






Status of MPE-MI Systems


226th Machine Protection Panel Meeting

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on behalf of TE-MPE-MI


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Interlocks System Status - I


- **WIC** 
- **PIC** 
- **FMCM:** 
 - WIC triggers before the FMCM.
 - Tests to be carried out at injection energy at least for the most critical circuits: **RD1** and **RD34**.
 - Tests with pilot beam done yesterday for **RD1.LR1**.
 - To be repeated for RD1.LR5 and RD34 at injection energy.
 - Procedure to be reviewed/updated?






iP	MPP/FMCM - BC1 - Program a step (FMCM masked) and establish new reference for pilot at 450 GeV	MPP/FMCM - BC2 - Program a step (FMCM masked) and establish new reference for pilot at 7 TeV	MPP/FMCM - BC3 - Provoque triggering and check orbit for pilot at 450 GeV	MPP/FMCM - BC4 - Provoque triggering and check orbit for pilot at 7 TeV
RQ4.LR3				
RQ5.LR3				
RD34.LR3				
RQ4.LR7				
RQ5.LR7				
RD34.LR7				
RD1.LR1				
RD1.LR5				
RBXWTV.L2				
RBXWTV.R2				

Interlocks System Status - II

	Status
Collimation movement	Green
Collimation environment	Green
PIC	Green
Vacuum	Green
BLM	Green
FCCM	Green
WIC	Green
TCDQ & BETS-TCDD	Green
RF	Grey
ATLAS	Green
CMS & TOTEM	Green
ALICE	Green
LHCb	Green
BCCM	Grey
BPM	Grey
Access system	Green
Operator push-buttons	Green
Programmed dump	Green
CIBDS	Green
Crystal collimator	Green
Beam screens	Green
Kicker systems	Green
SMP	Green
MKI test mode key	Green
MKQA	Green

- **BIS:** 
 - **User link connections** to be validated:
 - **RF** (never in final commissioned state)
 - **BCCM** not operational yet
 - **BPM** (point 6) → next week
 - **LHCb VELO**: not yet ready

- **SMP:** 
 - **Beam tests** (Ramp Energy, SBF TRUE → FALSE)

	Status
MPP/SMP - SPS BC1 - Probe of less than 1E11 P+ 	Green
MPP/SMP - SPS BC2 - Set-up beam of 1E11 to 5E11 P+ 	Green
MPP/SMP - SPS BC3 - Set-up beam of 5E11 to 3.5E13 P+ 	Green
MPP/SMP - SPS BC4 - Beam above 3.5E13 P+ 	Yellow
MPP/SMP - LHC BC1 - Pilot of 1E10 P+ at 450 GeV	Green
MPP/SMP - LHC BC2 - Ramp set-up beam from 450 GeV Normal	Grey
MPP/SMP - LHC BC3 - Ramp set-up beam from 450 GeV Restricted	Grey
MPP/SMP - LHC BC4 - Ramp set-up beam from 450 GeV Beam Setup	Green
MPP/SMP - LHC BC5 - Ramp set-up beam from 450 GeV Ion	Grey
MPP/SMP - LHC BC6 - Threshold 5E11 P+ at 450 GeV Normal	Grey
MPP/SMP - LHC BC7 - Threshold 4E10 P+ at 450 GeV Restricted	Grey
MPP/SMP - LHC BC8 - Threshold 3E11 P+ at 450 GeV Beam Setup	Grey
MPP/SMP - LHC BC9 - Threshold 5E11 P+ at 450 GeV Ion	Grey