GE-1/1 Refurbishment June 2021

M. Bianco

GEM TC
Problematic SCs

SCs to be replaced:
Long: #20
Short: #31

5 GBT Communication Issues
(likely due to the VTRx)

0.043% of trigger lines not working properly
4 of 1728 VFATs with communication issues

To be replaced
Manpower, SCs Spare and Info for Plan

- Extraction/Substitution Team in P5 will be formed by S. Brachet, M. Abbas, P. Petiot, P. Bulteau M. Bianco

- 4 SCs spare still in preparation, 1 Long (with Radmon) + 1 Short

- Survey in 904 expected on Tuesday 29th Morning and transport to P5, with CERN car on Tuesday afternoon and Wednesday morning (one SC per time)

- Flying test in P5 required to the DAQ team asap, possibly Wednesday morning

- Available time (with crane): 3 Working days Monday/Tuesday/Wednesday 5th/6th/7th July

- Gas and Cooling and services disconnection have to take place Thursday 1st July afternoon and Friday 2nd Morning
Possibly DbD plan

5th July (Monday): Far side
- Morning: Extraction of SC 020 (Long)
- Afternoon: Insertion of spare SC in slot 20 and preparation for extraction SC 31 (clamp positioning / pallonier rotation)
- Gas & Cooling re-connection
- Cooling leak test (night)

6th July (Tuesday): Near side
- Morning: Extraction of SC 32 (Long)
- Afternoon: Extraction of SC 31 (Short); Possibly inserting SC 31 spare
- Re-cabling SC 20 (Far side)

7th July (Wednesday): Near side
- Morning: insertion of SC 31 spare
- Afternoon: Re-Insertion of SC 32 (Long)
- Gas & Cooling re-connection
- Cooling leak test (night)

8th July (Wednesday): Near side (opportunistic access)
- Re-cabling SC 31 & 32 (Near side)
Cooling connections

Only two lines to be drained and disconnected (SC 31 & 32 connected on the same loop)

Single line 4a to be drained

Single line 6a to be drained
Tasks and action items

- Survey SCs, Tuesday 29th Morning (Johny/Ciccio)

- Transport to P5 Tuesday 29th afternoon / Wednesday 30th morning (Michele/Ciccio)

- QC7 Flying test in the cavern, asap from Wednesday 30th (Johny/Brendan/Camilla/Laurent)

- Draining of Cooling circuits involving SC 20-31/32 to be completed by Thursday 1st Evening (Zoltan/Noemi/Mohsin/Michele)

- Bypass of gas on SC 20-31/32 by Friday 2nd (better Thursday 1st Morning) (Daniel/Mohsin)

- Removing services from SC 20-31/32 Friday 2nd morning (Michele / Daniel / Ciccio)

- Pallonier, Jig and installation tooling needs to be lowered in the cavern by Friday 2nd, in the afternoon we could also install clamps for the extraction jig on SC 20, this will speed up the operation on Monday 5th (Stephane/Pascal/Mohsin)

- Cooling and gas need to be reconnection should take place asap, (in the evening after the SC installation), to allow for immediate commissioning tests.

- Cooling leak tests to be planned possibly for the night after the installation phase (Mohsin/Zoltan/Noemi)