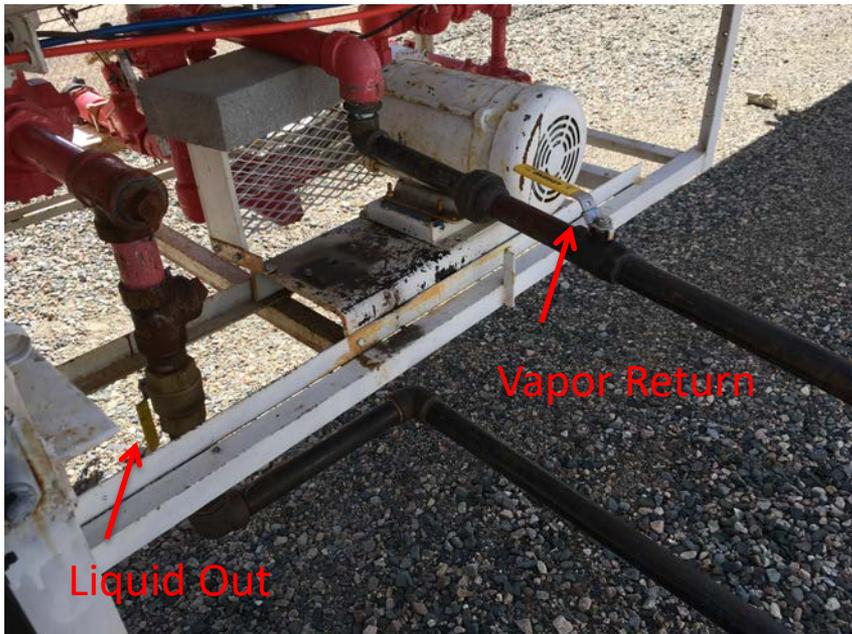


SPRUCE Emergency Propane and CO2 Shutoff Procedures



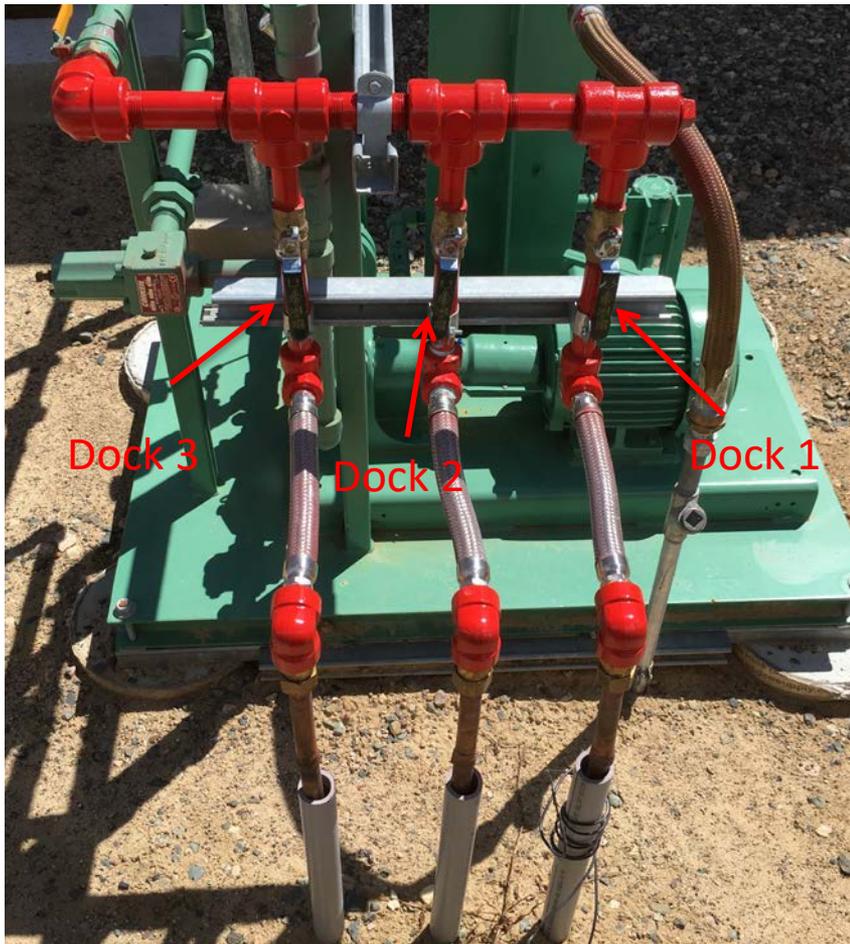
RSS 7728-Propane Shut Down Info
(updated 03-2018)

