

Liquid Nitrogen Dewar Fill Station Procedure

CAUTION: Extremely low temperatures. Beware of potential cryogenic spray from residual pressure in transfer lines. Cryogen liquids can freeze skin resulting in burns (frostbite). Cold metal parts can also freeze tissue.

Training: Authorized persons must first complete EHS0170 “Cryogen Safety.”

Personal Protective Equipment: Cryogen Gloves, Safety Glasses, Faceshield, Lab Coat or Long Sleeve Shirt, Long Pants, and Closed-Toe Shoes required when connecting or disconnecting LN2 transfer lines.

1. Position the Dewar in a numbered stall and secure in place with restraint chains.
2. Inspect the Dewar, fill station hoses, and fittings for any damage or defects. Ensure that there are no personnel working beneath the fill station.
3. Don required personal protective equipment.
4. Vent the Dewar so that the residual pressure is less than 22 psi.
5. Connect the system hoses. Connect the system LN2 vent hose to the Dewar vent connection. Connect the system LN2 fill line to the Dewar liquid connection. The fittings should be hand tight.
6. Open the Dewar “vent” and “liquid” valves.
7. Select the green “start” button on the fill station control panel to begin filling. Select only the “start” button for the number stall being used.
8. Once the Dewar is full, the system will shut-off automatically. To stop filling or in the event of an emergency, activate the red “stop” button located on the fill station control panel.
9. Close the Dewar “liquid” and “vent” valves.
10. Carefully disconnect the system fill and vent hoses from the Dewar. Slowly crack the fittings open to release any residual pressure. Be alert to any potential cryogenic spray.

Report all damaged or missing equipment immediately to the Building Manager for corrective action.