Report: 27

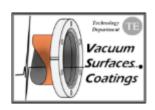
Activity: LHC Insulation Vacuum

Jaime Pérez Espinós

Meeting 06/07/2020







Performed activities during last 2 weeks

Leak test activities

- B12.Q: leak at C line; new leak research started last Friday: results need further analysis, but leak points out to service module (TBC in the following days); leak research activities to continue until Wednesday
- A23L5.M: leak at C'k circuit; local leak tests under vacuum (clamshell) ⇒ local pressurization of 2x loops @10 bar and 15 bar He + leak tests under accumulation ⇒ no He signal ⇒ multiple tries made during LS1 and LS2, no degradation observed, ICs to be closed
- A19R5.M: multiple leak tests under vacuum without success ⇒ new clamshell for M-bellows test under production, tests to continue in 1-2 weeks

Closure and preparations for global leak tests

- Envelope leak test of 4x volumes at S2-3, DSLC-DFBLC volume in S3-4 and 6x volumes at S6-7
- Pump-down start of 3x volumes in S2-3, 1x in S6-7 and 5x volumes in S7-8



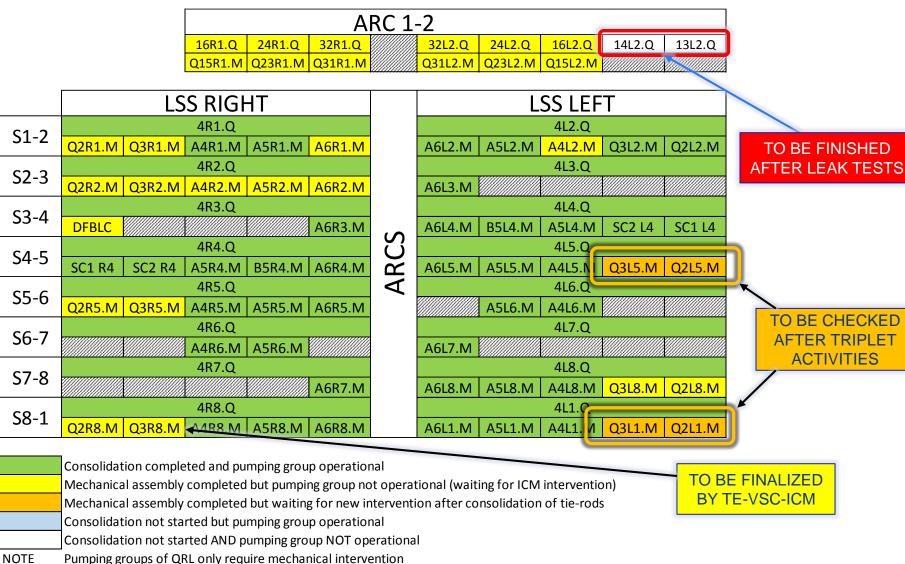
Performed activities during last 2 weeks

- Closure and preparations for global leak tests
 - Implementation of safety valve configuration in S7-8
 - Resolution of O-ring NCs in s. 7-8
- Turbo pumping group consolidation and others
 - Pumping group consolidation in S1-2
 - 12x pump-down/venting cycles in triplets

	DISCO (diode	SIT local leak	SAM activities	QRL activities	Pumping group	
	flange) local LT	tests			consolidation	
S1-2			(1)W29, (2) W28	(3) W28	(4) W28	(1) Triplet tie-rod + pumping group consolidation
S2-3			(1) W29, (2)		(5)	(2) Replacement of standalone damaged O-rings
S3-4			(2)			(3) Leak test research to continue after cryo. unlockout at B12.Q
S4-5			(1) W29, (2)			(4) Only 2 pumping groups at B12.Q to be installed at W28
S5-6			(1) W29, (2)			(5) LSS R2 pending (to be made after pressure test, W35-W37)
S6-7						
S7-8			(1) W28, (2) W28			
S8-1			(1) W28, (2) W28			FINISHED ONGOING NOT STARTED

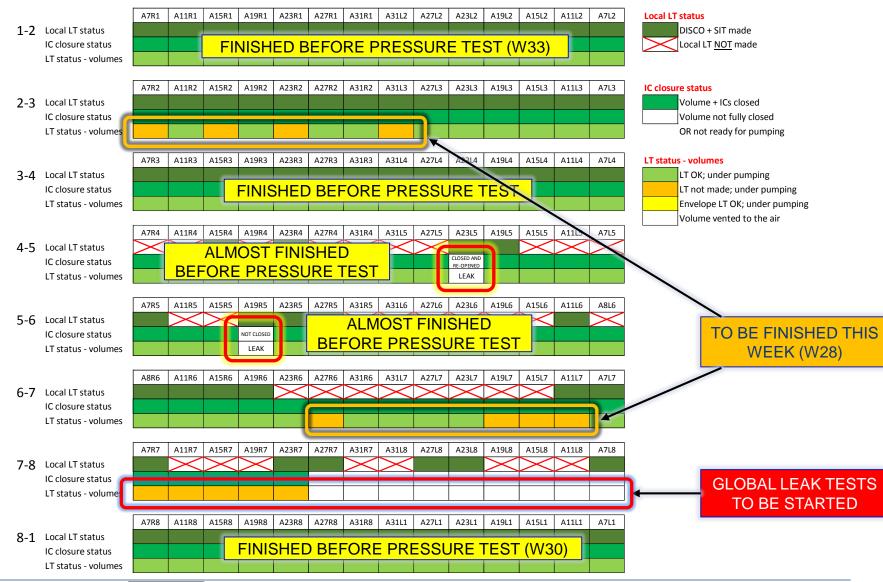


Status of pumping group consolidation





DISMAC - leak test status





Planned activities for next 2 weeks

- Leak test activities
 - B12.Q: leak at C line; FINISH leak tests @10 bar He
 - A23L5.M: leak at C'k circuit; local leak tests under vacuum (clamshell) ⇒ C' sleeves to be re-welded + lcs to be closed ⇒ re-pumping (leaking area research to continue under vacuum)
 - A19R5.M: local leak tests with new M-bellows clamshell to continue
- Closure and preparations for global leak tests
 - Envelope leak test of ~12 vacuum subsectors (finish S2-3 and S6-7 + start S7-8)
 - Pump-down start of ~9 vacuum subsectors
 - Replacement of standalone damaged O-rings (6x positions), including leak tests



Planned activities for next 2 weeks

- Closure and preparations for global leak tests
 - Finish resolution of O-ring NCs in s. 7-8
- Turbo pumping group consolidation and others
 - End of pumping group consolidation in S1-2 (2 positions at B12.Q)
 - ~8x pump-down/venting cycles in triplets



Status of resources

- AL4030: 4 teams + 2 team coordinators (50%, shared with other activities) + % of 1 store keeper (also allocated for mechanical assembly on surface)
 - Reduction to come from August on
 - 1 team coordinator on most of July and August
- CERN: Natalia, Wim, Guillermo (% varies according to his activities in cPS) and Jaime



Thank you!





