Report on weekly shift

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Ecogas weekly meeting 14/03/2024

System status

- System currently flushing with ECO2 gas mixture
- Aging resumed after source OFF yesterday
- HFO bottle at ~2 kL \rightarrow 600/700 liters left
- T3 cleaned up last week and now everything is back to normal (I forgot to reattach the GND cable of SHiP but it's ok now)

Scans of the week

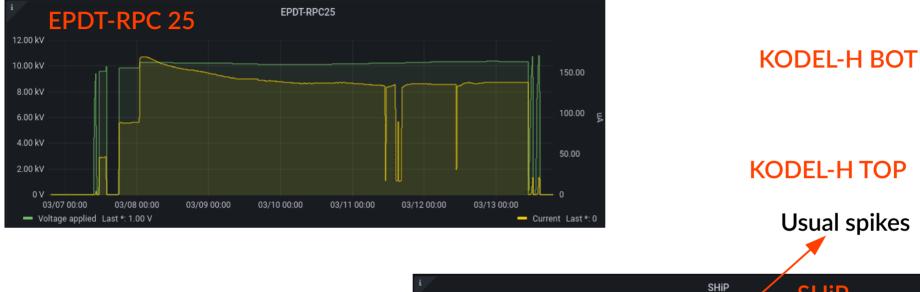
Stability

1) ID 205: http://webdcsecogas.cern.ch/index.php?mod=STABILITY_GIFPP&p=dqm&id=205 (started after reconnecting SHiP GND cable)

Source OFF

- 1) ID 723: http://webdcsecogas.cern.ch/index.php?mod=HVSCAN&p=dqm&id=723
- 2) ID 724: http://webdcsecogas.cern.ch/index.php?mod=HVSCAN&p=dqm&id=724

