Weekly Reports - GIF^++^ Users Meeting

Meeting : 09.03.2023 - 9h
Present :

Announcements from GIF^++^ Coordination

:::danger

- Current problem with the source control.
  In contact with company to schedule intervention.
  :::

Procedure to restart the system -> See below

YETS 22/23:

:::warning

- 08.03.2023 - Gas detection system maintenance -> no isobutane for few minutes - DONE
- 15.03.2023 - Fire detection system maintenance -> no isobutane for few minutes
- 05.04.2023 - DSO Test EHN1 beam lines
  :::
  Full list of electrical tests during YETS 22-23 : https://edms.cern.ch/document/2768566/

Safety:
:::warning

- Electrical inspection - Some safety remarks to be solved. Passed yesterday for all the setups. Few minor point still to fix but the majority of the last points are fixed
- NEW Safety Form under finalisation : ISIEC -> ISD !
  We will move to the "Initial Safety Declaration" asap.
  :::

- First Aid - SST Initial (workplace first aider)

:::info
NA - EHN1 Physics Start : 24.04.2023, stops end of September
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Muon Beam 2023:

Draft received : 3 x 2 week, shared with RD51.
Wk 17+18 : **Monday April 24th** – Wednesday May 10th (17 days)
WK 27+28 : Wednesday July 5th – Wednesday July 19th (14 days)
WK 34+35 : Wednesday Aug, 23rd - Wednesday Sept. 6th (14 days)

See EXCEL file in Indico agenda & PDF file.

Weekly Reports :

Please update before or during the meeting !

ATLAS-RPC: (Giulio)

- We will operate the BIS7 Mod.zero in the usual position at the end of downstream area, we will turn on the chamber by the first week of March and will participate to all test beams
- We expect to add a Phase2 prototype before Summer, we will study how to integrate it in the present frame to avoid any further space occupancy

ATLAS-RPC-Legacy: (Giulio)

- We will add, right in front of of ATLAS-RPC, a smaller stand with a 2mm RPC ATLAS-like doublet to validate the standard mixture with additional CO2. The base area of the setup is 70x60 cm^2 and 2m high. It is supposed to perform a fast ageing test and periodical performance scan with the beam. The results will validate the use of such mixture in ATLAS RPCs
- this stand is on wheels and is light and easily moveable
- expected to be installed in February and participate to all test beams

ATLAS-MM: (Valerio)

- Both setups in position, powered ON and accumulating charge
- Performing a scan in gas flow with constant source attenuation downstream (exploiting nights and unbooked slots), with O2 sensor installed on the output line in the gas area above the rack zone.
- Preferred beam slots: July WK 27+28, August-September WK 34-36 (better 35-36) as backup in case of need

CMS-CSC: (Katerina, Victor)

- chambers are commissioned,
- gas system in closed loop from Monday
- irradiation to be started today

ATLAS-MPI: (Elena, Giorgia, Francesco, Markus)

- **Setup Maintenance**
    - setup currently safely stored in the preparation area;
    - the plan is to come back to the bunker by **March 2023**:
        - Test of evolutions of the new front-end electronics for the sMDT chambers (with muon beam / cosmic ray muons at different γ backgroundlevels);
        - Performance and aging test on the RPC prototype produced by the new manufacturer (Plan to integrate RPCs into the sMDT set-up).
            - Test of small size RPCs (50cm × 50cm)
            - Test of large size ATLAS RPCs (1m x 2m)

        - **Preferred beam periods**: May 2023, July 2023, October 2023.

- **Weekly Planning**
    - 15:00 - 16:00, quick access to the bunker - survey for future installation of RPC / sMDT detector services

CMS-GEM: (Davide, Ashok)

- 2023 plans only for test beams, see you soon :)

EP-DT2: (Mattia)

- On going: resolving safety issue (rack door now ok, I need to find the cover for the electrical box).
- started the leaking search for the new set-up, need to check the last gas line in the next days -> it will be done tomorrow morning.
- Irradiation campaign ongoing without any further issues.

Ecogas: (Luca)

News:

- Currently flushing ECO2 (35/60 HFO/CO2)
- Aging is ongoing
- We will join July and end of August test beams

Access request:

- None

CMS-RPC: (João)

- Agreed with gas group to use old eco gas mixture for co2 based studies
- Next Wednesday we will check the gas line and possible splitting point for ATLAS and CMS.

