

<b>SPIRE/PACS</b> (CEA-SBT)	<b>Monthly Report – September 2004</b>	<b>Date:</b> October 1st, 2004
--------------------------------	--	-----------------------------------

**Work Package: Cooler**

<b>1. Subsystem Progress Since Project Inception</b>		
FM / FS units assembling in progress		
<b>2. Subsystem Progress This Month</b>		
<ul style="list-style-type: none"> <li>- FM/FS assembling</li> <li>- Structures (4): available</li> <li>- Cooler hearts (4) : all cooler hearts successfully proof pressure tested at 200 Bars. Heart #2 (SPIRE) and #4 (PACS) filled at respectively 86 B/20°C and 80.8 B/20°C. Pre thermal tests mounted in dummy structure OK.</li> <li>- FM1 (SPIRE) : cooler fully assembled; Kevlar training carried out. First set of thermal tests carried out : results in accordance with predictions (ultimate T 258 mK with bath at 1.6 K – insensitive to orientation – Autonomy tests : 7h10 with 200 <math>\mu</math>W applied, 40h49 with 30 <math>\mu</math>W applied; bath at 1.6 K). Unit currently undergoing 5 days 80°C bake out.</li> <li>- FM2 (PACS) : cooler fully assembled; Kevlar training carried out. First set of thermal tests ongoing (ultimate T 254 mK with bath at 1.6 K K – insensitive to orientation).</li> </ul> <p><i>Note : for FM1 and FM2 : Cernox thermometers are calibrated down to 260 and 290mK respectively. The 254 258 mK difference is not significant; could be due to fit.</i></p> <ul style="list-style-type: none"> <li>- Heat switches : New batch of 4 to be manufactured (for spares and as replacement for PACS FS (1 used for STM titanium)).</li> <li>- Titanium STM : Fully assembled. Training on suspension system carried out. Unit delivered to SAp on week 38</li> <li>- Cooler Drive Electronic (Lab) : now used for all models in the lab</li> </ul>		
<b>3. Problem Areas</b>	<b>Remedial Action</b>	
<b>4. Engineering Activities</b>		
<b>5. Design Changes</b>		
<b>6. PA/QA Activities</b>		
General QA management.		
<b>7. Subsystem Management Issues</b>		
None		
<b>8. Actions Requiring Immediate Attention</b>		
SBT documents approval by SPIRE and PACS projects		
<b>9. Status of Previous Actions</b>		
None		
<b>10. Activities Yet to be Achieved</b>		
<b>11. Milestones</b>		<b>Status</b>
Winter 00-01	Coolers Detailed Design	Completed
May 17 <sup>th</sup> 2001	Coolers DDR (PACS & SPIRE)	Completed
June 26 <sup>th</sup> 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	Completed
Fall 2004	FM Acceptance program	On going
<b>12. Schedule Changes</b>		