

260-L LAr System Progress Report

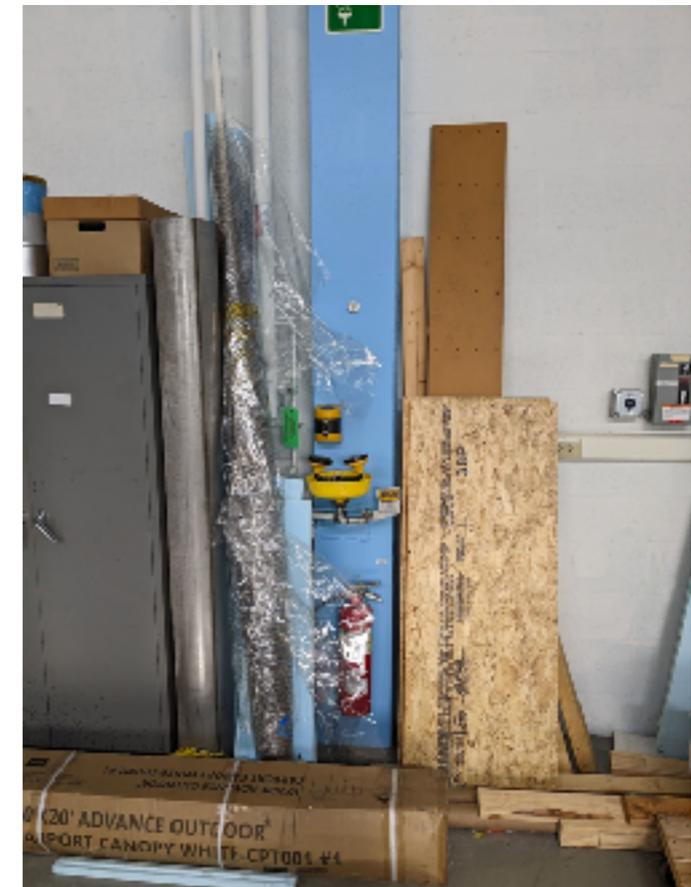
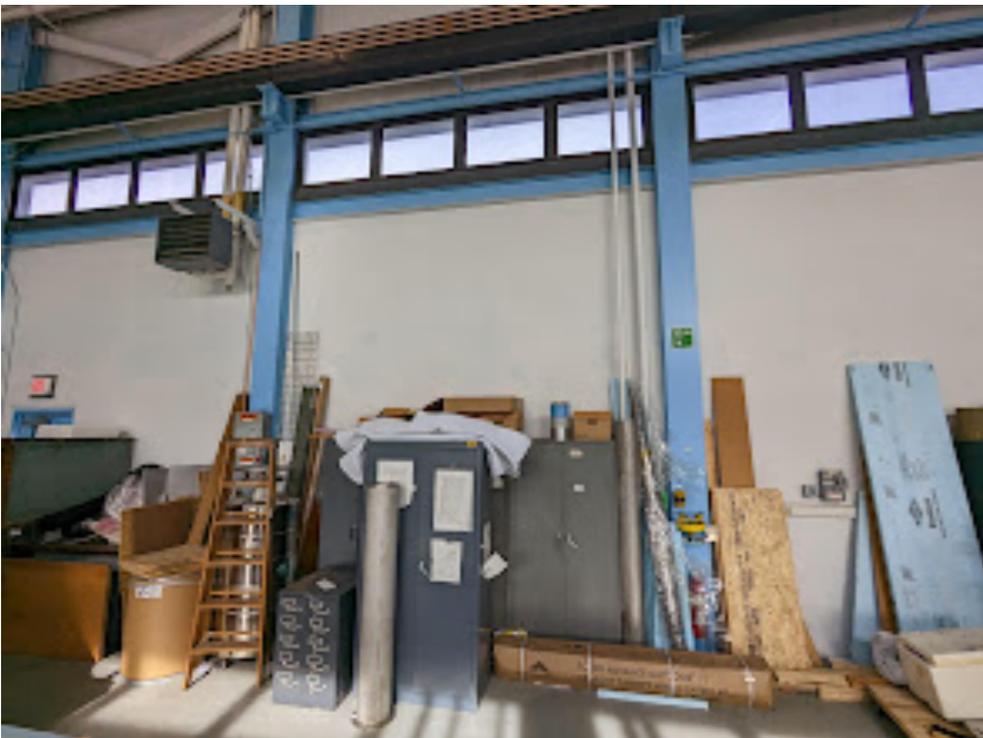
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2/7/23



