

**From:** Lionel Duband [duband@drfmc.ceng.cea.fr]

**Sent:** 09 May 2001 09:29

**To:** K.J.King@rl.ac.uk; AUGUERES@dapnia.cea.fr; b.m.swinyard@rl.ac.uk; rodriguez@hep.saclay.cea.fr; J.A.Long@rl.ac.uk; rlclerc@drfmc.ceng.cea.fr; miquet@drfmc.ceng.cea.fr; vallcor@drfmc.ceng.cea.fr;

dguillau@drfmc.ceng.cea.fr; pdupont@drfmc.ceng.cea.fr; J.A.Long@rl.ac.uk

**Subject:** HSO/SPIRE&PACS/Sorption Coolers - April 2001 Progress Report  
**HSO - SPIRE & PACS Sorption Coolers - April 2001 Progress Report**

Bonjour,

## **GENERAL**

**SPIRE-SBT-REP-000794**

- The full set of the detailed drawings of the cooler is available. All drawings are currently being checked.

- A "pre ITT" has been published in "Usine Nouvelle" for the cooler manufacturing. All interested subcontractors must indicate their interest by May 21st at the latest. These subcontractors will then be asked to bid. Cooler manufacturing is expected to start middle of June.

- The cooler DDR will be held in Grenoble on May 17th. In preparation for this meeting a set of documents has been sent to all attendees; this set comprises the following:

*PA Plan (PAP)*

*Declared Material List (DML)*

*Declared Process List (DPL)*

*Hardware tree (H/W)*

*Manufacturing, Assembly, Integration & Test (MAIV) Flow Chart*

*Configuration Item Data List (CIDL)*

*Interface Control Document*

*Cooler Specifications*

*Development Plan*

- Reliability analysis (FMECA) : Document is being reworked by LGM Consultant.

- Quality assurance : PA Plan implemented. Various documents are now available.

## **COOLER DESIGN**

- Done

- Numerical modeling of the overall cooler still in progress. We hope to have preliminary results for the DDR

### **ACTIONS LIST**

- None

### **VARIOUS**

- We have started a new characterisation campaign on Kevlar. The results will be documented in a technical note.

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### **DOCUMENTS STATUS**

These are the documents which were written specifically for SPIRE/PACS.

#### **\* CEA-SBT**

Each document is named following : "SPIRE & PACS SORPTION COOLERS, Title"

List of available Title to date :

\* Title : "Development Plan"

HSO-SBT-PL-002 Issue : 2 - Revision : 2  
modification : reformatted + minor modifications

\* Title : "Specifications"

HSO-SBT-PL-001 Issue : 2 - Revision : 6  
modification : none

\* Title : "Manufacturing, Assembly, Integration & Test (MAIV) Flow Chart"

HSO-SBT-FC-003 Issue : 0 - Revision : 0  
modification : new document - not issued yet

\* Title : "Declared Material List (DML)"

HSO-SBT-LI-004 Issue : 0 - Revision : 0  
modification : new document - not issued yet

\* Title : "Declared Process List (DPL)"

HSO-SBT-LI-005 Issue : 0 - Revision : 0  
modification : new document - not issued yet

\* Title : "Declared Process List (DPL)"

HSO-SBT-LI-005 Issue : 0 - Revision : 0  
modification : new document - not issued yet

\* Title : "PA Plan (PAP)"

HSO-SBT-PL-006 Issue : 0 - Revision : 0  
modification : new document - not issued yet

\* Title : "H/W Tree / Drawing List"

HSO-SBT-LI-009 Issue : 0 - Revision : 0  
modification : new document - not issued yet

\* Title : "Configuration Item Data List (CIDL)"

HSO-SBT-LI-010 Issue : 0 - Revision : 0  
modification : new document - not issued yet

\* Title : "Critical Item List (CIL)"

HSO-SBT-LI-011 Issue : 0 - Revision : 0  
modification : new document - not issued yet

\* Title : "Interface Control Document (ICD)"

HSO-SBT-ICD-012 Issue : 0 - Revision : 0  
modification : new document - not issued yet

\* Title : "AIV Plan"

HSO-SBT-PL-013 Issue : 0 - Revision : 0  
modification : new document - not issued yet

### TECHNICAL NOTES SERIES

\* Title : "Thermal coupling of the sorption pump to the cold heat sink. heat switch versus passive link"

TNS1 Issue : 1 - Revision : 1  
modification : none

\* Title : "Discussion on 4 liters versus 6 liters unit & ultimate temperature improvement"

TNS2 Issue : 1 - Revision : 0  
modification : none

\* Title : "Temperature regulation"

TNS3 Issue : 0 - Revision : 0  
modification : none

Best Regards  
Lionel Duband

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\*\* ATTENTION : New Phone and Fax number \*\*

Lionel Duband                      CEA - Grenoble  
Cryocoolers and space cryogenics      Service des Basses Temperatures  
Voice: (33) (0)4 38 78 41 34      17 av. des Martyrs  
Fax: (33) (0)4 38 78 51 71      38054 Grenoble Cedex 9 FRANCE  
E-mail: duband@drfmc.ceng.cea.fr

"Work for the future. That is where you are going to spend the rest of your life."

-- Mark Twain