

260-L LAr System Progress Report

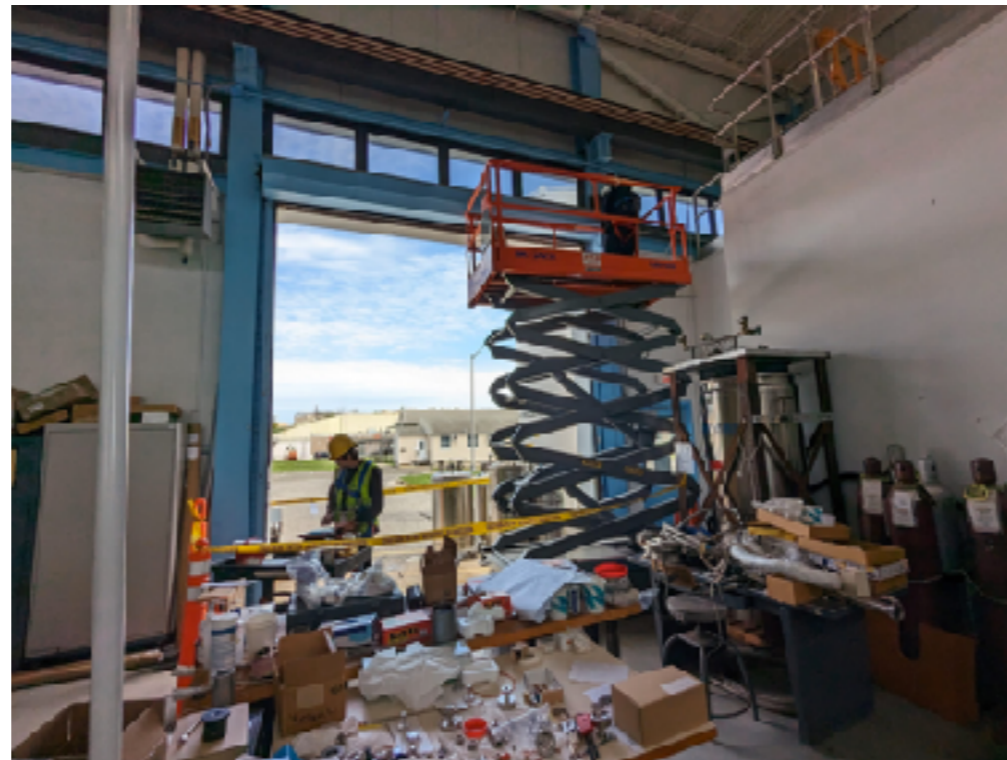
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Lab Safety and Space Management

- COVID level in Suffolk County is in LOW
- Face masks are optional onsite at BNL
- Highbay rolling gates maintenance
 - Conducted by technicians from outside vendors
 - The banging noise when opening the gate was fixed
 - The recommendation by the vendor is to replace both gates in highbay



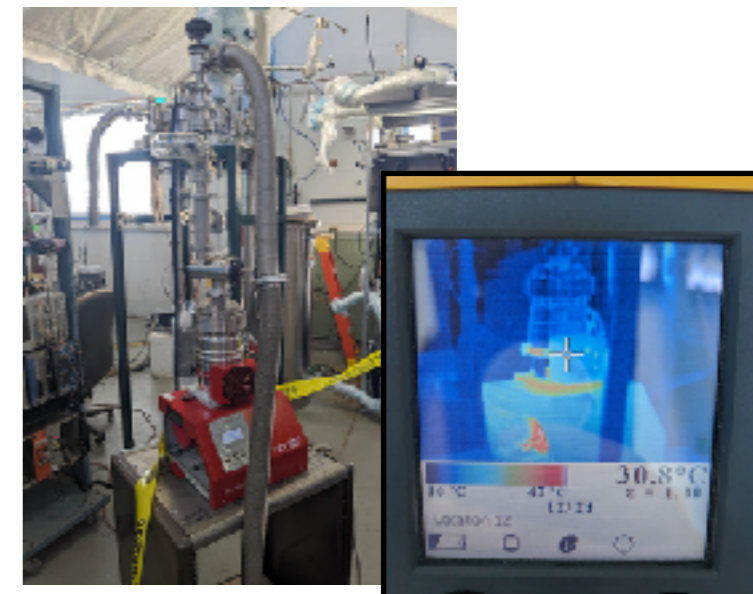
Xenon gas purity analysis for PIONEER

- Leak check was completed, one of the best leak tightness observed to $\sim 3.0 \times 10^{-10}$ mbar-l/s achieved
- The area barricaded with clear labels and warnings signs
- Baking System
 - The sample cylinder and upstream tubings was wrapped with heating tape with temperature control with thermocouple feedback on the sample cylinder using the inline filter activation controller
 - All baking area wrapped with multi-layer Aluminum foil
 - Run table fans at the outlet valve of Xenon cylinder to avoid heating the Xenon storage volume



Xenon gas purity analysis for PIONEER

- System baking under vacuum
 - The system was baked overnight at 100C first
 - Increased to 150C until now
 - Will finish baking and charge the sample cylinder tomorrow
- New vacuum pump performance
 - The new pump has been running at full speed for about a week
 - Stable long-term performance verified
 - Very quiet compared to the old pump station



260-L System 2nd purity run plan

- Drafted a detailed run plan for the following weeks for the 2nd purity run
 - The plan starts for next week after the completion of the current Xenon extraction test
 - https://docs.google.com/document/d/14GnwKKO2w51nc-pjVz_HpPn-AMeLpFyGILf3rRBCh5U/edit?usp=sharing
 - Still revising the details
- Shopping list started for LAr R&D purchases
 - <https://docs.google.com/spreadsheets/d/1-YX3etVlXnFmyvUY8N0l1J3vFYkHnpoA9hNqcBXclyk/edit?usp=sharing>
 - Keep updating the items on the list
 - Cart for new leak detector ordered
 - A couple of vacuum and fittings put on CC
 - Still waiting for quote for UHP burst disk and heater