Lab Safety and Space Management

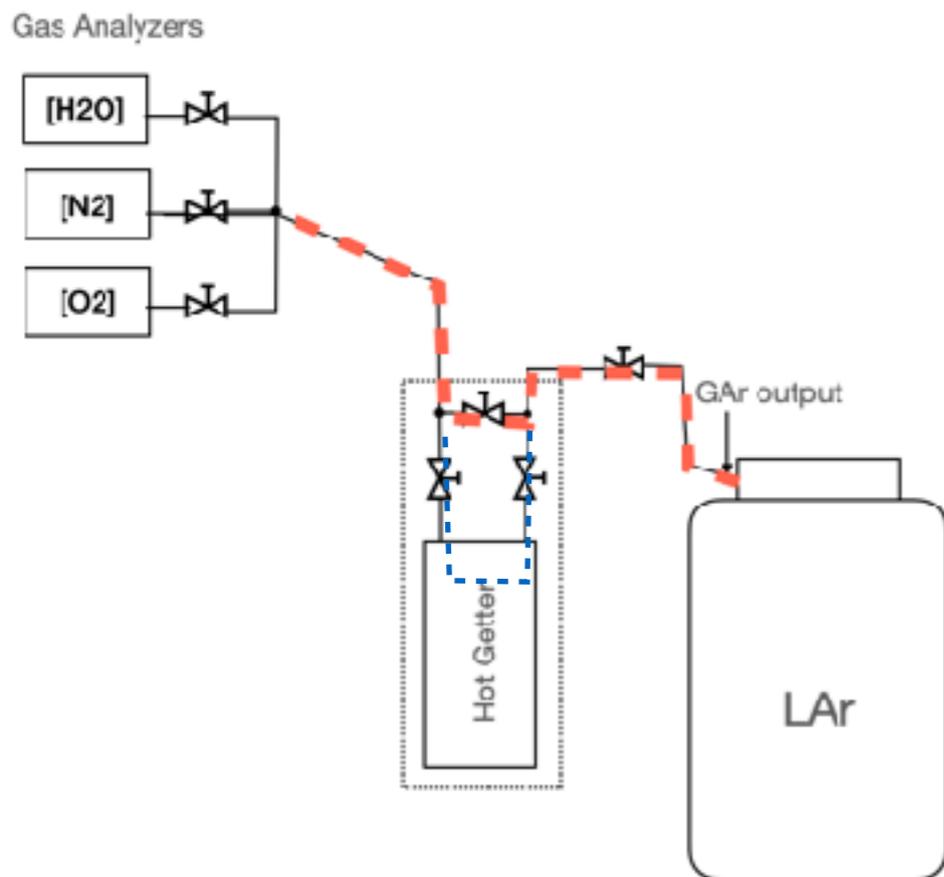
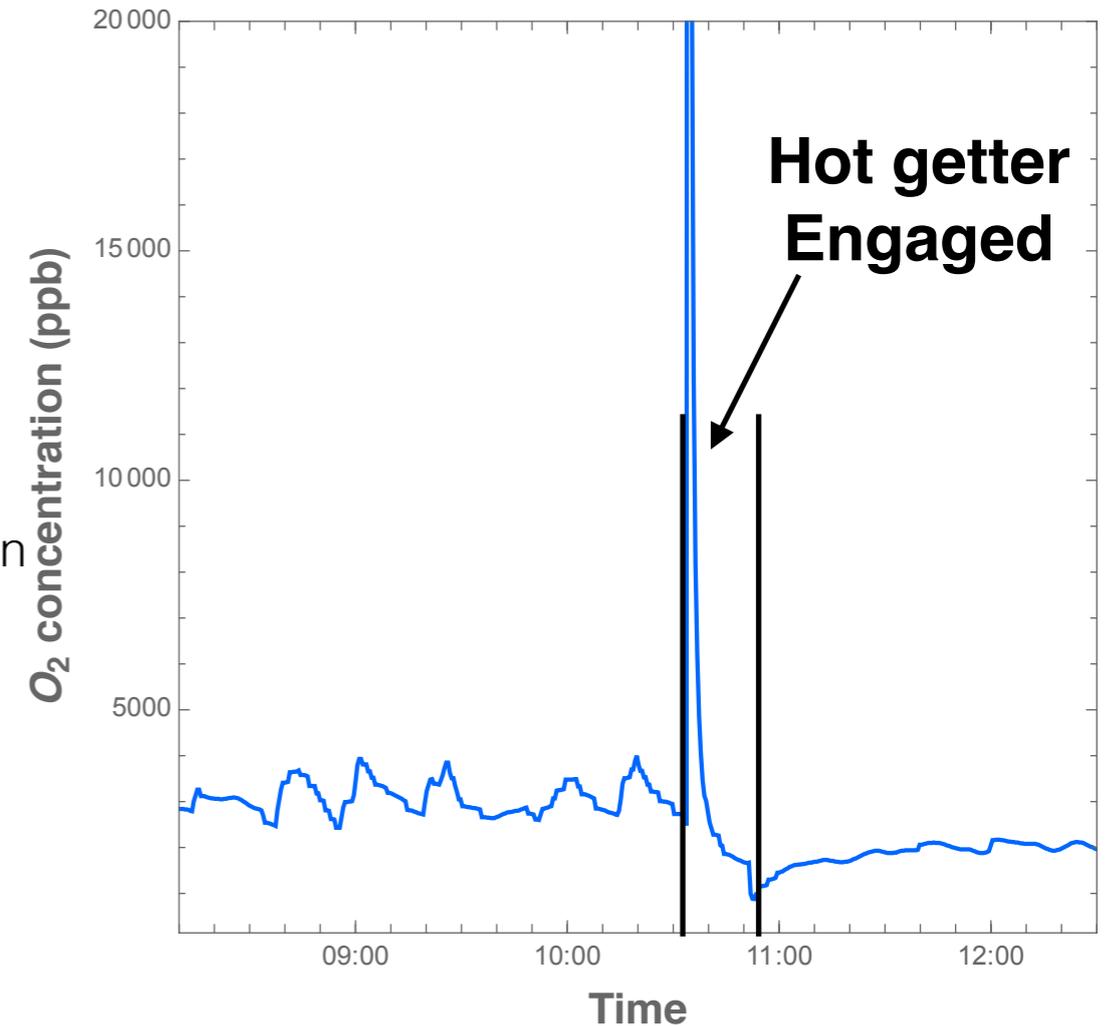
- COVID level in Suffolk County is in MEDIUM now
- Face masks are optional onsite at BNL
- LN2 buggy removing PO still pending
- ESH safety workthru on the 1st FL last Wednesday
 - Focus on housing keeping, a note was sent out to the department after the walkthru
 - No complaint to the LAr lab area
 - Some concerns raised for the house keeping of the cold electronics testing area



