

2x2 Demonstrator Operations Status

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PMG Meeting
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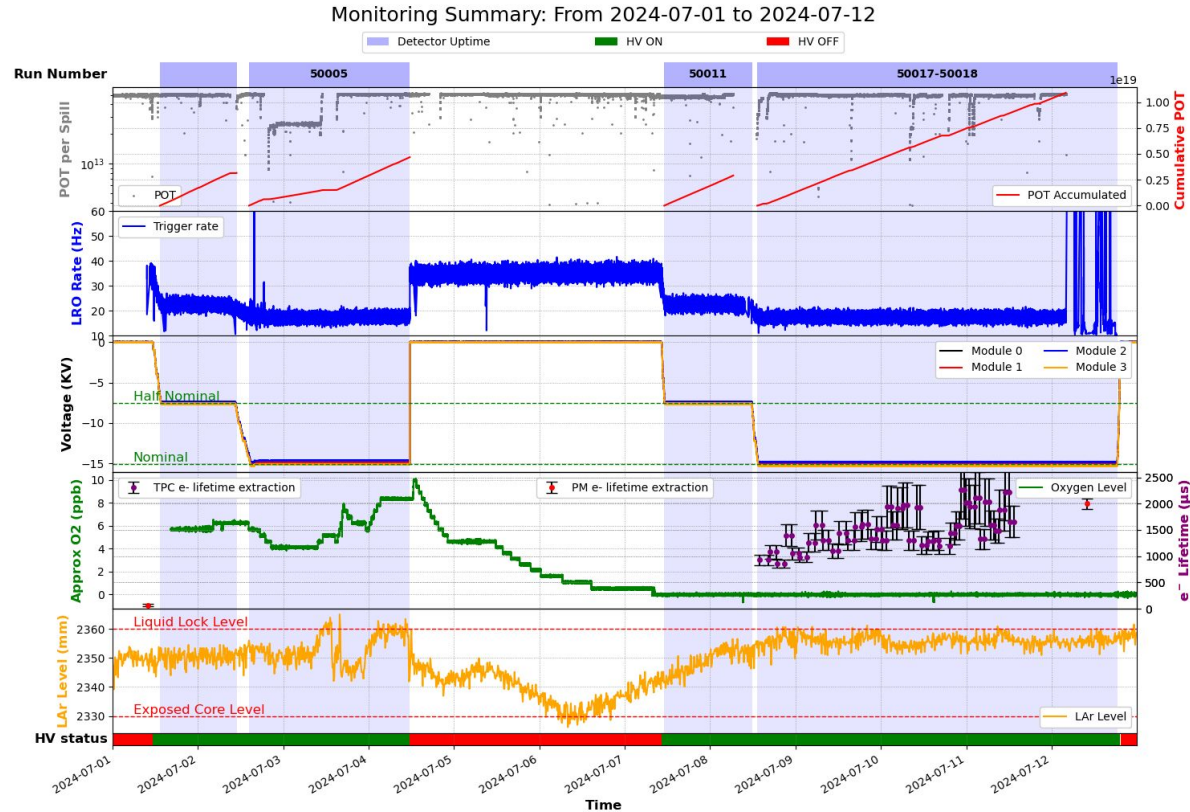


2x2 Status

The 2x2 took 5 days of high-purity, nominal-HV data (about $1e19$ POT) before the summer shutdown

Due to leaks in the cryostat, it was challenging to keep the LAr level within operational range and maintain LAr purity at the same time.

The focus during the shutdown has been improving the cryogenics system.

