

A slight positive pressure will be maintained in the CKOV. When the atmospheric pressure falls, valve A closes and valve B opens allowing C4F10 to exit. When atmospheric pressure rises, valve B closes and valve A opens allowing the mass flowmeter to supply gas to the ckov. Typically, the mass flow meter would supply a small flow to keep the CKOV at a positive pressure to keep atmospheric contaminants out. The bubbler at the top protects the vessel in case of some sort of system failure. A differential pressure transducer measures the weight of the column of C4F10. Another differential pressure transducer measures the difference in pressure between the top of the vessel and the atmosphere. Gas is filtered for H2O. A set of manual flow meters can be used for the filling of the vessel. A common storm can drop the atmosphere at a rate of 0.75" Hg per hour while a 100 year storm can drop it at a rate of 2.5" Hg per hour. So we have to make sure we can get the corresponding flows of 1385 to 4367 scfm out. We need to decide what pressure it is safe for the CKOV to operation at.