Analyzer reading validation test

Hot Getter engaged for validation

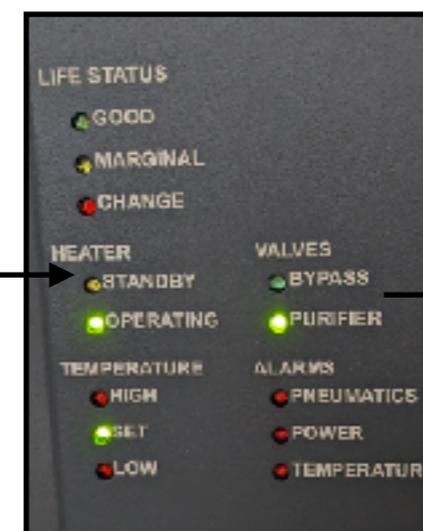
- GAr from boiling off LAr reduced to ~3ppm[O₂]
- Tried to engage hotter getter
 - [O₂] reduced significantly during warming up
 - Dived when getter at the temperature
 - Getter overheated soon after at temperature, the protection mechanism engaged
- Troubleshooting the hot getter now



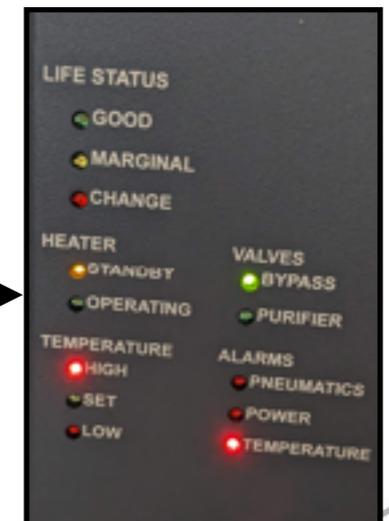
Warming up



At temperature



Overheated



Burst disk vendor visitor

► **Vendor representative from Pro-Quip Inc. visit LAr lab for product discussion**

- The burst disks are made from sheet metal with a wide pressure range
- Housing assembly can be customized for application purpose
- Inquired for the items below, waiting the quote

- Burst disk assembly

1/2" VCR—burst disk 100 Psig—1/2" Female NPT (for relief valve)

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1/2" Swagelok—burst disk 70 Psig—1/2" Female NPT (for relief valve)

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- Relief valves:

1/2" 50 psig to fit in the Female NPT burst disk assemblies

- Burst disk for the main dewar:

Low pressure burst disk for main dewar with 1.33 conflat flange 15 psig, (MDC product backordered)



Parts Procurement

▶ **Vacuum pump procurement**

- All the signatures collected
- Waiting for being pinned to the procurement for dispatch

▶ **Gas analyzer supplies**

- O₂ analyzer replenishment solution (Potassium Hydroxide) for the chemical readout cell quote received, PO in progress
- H₂O analyzer replacement quote received, ordering on CC

▶ **Liquid/Gas supplies**

- Activation gas ordered: UHP Ar and Ar+3%H₂ mixture
- LAr refill ordered

▶ **Leak detector**

- Getting quote from vendors

▶ **LAr heater**

- No updates from the vendor, following up with the tech sale in contact