



ITS Cooling: LS1 Plan

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LS1 Schedule



		Month	mar-13				apr-13				mag-13				giu-13				lug-13				ago-13				set-13												
		Weeks	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40						
TASKS*		Sub-Detector																																					
1	Filters drilling	SPD																																					
2	Counter flow cleaning	SPD																																					
3	Old inlet pipes connection and test	SPD	█																																				
4	PP1 cooling extensions removal sector 6 & 7 (TPC request)	SPD		█																																			
5	Recalibrate p and T sensors	SPD																																					
6	Cooling rack mechanical consolidation	SPD																																					
7	Check Safety valves	SPD/SSD																																					
8	ITS cooling plants maintenance	All																																					
9	Chilled water filter Intallation	All																																					
10	CILK project upgrade	SDD/SSD																																					
11	SDD-SSD plant modification	SDD/SSD																																					
12	Remove Teflon	SSD																																					
13	Corrosion test for 1 pipe	SSD																																					
14	Service for 2 supply regulators	SSD																																					
15	Counter flow cleaning	SDD/SSD																																					
16	Filters cleaning	SSD																																					
17	Replacement of 5 p regulators	SDD																																					
18	Replacement of 10 p and T sensors	SDD																																					
19	SDD-SSD system commissioning	SDD/SSD																																					

Some activities could be carried out during maintenance of the plants: to be checked with the experts according to their availability



EN-CV Detector cooling schedule



Month	mai.2013		juin.2013				juil.2013				août.2013					sept.2013				oct.2013			
Weeks	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
SF			Maintenance SF + Chilled water upgrade + New Control																				
UW													Maintenance UW + New Control										
Piping UX				Piping chilled & mixed water completely empty in UX																			
Experiment	Transport Exp																						
TPC FEEC					Replacement Tank																		
TRD					Replacement Tank																		
TOF								Dcal Loop															
SSD/SDD						SWAP				Maintenance													
HMPID										Maintenance													
SPD			Station impossible to keep in run without primary circuit + Maintenance																				
TPC Rods										Maintenance													

	Cooling running full power
	Cooling degraded running (without primary circuit)
	Cooling not available



LS1 plans: SPD



SPD

1. Remove the new inlet pipes
2. Cooling rack mechanical consolidation
3. Drill and clean the filters in the remaining sectors
4. Counter-flow cleaning (between PP4 and PP1)
5. install chilled water filter
6. Check safety valves
7. Recalibrate T and p sensors (PP4 and PP1)
8. **Plant upgrade (tbd)**



LS1 plans: SDD and SSD



SDD (cooling always ON)

1. install chilled water filter
2. replace 10 pressure and Temp sensors
3. replace 5 pressure regulators
4. counter-flow cleaning (1 month)
5. CILK project upgrade (July 2013)

SSD (cooling always ON)

1. install chilled water filter
2. counter-flow cleaning (1 month)
3. check safety valves
4. corrosion test on 1 pipe
5. remove Teflon
6. service for 2 supply regulators
(2 spares are available EN-CV)
7. CILK project upgrade (July 2013)

The water in the system can circulate also during the general CV systems maintenance (i.e. cooling towers)