SPIRE/PACS (CEA-SBT)

Monthly Report – November 2002

Date:

December 2nd, 2002

Work Package: Cooler

SPIRE-SBT-REP-001468

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. STM units delivered.

2. Subsystem Progress This Month

- CQM units: first unit ready for initial testing (filling, etc...) initial testing expected week 50. Second unit will be ready by end of week 49.
- Heat switches: Assembly of 5 heat switches almost done. Should be available by end of week 49.
- Structures : available To be confirmed : minor modifications to be implemented following SAp demand (additionnal threaded holes for thermal shields mounting might be done only on PACS structure).
- STM units : both STMs have been cold vibration tested at RAL (\approx 85 K). Successfully passed but unexpected decrease in the resonant frequencies by 23% for the largest shift. Under investigation. STM S/N1 delivered to RAL. STM S/N2 to be delivered by RAL to SAp in the coming weeks
- Kevlar characterisation campaign and Tensiometer: strong focus on this matter. New tests being done.

| 3. Problem Areas | Remedial Action | |
|------------------------------|---------------------|--|
| Peculiar behaviour of Kevlar | Under investigation | |
| 4. Engineering Activities | | |
| Tensiometer | | |
| 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

| s | Status |
|---------------------------------------|--|
| Coolers Detailed Design | Completed |
| Coolers DDR (PACS & SPIRE) | Completed |
| Subcontractor selection for machining | Completed |
| Parts Delivery | Completed |
| CQM Coolers assembling | Awaiting for heat switches final assembly |
| STM Coolers Assembling and Vtest | Completed |
| STM Coolers delivery | Completed |
| CQM Coolers Qualification | Awaiting for heat switches final assembly |
| CQM Coolers Delivery | TBD |
| | Coolers Detailed Design Coolers DDR (PACS & SPIRE) Subcontractor selection for machining Parts Delivery CQM Coolers assembling STM Coolers Assembling and Vtest STM Coolers delivery CQM Coolers Qualification |

12. Schedule Changes

See above – related to subcontractor problem with heat switches