

Report: 24

Activity: LHC Insulation Vacuum

Jaime Pérez Espinós, Natalia Magdalena Koziol

Meeting 02/03/2020



LS2



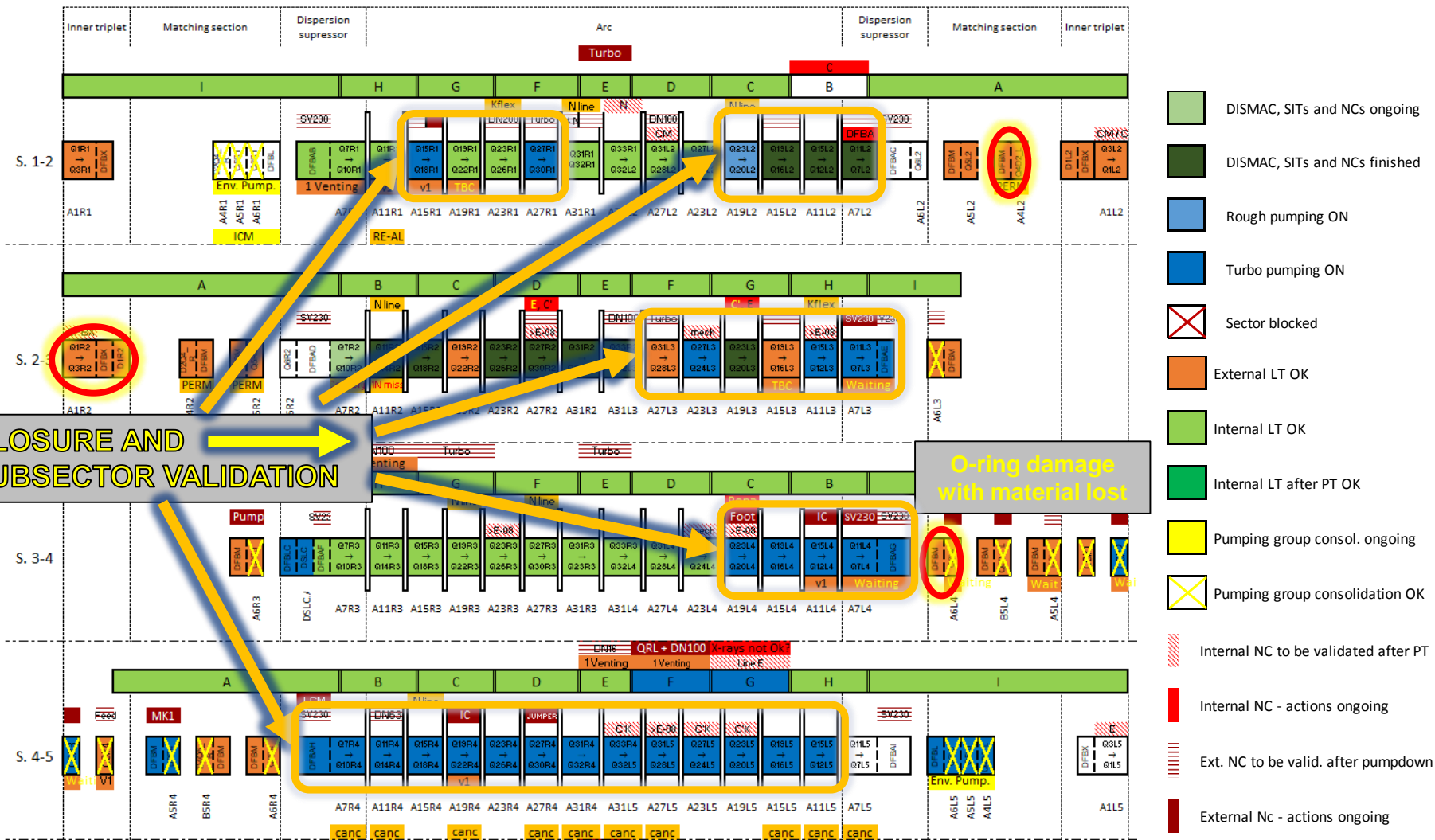
Performed activities during last 2 weeks

