

LAr R&D Progress Report

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2/27/24

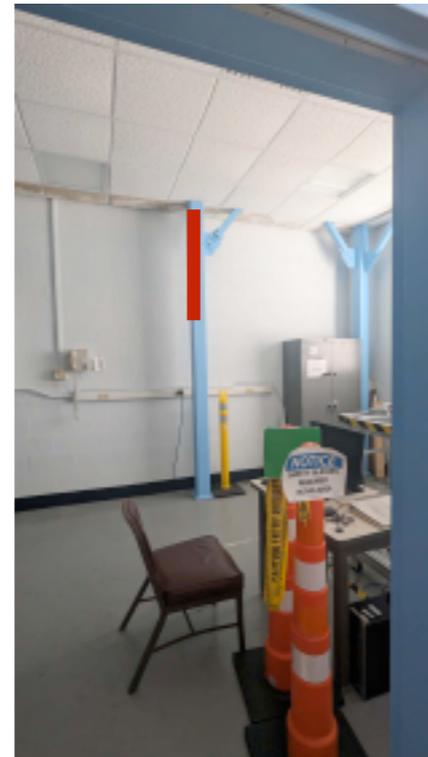


Lab Safety and Space Management

- **LN2 bulk delivery to the 6000-gallon tank**
 - Delivery of 4000 gallon LN2 ordered and confirmed with Airgas
 - The delivery is scheduled within 48 hrs
 - North parking lot next to highbay will be evacuated once delivery time confirmed
- **Highbay ceiling lights**
 - About half of the newly replaced LED lights are out
 - Reported to the building manager for repair
- **ECP arrangement for EDG group**
 - I am assigned as the ECP for the EDG group
 - Experiment setup specific ECPs assigned for each individual experiment:
 - LAr test stand (highbay): Yichen
 - DUNE Robotic Test Stand (highbay): Volodya
 - DUNE coldbox (highbay): Shanshan
 - DUNE chip/board testing (1-86, 1-216): Shanshan and Lingyun
 - WbLS (2-224): Guang
 - other (2-233): Volodya

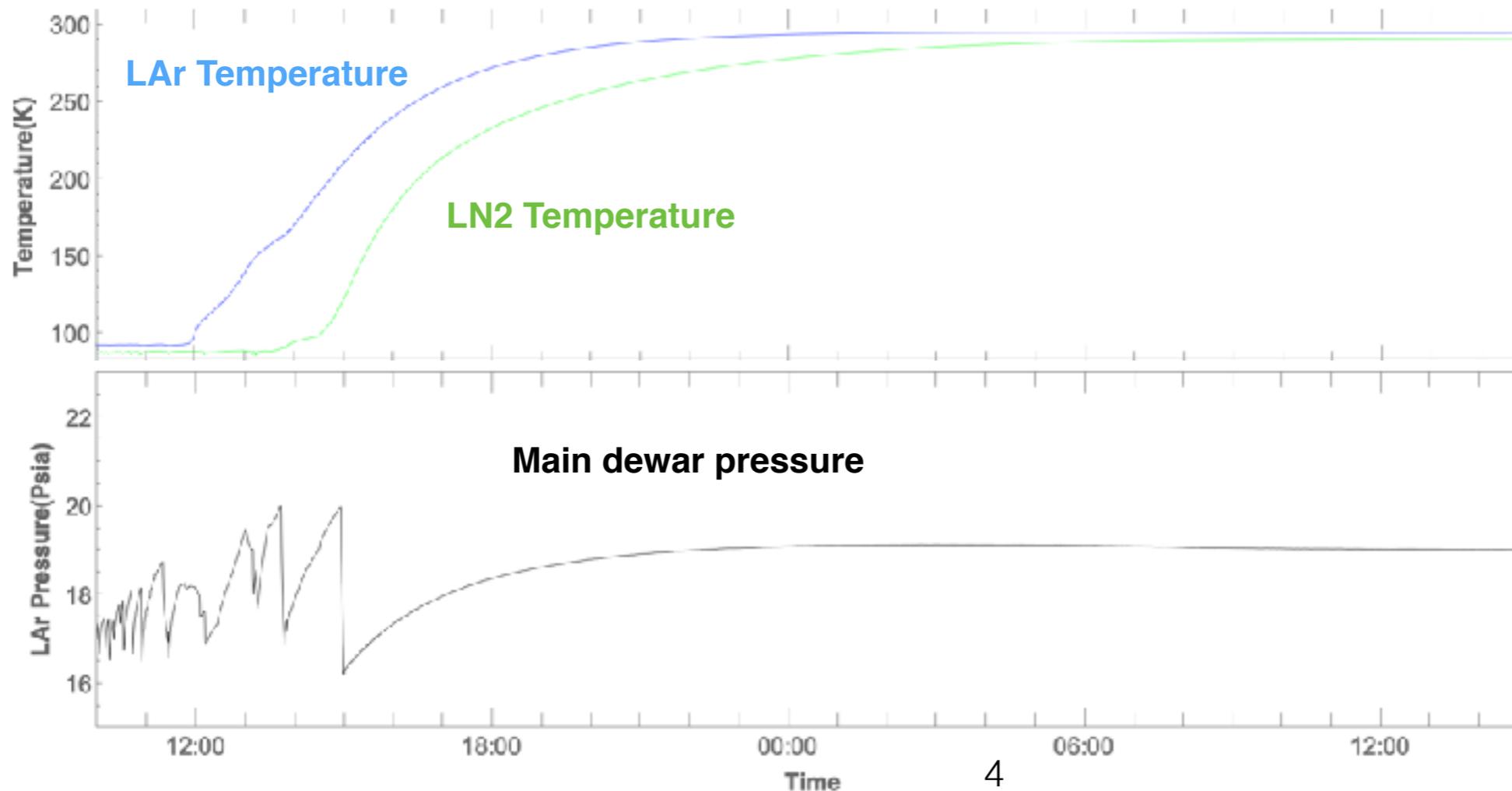
Lab Safety and Space Management

- Technifab site survey for LN2 plumbing construction
 - One cryogenic engineer from Technifab came for the site survey
 - Mike Gaffney attended the survey
 - We went up to the roof of the corner room
- Revised plumbing arrangement
 - The plumbing enters the building through the window, **no drilling** on the wall needed
 - The plumbing is arranged on the roof of the corner room with space next to the HVAC
 - The plumbing entering the corner room through the ceiling for the Robotic testing station
 - Another branch dropped from the roof for LAr applications
 - One spare connection reserved for future expansion
- Engineering drawing is expected in ~ 1 month for lab review



260L System Status

- 260 L system warm-up
 - The system was warmed up last Friday
 - A small amount of LAr drained from the main dewar
 - The full warm-up took less than 24 hours
 - Auto pressure relief works well



260L System Status

- Top flange assembly movement
 - Top flange assembly was moved to the assembly frame using the crane
 - The lifting operation is very smooth
 - No more dark powders were observed in the main dewar, the particular filter works
 - Replacing the press-diff level gauge, validate the performance of the sensors, cleaning up the inner surfaces
 - Going to put the top flange assembly back to the main dewar this week



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