## Report on ECOgas weekly shift (16<sup>th</sup>-22<sup>nd</sup> Oct 2024)

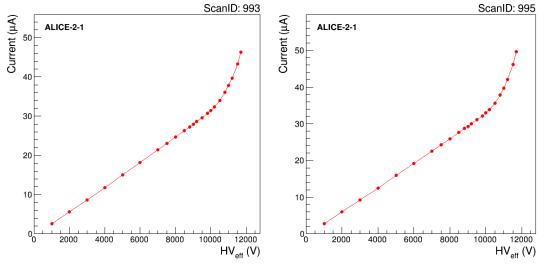
**Umesh INFN Bari** 

22/10/2024

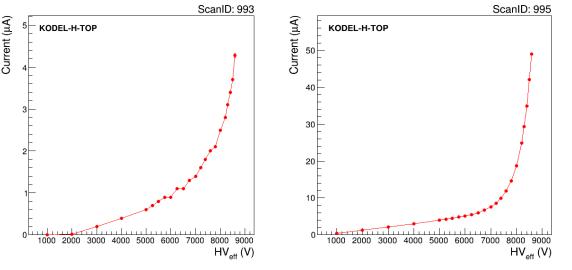
# System status:

- Weekly source off scans: **994 and 995**
- Stability run 227 running
- Kodel HV reduced from 7.7 kV to 5 kV (by Dayron)

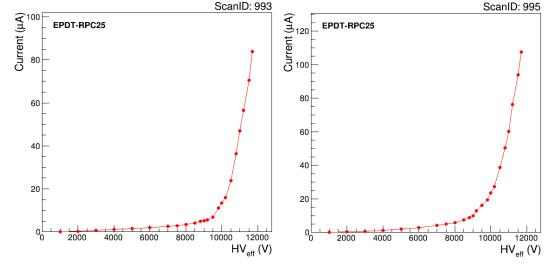
### Source off Comparison scan ID 993 (9th Oct) : 995 (16th Oct)



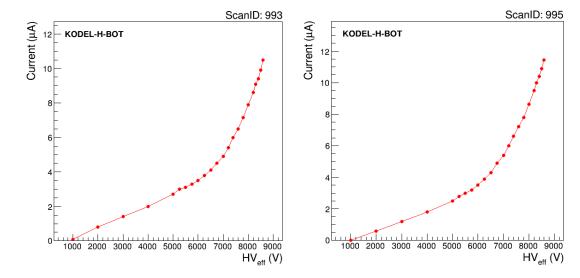
Alice RPC current increased from 49 uA to 51 uA



Drastic increase in current in the Kodel-H-Top, 4 uA 50 uA

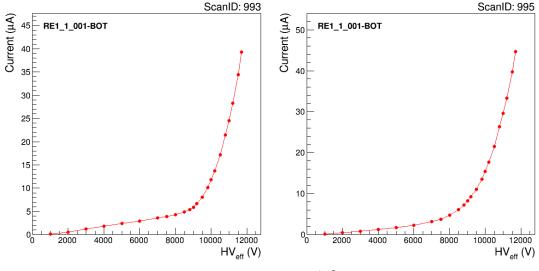


EPDT RPC current increased from 85 uA to 110 uA

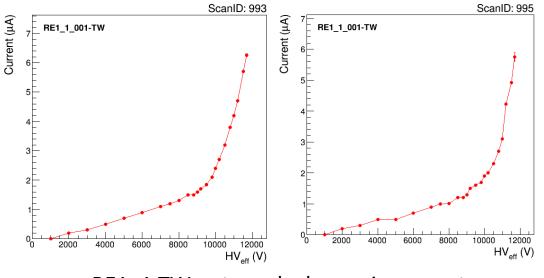


While in Kodel-H-Bot quite stable

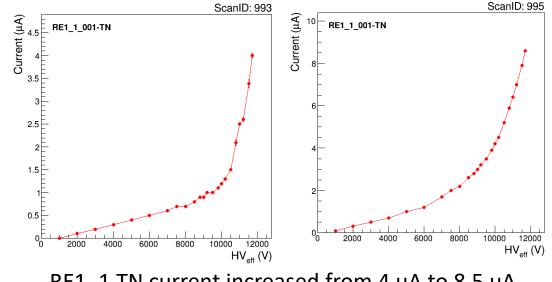
### Source off Comparison scan ID 993 (9th Oct) : 995 (16th Oct)



