

SPIRE/PACS (CEA-SBT)	Monthly Report – August 2004	Date:	September 2 nd , 2004
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Work Package: Cooler

1. Subsystem Progress Since Project Inception		
FM / FS units assembling in progress		
2. Subsystem Progress This Month		
<ul style="list-style-type: none"> - FM/FS assembling - Structures (4): available - Cooler hearts (4) : Proof pressure tests to 200 Bars successfully carried out. Heart #2 (SPIRE) mounted in dummy structure in test cryostat and cold filled (slightly overfill – expected pressure at room T : 85 B (was 75 for CQM SPIRE)). Successfully pretested : 263 mK ultimate, cooling power curve OK and T stability at end of cycle with 20 μW applied : OK (overfilling can induce T drift). Filling of heart#4 to follow; in parallel : integration of heart#2 in structure (then Kevlar cords training, integration of switches, etc...). - Heat switches (10) : all switches thermally characterised. 8 are fine, 1 is not excellent and 1 is defective (degraded OFF position). No problem spotted with switching time. Allocation of switches to FM/FS done. Risk analysis : no spare switch available; new batch of (2 or 4, TBD) to be manufactured. On the 8 selected switches : final integration of flight thermometers and heaters. - Titanium STM : Kevlar cords training in progress (final operation end of week 36). One of the 8 switches available to be used for cryovibration of the STM (will use switch allocated to PACS FS). TBD but switch for PACS FS to be replaced by switch from new batch - Cooler Drive Electronic (Lab) : now used for all models in the lab 		
3. Problem Areas	Remedial Action	
4. Engineering Activities		
5. Design Changes		
6. PA/QA Activities		
General QA management.		
7. Subsystem Management Issues		
None		
8. Actions Requiring Immediate Attention		
SBT documents approval by SPIRE and PACS projects		
9. Status of Previous Actions		
None		
10. Activities Yet to be Achieved		
11. Milestones	Status	
Winter 00-01	Coolers Detailed Design	Completed
May 17 th 2001	Coolers DDR (PACS & SPIRE)	Completed
June 26 th 2001	Subcontractor selection for machining	Completed
October 2001	Parts Delivery	Completed
Spring 2003	CQM Coolers assembling	Completed
Nov/Dec 2001	STM Coolers Assembling and Vtest	Completed
Nov. 2002	STM Coolers delivery	Completed
Spring 2003	CQM Coolers Qualification	Completed
Autumn 2003	CQM Coolers Delivery	Completed
Winter 2003	FM manufacturing	Completed
Spring / Summer 2004	FM assembling	In progress
12. Schedule Changes		