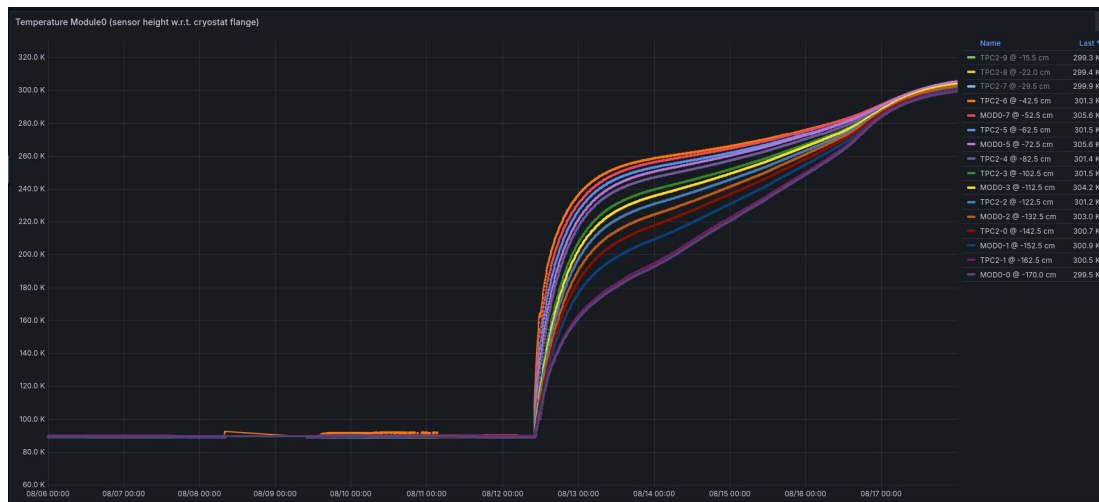


Summer shutdown plans

HV was ramp down on July 12. Draining began August 6th, and reached room temperature on the 17th.

The electronics were disconnect from the cryostat around this time.

A taskforce was formed to evaluate possible modifications of the cryogenics systems.

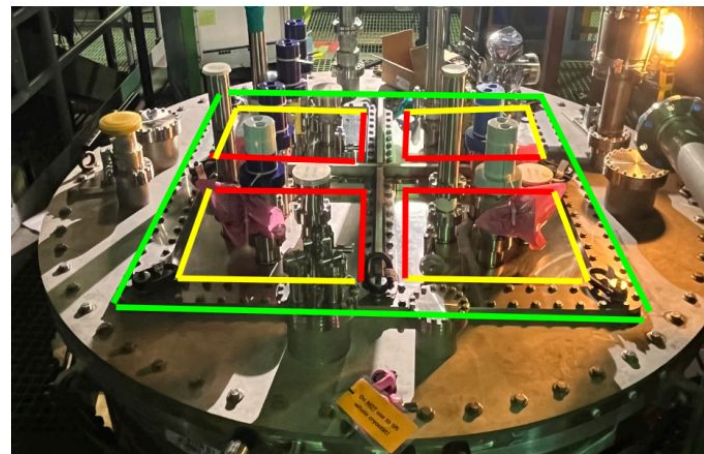


Module0 temperature sensors during cooldown period

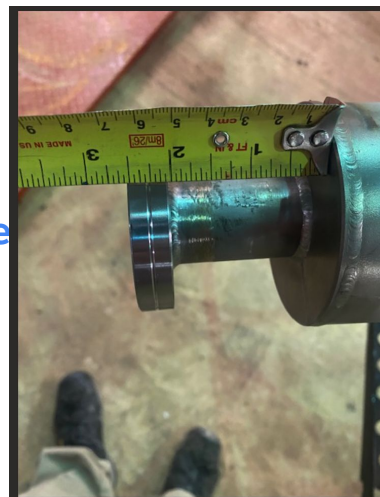
Summer Modifications

- Address the leak of the Indium seal
 - Investigating adding a layer of epoxy
 - Currently finalizing procedure after test at Bern and LBNL
- Raising the condenser intake line ✓
 - It was raised by 60 mm
- Other items:
 - Coldhead send back to cryomech for repair ✓
 - Filter media replacement ✓
 - Gas analysers modified to test gAr dewars ✓

Applying the epoxy and filling with LAr is estimated to take a month total.



Top: Leak location. Bottom: condenser intake



Other Work

- Analysis team is working on understanding low-level data features
- Swapped faulty FEBs on the MINERvA modules
- Slow control software migration to EPICS
- Light system channel mapping validations
- Improvement on run's databases