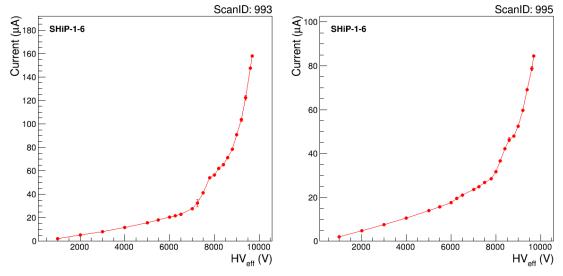
RE1\_1 BOT current increased from 40 uA to 46 uA



RE1\_1 TW not much change in current

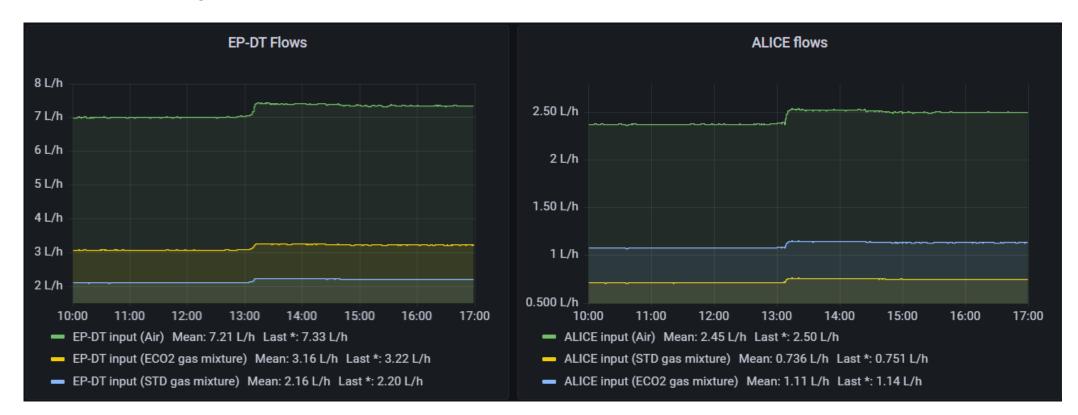


RE1\_1 TN current increased from 4 uA to 8.5 uA



SHiP Chamber current dropped from 160 uA to 85 uA

 Last Wednesday, October 16, 2024 (when the source was in off), around 1 p.m., some CMS personnel in the bunker moved/shifted trolleys (got this information from Dayron). At the same time, it was observed that there was a modest increase in gas flow in all of the chambers.

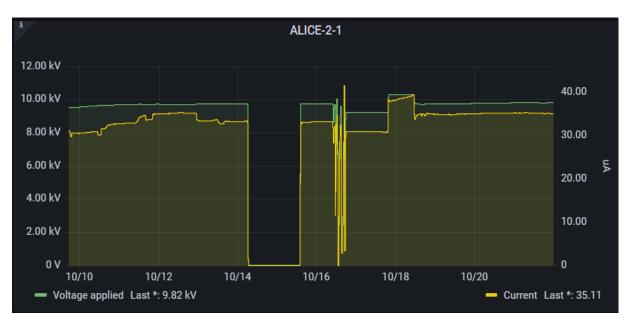


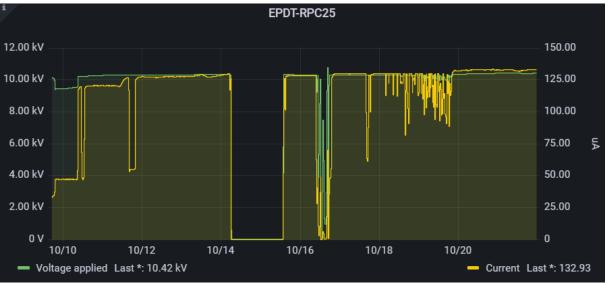
- At EPDT chamber flow increased from 7 L/h to 7.4 L/h
- At ALICE chamber flow increased from 2.37 L/h to 2.5 L/h



- At RE11 Top flow increased from 2.14 L/h to 2.28 L/h
- At RE11 Bot flow increased from 2.33 L/h to 2.46 L/h
- KODEL H flow increased from 8.74 L/h to 9.1 L/h
- SHiP chamber flow increased from 3.78 L/h to 4 L/h