- Leak test activities
 - SIT
 - Local leak tests linked to magnet exchanges around Q16L2 and connection cryostat at A7L2.M (~250 leak tests) [[AL4030 + Wim + Natalia](#)]
 - Local leak tests linked to magnet exchanges in s. 6-7 and leak repair at A7L7.M [[AL4030 + Wim](#)] (~120 leak tests)
 - DISMAC
 - Leak tests on A7R6, A11R6, A15R6, A19R6 and A11L7, following validation to test only subsectors affected by SITs on cold mass volumes [[AL4030 + Natalia](#)]
- Closure and preparations for global leak tests
 - Envelope leak test of A15R1, A23L3, A11L3, A7R3, A27R3, A31R3, A23L4, A19L4, A15L4 and A19R1 [[AL4030 + Jaime](#)]
 - Repair of leaks and pump-down start at A19L4, B5L4, A5L4, A5R4, A19R4, E45.Q and F45.Q [[AL4030 + Jaime](#)]
 - Pump-down start of A19L2 and 10 vacuum subsectors in s. 4-5 [[AL4030 + Jaime](#)]
 - Turbo pumping follow-up or swap of ~20 vacuum subsectors [[AL4030 + Jaime](#)]

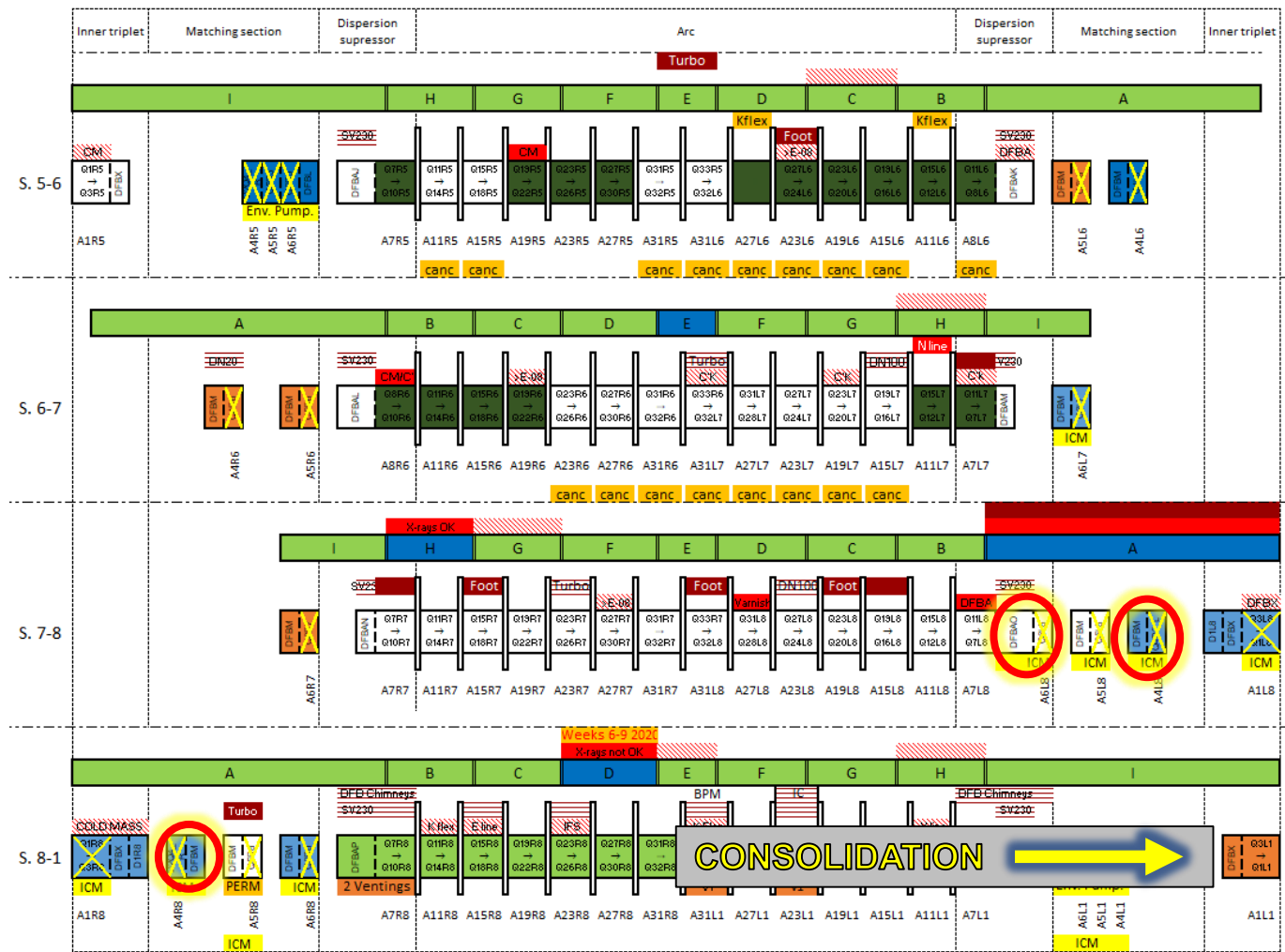
Performed activities during last 2 weeks

