

SPIRE/PACS (CEA-SBT)	Monthly Report – November 2003	Date: December 1 st , 2003
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Work Package: Cooler

SPIRE-SBT-REP-001893

1. Subsystem Progress Since Project Inception		
Product Assurance plan implemented. STM units delivered to SPIRE and PACS. CQM units delivered to SPIRE and PACS – SPIRE CQM back at SBT for strings replacement (retensioning following new procedure).		
2. Subsystem Progress This Month		
<p>- CQM PACS : Last thermal checks prior to delivery successfully carried out. Surprisingly extra parasitic of 8-10 μW has disappeared. Hold time under 10 μW load and 1.7 K / 4 K conditions : 47 hours (consistent with predictions assuming cooler is still underfilled). Cooler delivered to SAp on Nov 6th.</p> <p>- Kevlar characterisation campaign : New tensioning procedure available (may need some refinement)</p> <p>- CQM SPIRE : sent back to SBT for strings replacement following new procedure. Strings replaced. Thermal tests carried out after strings replacement : ultimate temperature of 311 mK ! (additional load). Cooler warmed up and inspected : possible contact between evaporator cernox wires and aluminium cover; cover readjusted. Switch centered in snubber; “touch” test did not reveal any peculiar behaviour. Cooler cooled back down for retest. Results expected week 49.</p> <p>- FM manufacturing in progress (to the exception of the heat switches)</p>		
3. Problem Areas		Remedial Action
SPIRE CQM thermal perf. degraded after strings replacement		Under investigation
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 – main documents currently updated following FM phase review : will sent again when completed.		
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	(SPIRE returned to SBT. To be re-delivered Dec 03). In progress
12. Schedule Changes		