

SPIRE/PACS (CEA-SBT)	Monthly Report – March 2002	Date: April 2 nd 2002
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Work Package: Cooler

SPIRE-SBT-REP-001231

1. Subsystem Progress Since Project Inception		
Detailed design of the coolers (CQM, STM, PFM & FS) done. Manufacturing of 2 CQM + 2 STM done. Manufacturing of new large test cryostat done (“standard” test cryostat available). Product Assurance plan implemented.		
2. Subsystem Progress This Month		
<ul style="list-style-type: none"> - Closing of cooler hearts by EB welding done : cooler heart delivered to SBT – no problem spotted – Leak and proof pressure tests to follow - Subcontractor (Brasing) : Failures on 2 heat switches (out of 4) - during last brasing process one switch got bent. The other one is geometrically incorrect. Following this problem, subcontractor attitude not acceptable. Currently in conflict with him. In any case parts for 5 new switches currently being made. New subcontractors for the assembly (Titanium/copper brasing) identified : SBT will qualify one. Impact on planning to be evaluated - All structures : angle bracket added (EB welded); no particular problem. Slight deformation remains on some but is compatible with heat switches mounting. - Last machining phase on all structures done. Structures to be delivered to SBT Monday 8th April. - STM cooler available. Training on Kevlar cords mounting to begin. Vibration tests to follow - Clean room implantation on going - Kevlar characterisation campaign : fatigue test on going – Curve shaping up - Wiring and instrumentation of large test cryostat done. First thermal tests performed – performance satisfactory. Autonomy at 1.8 K exceeds 72 hours as expected 		
3. Problem Areas	Remedial Action	
4. Engineering Activities		
Tensiometer : in contact with subcontractor : couple of solutions will be evaluated To be initiated : following PACS agreement to electrical isolation (consistency with SPIRE) solutions need to be identified and qualified		
5. Design Changes		
6. PA/QA Activities		
Inspection, anomalies, etc...– documentation updated - 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
Nov/Dec 2001	CQM Coolers assembling	Pending solution to problem with heat switches
Nov/Dec 2001	STM Coolers Assembling and Vtest	Available end of April– V test May/June
Dec 2001	STM Coolers delivery	Delayed, but compatible with projects planning
Winter 01-02	CQM Coolers Qualification	Pending solution to problem with heat switches
Spring 2002	CQM Coolers Delivery	Pending solution to problem with heat switches
12. Schedule Changes		
See above – Pending solution to problem with heat switches		