

SPS machine report week 37

19.09.2017

SPS overview week 37

- Beam availability for NA about 90%
 - SFTPRO intensity increased to 3.5×10^{13} p at flat top – transmission about 95%
 - Variety of beams delivered for LHC MD block #3
- Main contributions to downtime
 - Injector complex (PS)
 - “Operation: beam setup” (5.5h): the high intensity 8b4e beam (1.6×10^{11} p/b) requested for LHC MDs caused sparking in ZS → voltage had to be reduced and no beam for NA during beam preparation and beam delivery to LHC
 - Intervention on 800 MHz RF (1h)
 - EPC intervention on QD circuit (1h): significant ripple at 600 Hz was noticed (active filters not working). Fixed by intervention on the PLCs controlling the active filters → ripples at 600 Hz and at 70 Hz on the QD circuit are gone
- 8b4e BCMS beam prepared for potential use in LHC after TS
 - 1.3 μm at flat top with 1.2×10^{11} p/b (2x32 bunches)
- First studies with partially stripped Xe (39+)
 - Lifetime due to stripping at residual gas on the order of 1s

SPS fault overview

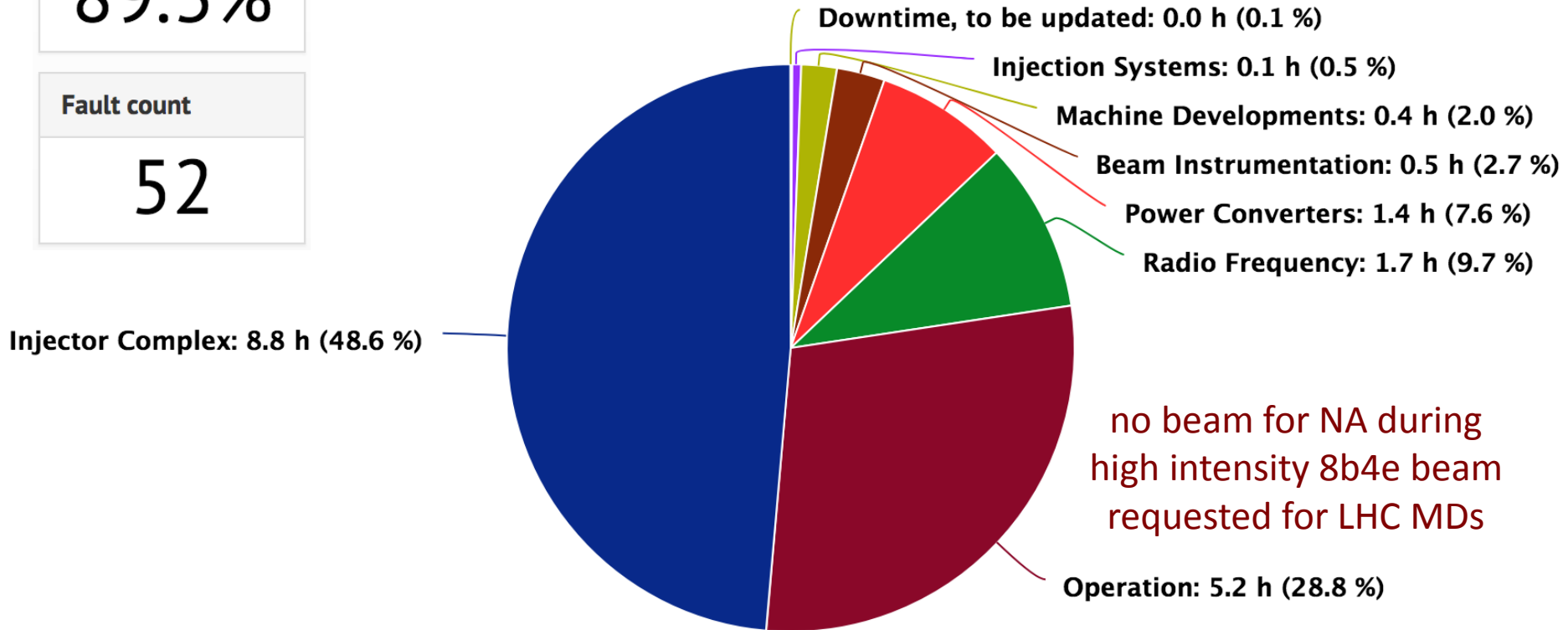
Root Cause Fault Time Distribution

Availability

89.3%

Fault count

52



● Downtime, to be updated ● Injection Systems ● Machine Developments ● Beam Instrumentation
● Power Converters ● Radio Frequency ● Operation ● Injector Complex

Fault breakdown

Root Cause Fault Times by System

