

# Crab Cavities Technical Coordination XXIV



**Location:** 376/01-020  
**Date:** 10th April 2017  
**Time:** 10.30  
**Scope:** coordination and alignment of tasks involved in the preparation of SPS tests, follow up of master plan.  
**Attendees:** Alick Macpherson, Rama Calaga, Giovanna Vandoni, Mateusz Sosin, Aurelio Berjillos Barranco, Silvia Verdú Andres, Karl Schirm, Frida Maria Eriksson

**Workflow:** EDMS 1703245

**Master schedule:** EDMS 1747466

**Logbook:** <http://elogbook.cern.ch/eLogbook/eLogbook.jsp?lgbk=387>

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## Status:

### Cavity #1 (Workshop)

The cavity is being dressed. A couple of issues with the mounting of the pieces (e.g. sequence not fully working, small unconformities etc...). The magnetic field inside the shield will be quickly checked once everything is assembled, then the dimensions are controlled and the tank goes finally to the welding steps. So far the final delivery is in line with the estimates. Alick asked to be promptly notified so that he can adjust the schedule for cavity#2 accordingly. Carlo explained that the welding sequence requires about 17 working days, due to the long time needed for pumping the right atmosphere in the glove box.

### Cavity #2 (SM18)

Cavity#2 was helium processed after cold test, but that degraded the performance. The cavity will therefore be light BCP-ed, rinsed with HPR and re-tested. The installation on the insert for the cryostat is foreseen for Tuesday the 18<sup>th</sup>.

## Planning:

Aurelio asks to refer to the last update of his planning, that is always on EDMS. If other software or other versions are used than MS Project 2013, the coherence of the milestones with Aurelio's pdf must be verified.

## AOB:

- Important topics to be assessed:
  - LLRF for both SPS and SM18. Self-excited loop in SM18 tested successfully by Alick's team. It is advisable to have SM18 and SPS systems as close as possible.
  - Test plan for cryomodule (minimum required, desired and relevant infrastructure)
- Ad-hoc meetings will be organized outside the CCTC and reported here for final decisions.
- Dressed cavity test in preparation. Support needed from MME for designing holders for part of the instrumentation.
- DG visit on the 20<sup>th</sup>:
  - Cavity#2 under testing, would be nice to show what's going on
  - If feasible, cavity#1 will be shipped there for a couple of hours

- Posters and/or images are welcome.
- It's the ideal moment for showing and discussing future plans and needs for SM18
- Acceptance criteria: approval should be with the project management. Carlo and Rama will see what is the exact procedure.
- EN/MME needs some space to store cavity tooling, Karl suggests the long-term storage, which is easy to trace and recuperate.
- Review outcome summary expected next Thursday

Agenda next meeting: status of cavity #1 and #2, review outcome, follow-up of ad-hoc meetings

## Action list:

### General and Planning:

ID	Action	Responsible	Opened	Closed	Result, Comment
42	Timeframe for cryo shutdown to be agreed	Frank	30.1.2017	27.2.2017	15.8.2017 – 30.9.2017
49	Define detailed test sequence of Cryomodule in SM18	Alick (inputs needed)	27.2.2017		Inputs needed (RF, cryo, vacuum...)
51	Follow up DG visit to SM18 on 20.4.2017	Frank	13.3.2017		PoP or US cavity may be available, otherwise there will be posters and test pieces from the workshop and the start of the portique

### Documentation:

ID	Action	Responsible	Opened	Closed	Result, Comment
32	Approve and/or comment acceptance criteria	Task leaders	19.12.2016		Approval resumed after comments
44	MTF to be updated with actions on chemical processing, heat treatment and RF conditioning	Carlo	30.1.2017		Input needed by Alick

### Design:

ID	Action	Responsible	Opened	Closed	Result, Comment
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### Cavity production and processing:

ID	Action	Responsible	Opened	Closed	Result, Comment
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### Tools & Ancillaries:

ID	Action	Responsible	Opened	Closed	Result, Comment
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43	Tools for monitoring alignment in clean room	Mateusz	30.1.2017		Mateusz will organize a wrap-up meeting
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### Space:

ID	Action	Responsible	Opened	Closed	Result, Comment
14	Follow up reservation of assembly and storage areas in SM18	Karl, Rama	1.8.2016		Space request in SMA18, 200 m2. Visit service agreed in leaving us the sofas space in SM18. Space between bunkers in SM18 can be used, but it's not a working area and it cannot be accessed while tests in cryostats are running (radiation). Alick to provide test plan to Marco
37	Urgent need of storing space	Rama	9.1.2017		bldg. 162 will be available in a few weeks
38	Buffer space for transfer table	Kurt, Rama	9.1.2017		Final decision after EYETS
48	Make sure the space in front of the clean room is free when needed (portique installation)	Karl	27.2.2017		

*Minutes taken by Carlo*

*Next meeting: Monday 24th of March 2017*