



Minutes of the 24th CTF3 Committee

Thursday 24th March 2011

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Participants at CERN:

U. Amaldi, A. Andersson, S. Verdu Andres, R. Corsini (Chairman), M. Di Rosa, S. Doebert, W. Farabolini, A. Grudiev, J. Kovermann, G. McMonagle, K. Schirm, P. Skowronski (secretary), F. Tecker.

Participants via EVO:

Uppsala: V. Ziemann
CIEMAT: L. Sanchez

Excused:

J-P. Delahaye, G. Riddone, W. Wuensch, I. Syrathev, G. Montoro, F. Toral, R. Ruber.

Comment on Minutes of the 23rd CTF3 Committee:

Minutes of the previous meeting were approved without any comments. Roberto announced that, as from the present meeting and in preparation to his retirement, Louis Rinolfi will be replaced as scientific secretary of the CTF3 Committee by Piotr Skowronski. Roberto expressed his warm thanks to Louis for his precious contribution, and made his wishes to Piotr for a fruitful collaboration in the future.

Collaboration news (R. Corsini)

- a) Tor Raubenheimer, the chairman of ACE, presented to the Collaboration board the conclusions from the last Advisory Committee meeting. ACE recommendations were already widely discussed on many past meetings. Generally, we have received very positive comments.
- b) During the last Collaboration Board Steiner Stapnes presented the updated CLIC project timeline adjusted to meet the deadlines for next European Strategy for Particle Physics meeting.
- c) Collaboration between CLIC and the UK institutes is under discussion. The Kick-off meeting is scheduled within few weeks. The British institutes are interested to work on the phase feed-forward system and several other projects dealing with hardware development.
- d) The next Collaboration board will take place on May 19. Steiner Stapnes will present planning for the next few years.
- e) Addendum to the CLIC/CTF3 MoU for the NIKHEF contribution is under preparation.

Presentation of Frank Tecker on "Update on CTF3 Operations, schedule for 2011"

<http://indico.cern.ch/getFile.py/access?contribId=6&resId=0&materialId=slides&confId=132210>

Comments/Questions:

- a) CALIFES: the laser is currently twice more powerful, however, the electron beam is not more intense. It seems that the mirror inside the gun is less and less reflective. The mirror for PHIN was also affected this year and had to be exchanged. Bunch length measurements were done previously via energy spread measurement when sending the beam through 12GHz accelerating cavity on zero crossing phase. In order to use the RF deflector installed in the CALIFES line for bunch length measurements, the klystron 14 waveguide has to be switched. This will prohibit beam recombination in the Combiner Ring until it is reconnected again.
- b) Installations: It is likely that the installations currently planned on July-August will be postponed to a later date if the studies using the currently installed hardware would not be completed until then (accelerating structure in TBTS, 4 PETS in TBL) or the new devices (PETS on-off mechanism, 4 additional PETS tanks) would not be ready yet.
- c) Question to Steffen Doebert, whether he foresees another PHIN run this year. Yes, however, not before August. Most of the goals were already achieved, but more studies are to be done. The exact date will be discussed during following days. The run should not be shorter than 2 weeks, preferably 3, since the start-up always takes some time.
- d) Steffen Doebert requested to organize the CTF3 planning such that a particular study is assigned more than 1 day slot. 2-3 day slots should increase work efficiency since the overhead dealing with beam preparation for a particular experiment would be relatively reduced. Roberto agreed, and suggested to define scheduling at Monday operations meetings for following 3 weeks in order to plan and organize the schedule in this manner.
- e) Gerard McMonagle inquired about 5Hz repetition rate of CTF3. In case we would like to run with 5Hz rep. rate it is desirable to bar-off the end of gallery. In this part the floor is thinner what leads to increased level of radiation comparing to other areas. In case of 5Hz operation the levels may reach unacceptable values for an area where people can spend unlimited time.

Presentation of prof. Ugo Amaldi on "Proposals for CTF3 modifications, new installations or experiments"

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The TERA Collaboration expresses interest in performing tests and measurements of their experimental accelerating cavities using RF power from CTF3 klystrons. In order

to perform the breakdown rate studies a high repetition rate is required (or a long testing time). The latter option would mean that the measurement could only be done parasitically, in parallel with nominal CTF3 operation, since we cannot spare any of our klystrons. However, in this case some potentially expensive high power RF equipment would need to be provided by TERA and installed in CTF3 (splitter, variable attenuator). The following scenarios were discussed

- a) Use of klystron 30 (Califes/PHIN) in August during installations in CLEX. The cavity would be placed in CTF2 area and connected to the PHIN waveguide. Klystron 30 has maximum rep. rate of 5Hz.
- b) Klystron 14 (CR RF deflectors / RF deflector in Califes for bunch length measurements) in parasitic mode with CR RF deflectors, since it has large power margin and can pulse up to 100 times per second.
- c) Klystron 14 during shutdown, meaning in January 2012.
- d) For TERA solution b) is preferable, however, it is not certain that they can find the required equipment. In the current situation option a) is to be followed.
- e) In any case, an automatic acquisition and control software has to be prepared to perform conditioning and measurements. Jan Kovermann will help in design and set-up such a system.

Presentation of Steffen Doebert on “Status of TBL, results and planning”

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No comments or question asked.

Round table + AoB

Alexandra Andersson brought up to our attention that the company fabricating the 12GHz accelerating structure with wake-field monitors built in has their machining tool broken. The reparation time, and hence the time of completion of the production is not defined.

P. Skowronski