## Stability Run 227 overview



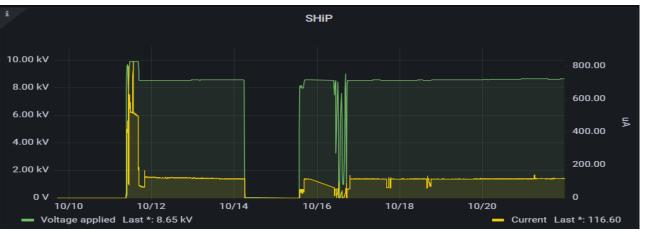


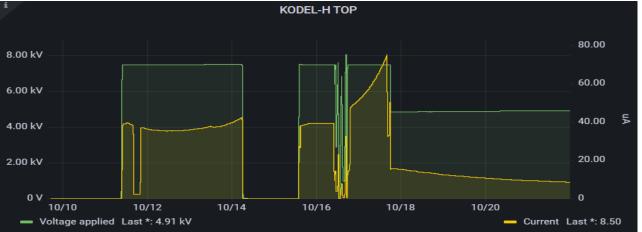
#### ALICE-2-1 RPC

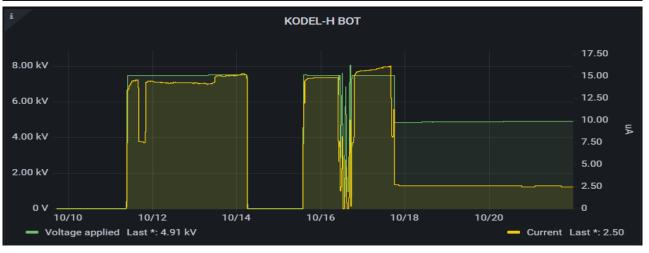
- Last Thursday evening Luca increased HV to 10.6 kV, current drift was observed and reduced HV to 10 kV
- Current: 35 uA @ 10 kV

#### EPDT-RPC 25

- HV: 10.6 kV
- Current: 133 uA







#### SHIP RPC

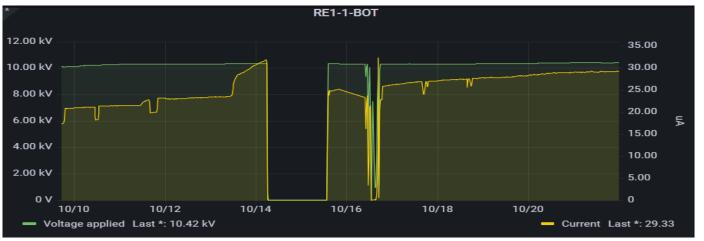
HV: 8.8 kV Current: 115 uA

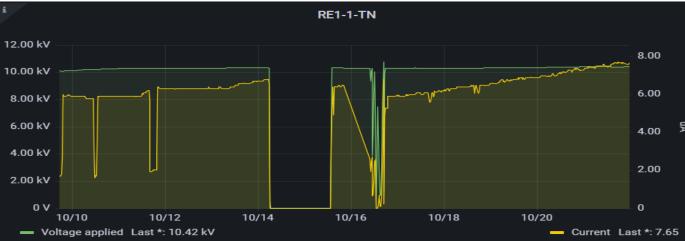
#### KODEL-H TOP

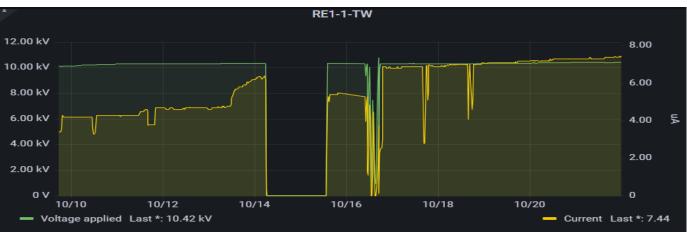
HV reduced from 7.7 kV 5 kV Current: ~ 8 uA

#### KODEL-H BOT

HV reduced from 7.7 kV to 5 kV Current: 2.6 uA







#### <u>RE1-1 BOT</u>

HV: 10.6 kV Current: 26 to 29 uA

#### <u>RE1-1 TN</u>

HV: 10.6 kV Current: 5.9 uA to 7.6 uA

#### <u>RE1-1 TW</u>

HV: 10.6 kV Current: 10.4 uA

# Conclusions:

- ALICE chamber dark current slightly increased in Source OFF HV scan.
- EPDT chamber dark current increased from 85 to 110 uA.
- SHiP chamber current dropped from 160 uA to 85 uA from last week's source off scan, current in stability scan 115 uA.
- RE1-1 TN RPC current increased slightly both in stability scan and source off HV scan.
- RE1-1 BOT RPC current slightly increased in stability scan.
- There was a increase in flow observed in all chambers on 16/10/2024 around 13:15 hrs.