CMS-DT: (Lisa)

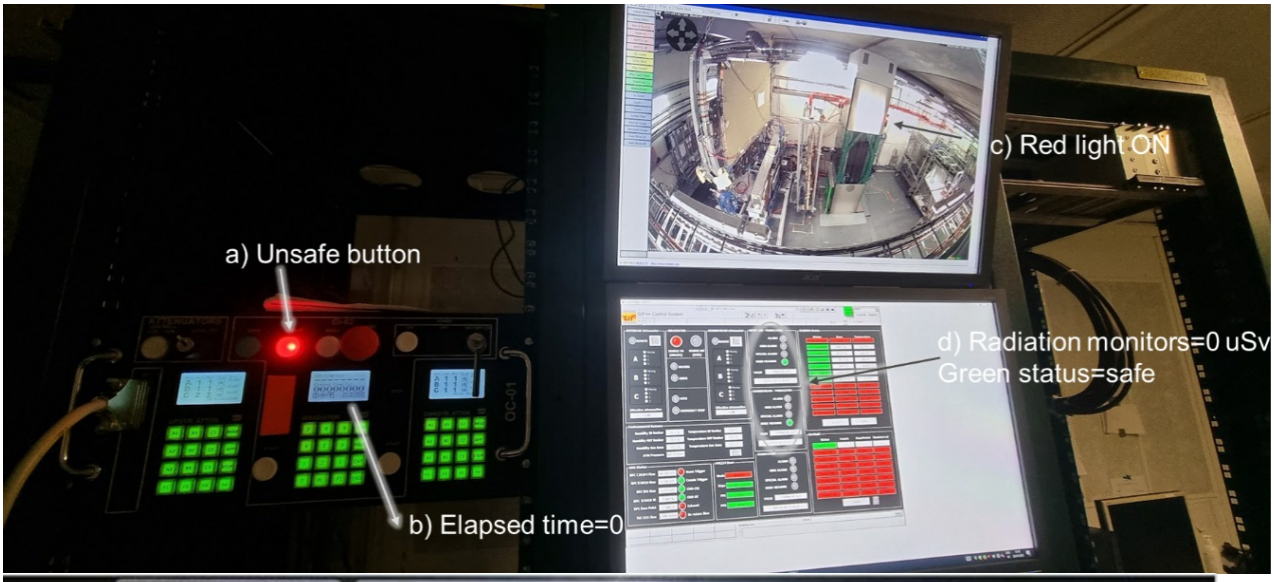
- source scan today afternoon (maybe anticipated due to the access request from ATLAS-MPI?), then continue irradiation at 2.2 upstream

ProToV: (Alessandro)

- Plan to put the trolley in the upstream side to start the aging test of the small prototypes
- Check the trolley placement and the service routing

Procedure to restart the system

SOURCE ISSUE GIF++
Source status OFF -> trying to switching ON the source via the START button (g)
The source is trying to go ON but, even if the unsafe button (a) and the red light (c) shows the SOURCE ON, the elapsed time (b) doesn't start.
We are able to prove that the source didn't go ON since the ionization chamber (PMIs) and some other dosimeters in the bunker, shows a dose/rate = ~ 0 uSv/h. Moreover, also the access system gives us the possibility to access the bunker since the PMIs don't shows any radiation.
In order to turn the Source ON we are obliged to power cycle the control unit via the ON-OFF key (e). After this reset, we are able to switch ON the source.
Source status ON à trying to switching OFF the source via the STOP button (f)
The source doesn't go OFF
We are able to prove that the source didn't go OFF since the ionization chamber (PMIs) and some other dosimeters in the bunker, shows a dose/rate > 0uSv/h. Moreover, also the access system doesn't give us the possibility to access the bunker since the PMIs shows high radiation level.
In order to turn the Source OFF we are obliged to power cycle the control unit via the ON-OFF key (e). After this reset, the source goes OFF.



Current minutes by the respective speakers, edited and commented by Martin & Giuseppe. Minutes from previous meetings can be found attached to the respective

page as PDF.