

# LAr R&D Progress Report

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# Lab Safety and Space Management

- ECP Monthly meeting

- ECP monthly safety meeting was held last Friday
- Went over the electrical safety documents and capacitance calculation documents
- Documents available at: [https://brookhavenlab.sharepoint.com/:f:/s/Physics\\_ECP385/EjD6e40OmWIFvTV4zIU8z-ABFyKuaD7Bd8zxMIZ2O0wmnQ?e=T0f1fZ](https://brookhavenlab.sharepoint.com/:f:/s/Physics_ECP385/EjD6e40OmWIFvTV4zIU8z-ABFyKuaD7Bd8zxMIZ2O0wmnQ?e=T0f1fZ)

- LN2 tank VJ plumbing

- The engineering drawing is expected soon

- Remove of old leak detector

- The work order has been in since last June
- Contacting Tom to arrange for the removal to make more lab space



# 260L System Status

## ▶ **Inline Filter Activation**

- Activation completed in about 12 hours
- No excess water generation observed
- Inline filter controller moved to the 260 L system for the on-system filter activation



# 260L System Status

## ► On-system Filter Activation

- Some water condensation observed on the venting tube
- The on-system filter has significant consumption
- Activation completed in ~24 hours
- The inline filter cart set up for filling



# 260L System Status

## ▸ Plumbing for the next fill

- New particulate filter installed on the fill line at the downstream of inline filter
- Currently leak checking for the particulate filter
- Reconnecting the slow control sensors and test slow monitoring program
- LAr order was dispatched today
- Filling is planned as soon as the LAr is delivered



# 260L System Status

## ► **Plan for the next fill**

- **Day 0 (Before LAr)**

- PrM test in vacuum
- Pump-and-Purge the main dewar
- PrM test in gas phase

- **Day 1 (LAr delivery date)**

- Plumbing in the LAr supply dewar
- Start filling into the main dewar to ~20" with PrM fully immersed in LAr following the SOP
- Maintain the stable cryogenic operation of the system

- **Day 2-Day 7**

- Run PrM in LAr phase twice a day to check the electron lifetime