- Closure and preparations for global leak tests
 - Implementation of safety valve configuration at magnet exchanges of s. 6-7 [Wim + Natalia + Jaime]
 - Resolution of O-ring NCs in s. 6-7 [Natalia + Wim]
- Turbo pumping group consolidation and others
 - Pumping group consolidation at LSS pt. 1 [Wim + AL4030]
 - Follow-up of pumping group consolidation at A6L7 and LSS pt. 8 [Wim + ICM]
 - Cryostat O-ring control of standalones at every LSS [Wim + Natalia]

Tunnel activity status (sectors 1-2, 2-3, 3-4 and 4-5)



Tunnel activity status (sectors 5-6, 6-7, 7-8 and 8-1)



- DISMAC, SITs and NCs ongoing
- DISMAC, SITs and NCs finished
- Rough pumping ON
- Turbo pumping ON
- Sector blocked
- External LT OK
- Internal LT OK
- Internal LT after PT OK
- Pumping group consol. ongoing
- Pumping group consolidation OK
- Internal NC to be validated after PT
- Internal NC - actions ongoing
- Ext. NC to be valid. after pumpdown
- External Nc - actions ongoing

Planned activities for next 2 weeks

- Leak test activities
 - SIT
 - Leak tests linked to connection cryostat at A7R2.M [AL4030 + Wim + Natalia]
 - Leak tests in s. 7-8 [AL4030 + Wim]
 - DISMAC
 - Leak tests in s. 7-8 (all volumes) [AL4030 + Natalia]
- Closure and preparations for global leak tests
 - Envelope leak test of D81.Q, A15R1, A27R1, A11L3 and other ~12 volumes at s. 3-4 and s. 4-5 [AL4030 + Jaime]
 - Repair of leaks and pump-down start at A7L3, A7L4, A5R4, 2 remaining cavities and other ~5 volumes [AL4030 + Jaime]
 - Pump-down start of A7L2, A11L2, A15L2, A7L5 and other ~8 vacuum subsectors in s. 2-3 and s. 5-6 [AL4030 + Jaime]
 - Turbo pumping follow-up or swap of ~20 vacuum subsectors [AL4030 + Jaime]

Planned activities for next 2 weeks

- Closure and preparations for global leak tests
 - Implementation of safety valve configuration in A7L2 and A7R2 [Wim + Natalia + Jaime]
 - Resolution of O-rings on NCs of standalones [Natalia + Wim + Jaime]
- Turbo pumping group consolidation and others
 - Pumping group consolidation at LSS pt. 1 [Wim + AL4030]
 - Follow-up of pumping group consolidation at A6L7 and LSS pt. 8 [Wim + ICM]
 - Mechanical assembly of the last batch of pumping groups on surface (triplets pt. 1 + LSS 2) [AL4030 + Wim]

Technical issues

- Damaged cryostat O-rings found at: A4L2, A1R2, A4R2, A6L4, A4L8, A6L8 and A4R8 \Rightarrow action plan to be taken on a case-by-case basis



Technical issues

- Shock on N-line found: recommendation to replace the flexible \Rightarrow NC open + action plan defined (repair in-situ, involving hole for access on the cryostat)



QQBI.13L7, line N

AOB

- -

Thank you !



LS2