LP Liquid Out and Vapor Return Valves



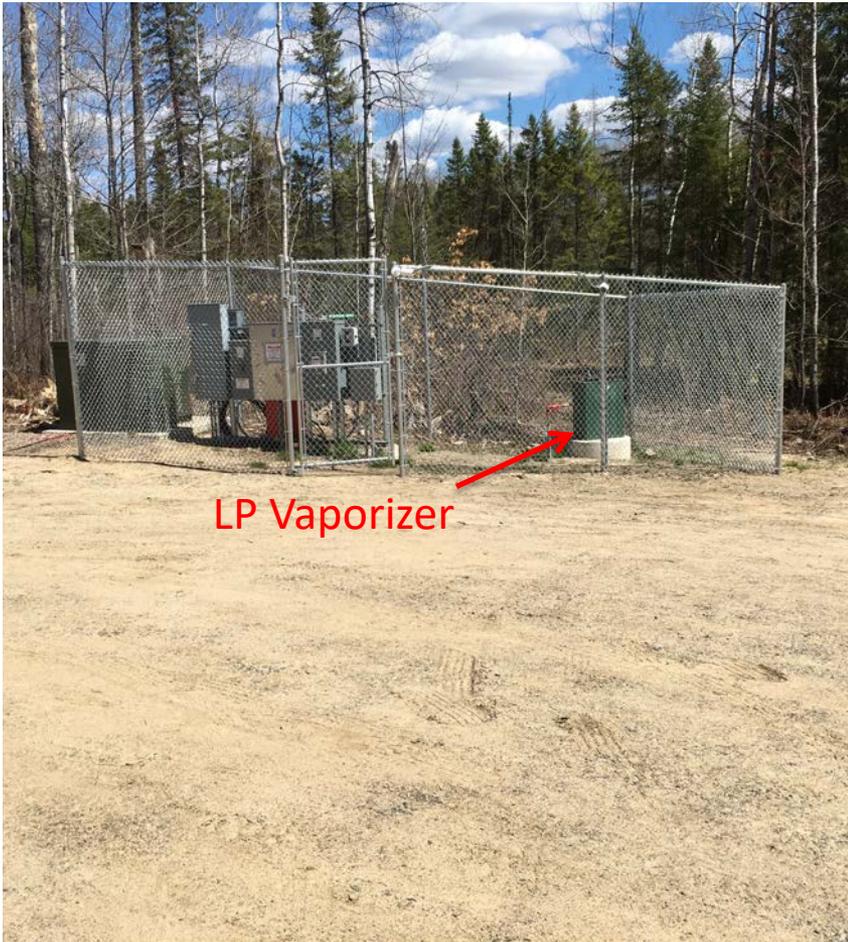
- Closing Liquid Out valve will stop all flow of LPG to system isolating at tank.
- Leaving vapor return open will allow trapped gas to bleed back into tank
- Closing both valves will completely isolate the tank from the LPG process system

LP Dock Distribution Manifold



- This is the desired location to stop propane flow to the affected dock in the event of an emergency!
- Each Dock can be isolated independently
- Valves left to right are docks 3, 2, 1

LP Vaporizer Enclosure



- Each Dock has an LP vaporizer that feeds it.
- Vaporizers are located in fenced enclosures with Main Electrical Panels at the head of each dock.

LP Vaporizer Shut Off Valves



MAU LP Shut Off Valves

- Each MAU has a unique shutoff valve before the regulator
- This would be the correct valve for isolating a single unit for maintenance.



RSS 7726-Propane Shut Down Info
(updated 03-2018)

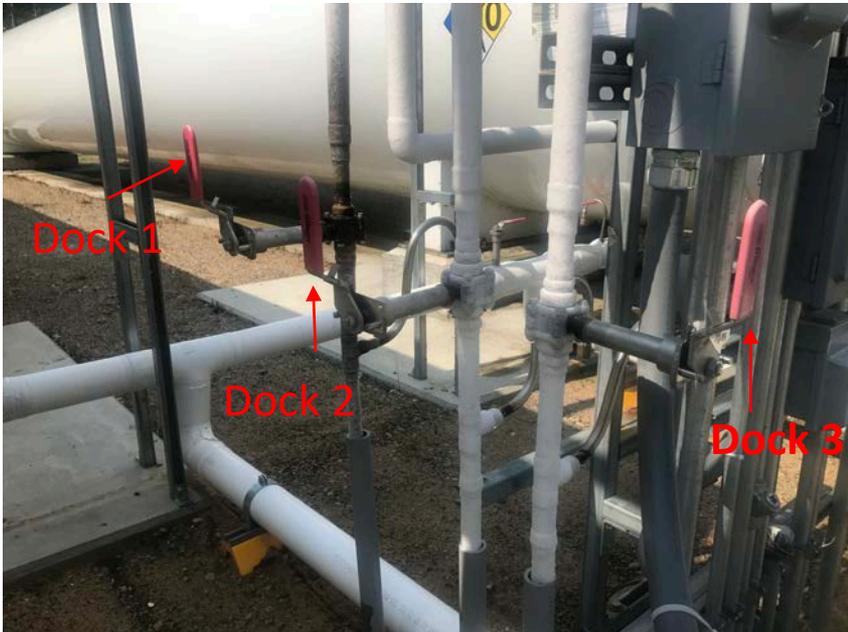
CO2 Shut Off

- The main vapor process valve at right will stop CO2 flow to the entire system.
- Close valve by slowly turning handle 90 degrees to stop.
- Place Administrative Control Tag on handle and notify site management personnel of emergency.



CO2 Shut Off

This is the desired location to Stop CO2 Flow to the affected dock in the event of an emergency!



- The manifold valves featured at left can be used to shut down CO2 flow to each of the docks individually if an emergency affects only one dock.
- Lift the gate latch on the handle and slowly turn the handle 90 degrees to the stop.
- Place an administrative hold tag on the handle and inform site management personnel of the emergency

CO2 Shut Off

- The last remaining location to stop CO2 flow to a plot is a gate valve located in the CO2 vaporization cabinet.
- Stopping CO2 flow at this location will only affect the corresponding plot.
- Turn knob counterclockwise until it stops and place administrative control tag on system. Notify site management personnel of the emergency.

