMS magnet.

  o Totem? (possibly not ready).

  o Safe Machine Parameters (not ready for Dump request).

❑ PIC un-maskable connected, but fast interlock via CPLD not activated.

  o Non-maskable : RB, RQ, IPQ, IPD.

  o Possibility to reconfigure in case of cryo problems…

#	User Systems	L1	R1	L2	R2	U3	S3	L4	R4	L5	R5	L6	R6	U7	S7	L8	R8	CCR	Σ	b1	b2
1	Collimation (Env. Param.)		1 1	1 1	1 1	1 1				1 1	1 1	1		1 1		1 1	1 1		10 10	2	2
2	Collimation (Motor pos.)	1 1	1 1	1 1	1 1	1 1				1 1	1 1	1		1 1		1 1	1 1		11 11	2	2
3	Vacuum system ("sector v.")	1 1		1 1	1 1	1 1		1 1	1 1	1 1			1 1	1 1	1 1	1 1	1 1		12 12		
	Vacuum system ("X valves")		1		1	1					1					1	1		6	1	1
4	PIC for essential circuits	1	1	1	1	2		1		1	1	1	1	2		1	1		16		
	PIC for auxiliary circuits	1	1	1	1	2		1		1	1	1	1	2		1	1		16		
5	BLM at aperture limitations	1		1			1		1	1		1			1	1			8		
	BLM in the arcs	1		1				1	1	1		1			1	1			8		
6	FMCM	1			2	3					1		1 1		3				10	1	1
7	WIC	1		1		1			1	1		1		1		1			8		
8	Screens			1		1 1			1 1				1	1 1	1				4 5		
9	RF & Transverse Damper							1 1	1 1										2 2		
10	Beam excursion (BPM)												1 1		1 1				2 2		
11	LBDS										1	1							1 1	1	1
12	Beam Aperture Kicker							1 1											1 1		
13	Injection Kickers			1													1		1 1	1	1
14	TCDQ												1 1						1 1		
15	Access Safety System						1		1									1	3		
16	CCC Operator Buttons																	1	1	1	1
17	Programmed Beam Dump																	1	1		
18	Safe Machine Parameters																	1 1	1 1		
19	Fast Beam current Chang Mon.								1 1										1 1		
20	ATLAS (Detector part)		1																1	1	1
21	LHCF (Detector part)		1																1		
22	ALICE (Detector part)				1														1	1	1
23	CMS (Detector part)										2								2	1	1
24	TOTEM (Detector part)										1								1	1	1
25	LHCb (Detector part)																1		1	1	1
26	ATLAS (Magnets)		1																1		
27	ALICE (Magnets)				1														1		
28	CMS (Magnets)										1								1		
29	LHCb (Magnets)																1 1		1 1		
30	ATLAS (movable devices)		1 1																1 1		
31	TOTEM (movable devices)										1 1								1 1		
32	LHCb (movable devices)																1		1		
33	ALICE-ZDC																		0 0	1	
34	MSI Power Convertor																		0 0	1	1
	User Systems	L1	R1	L2	R2	U3	S3	L4	R4	L5	R5	L6	R6	U7	S7	L8	R8	CCR		b1	b2

Exp. Inputs final check-out

❑ Main aim are movable detector interlocks (VELO, TOTEM?):

  ○ Check logic with SAFE STABLE/UNSTABLE BEAM flags.

❑ Proposed date is next Monday (also hand-shake test).

❑ 'Real' Post-mortem event tests may not be possible.

STABLE BEAMS preparation with beam

- ❑ Aperture measurement/check in every IR using parallel bumps (similar to separation bumps) with **circulating beam**.

  - o BLM signal/sensitivity check.

  - o Estimation of BLM threshold in terms of lost p (at 450 GeV).

    - ›› similar to bump test performed in arcs during 2nd inj. test.

  - o BCM signals for (small) losses from triplet/TAS/aperture limit.

- ❑ Comments:

  - o Aperture measurement requires retracted TCTs.

  - o We may want to repeat with TCTs in protect position (losses from TCTs, beam moved toward TCT) or by closing the TCT on the beam.

- ❑ Careful scheduling required – procedure to be refined following first aperture measurements.