Stability results - 1

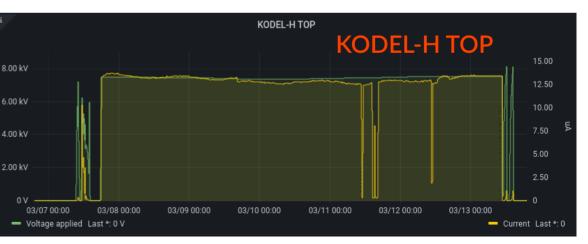




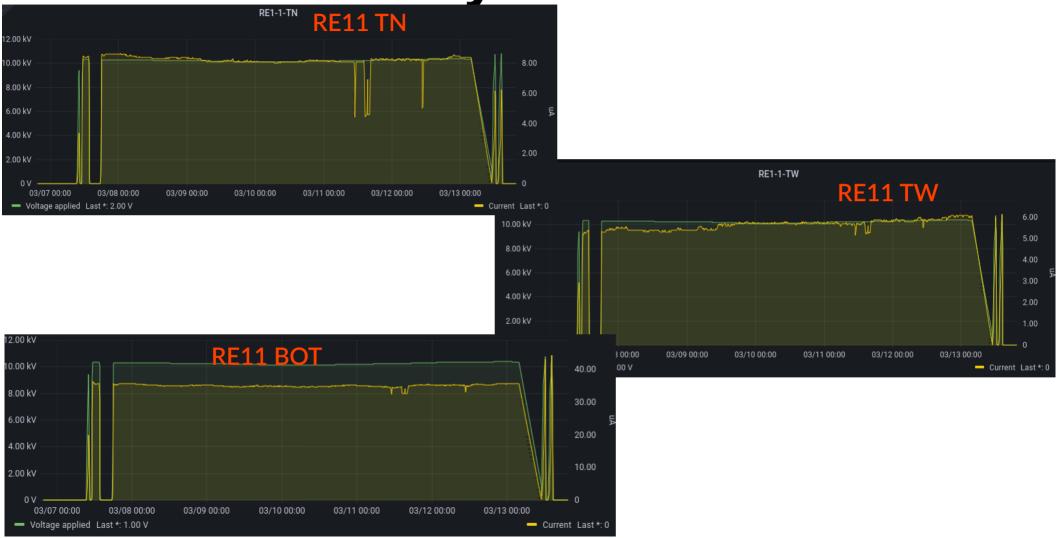


Stability results - 2



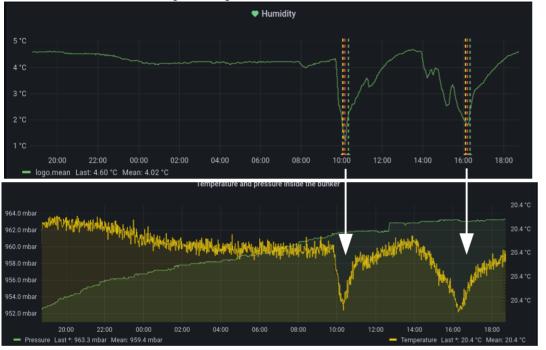


Stability results - 3



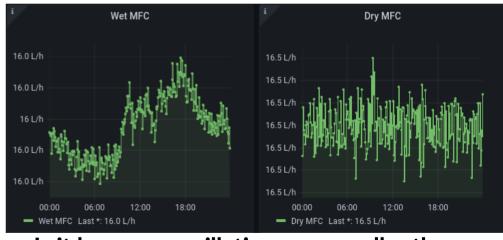
Outstanding issues

Sudden humidity drop



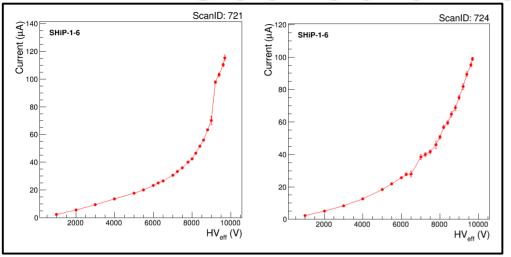
Seems to be related to temperature decrease (on y axis the value does not change, why?)

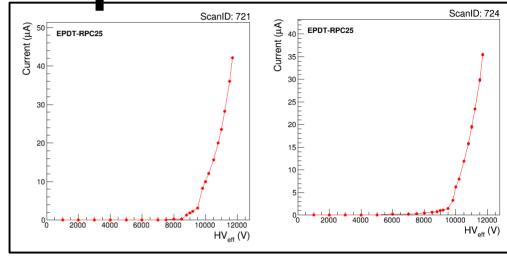
Y axis of wet/dry flowmeters seem to have fixed values at all time

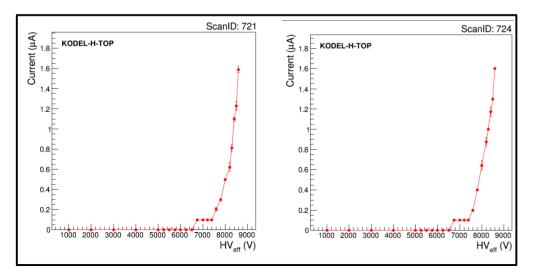


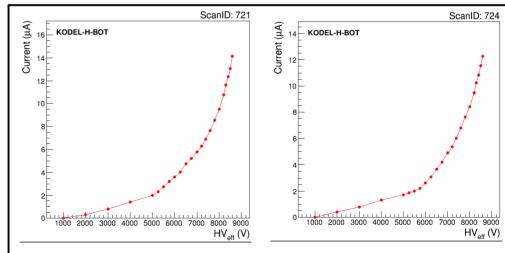
Is it because oscillations are smaller than a given value and it is not displayed in Grafana?

Source off comparison

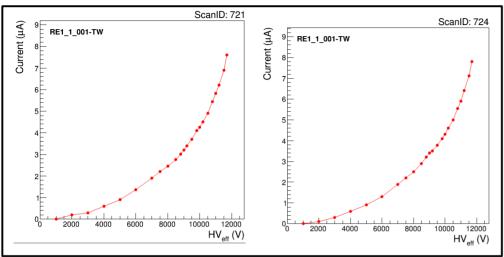


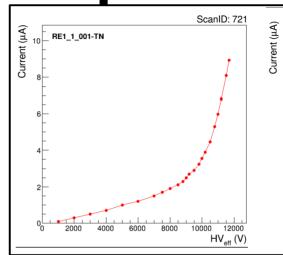


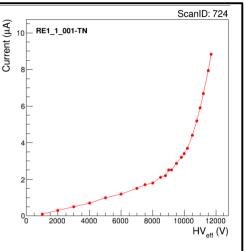


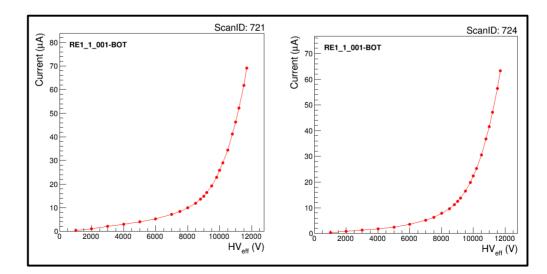


Source off comparison









April 2024 test beam

- April 2024 test beam confirmed in the slot 10th 24th April (included)
- Will be the first period of NA physics so there could be delays
- What is our plan? Who wants to participate?
- On the ALICE side we have few ideas (still to be discussed internally)
 - Aged RPC is currently in Torino for testing but we might bring it back to re-test with digitizer (to compare signal shape to before aging) and also with FEB to compare performance with July 2023 TB
 - Test brand new chamber (50x50 cm² prototype) to characterize with the beam and source
 - We would test one RPC first and then the other (swapping mechanical frame in between)

AGED RPC	Mixture	Source OFF	ABS 10	ABS 1	Total runs
	STD	2	2	2	18
	ECO2	2	2	2	
	ECO3	2	2	2	

NEW RPC	Mixture	Source OFF	ABS 10	ABS 1	Total runs
	STD	9	1	1	14
	ECO2	1	1	1	