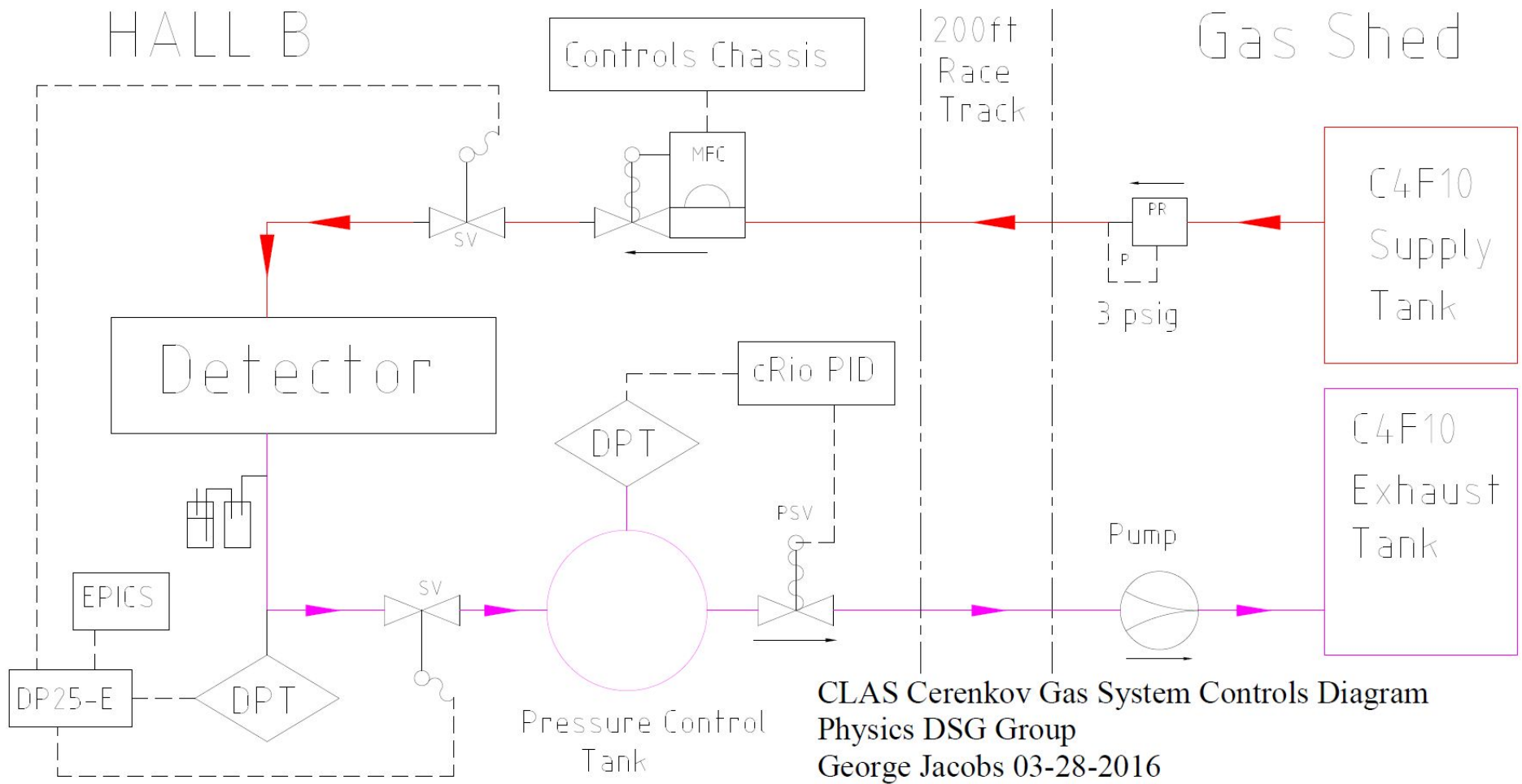


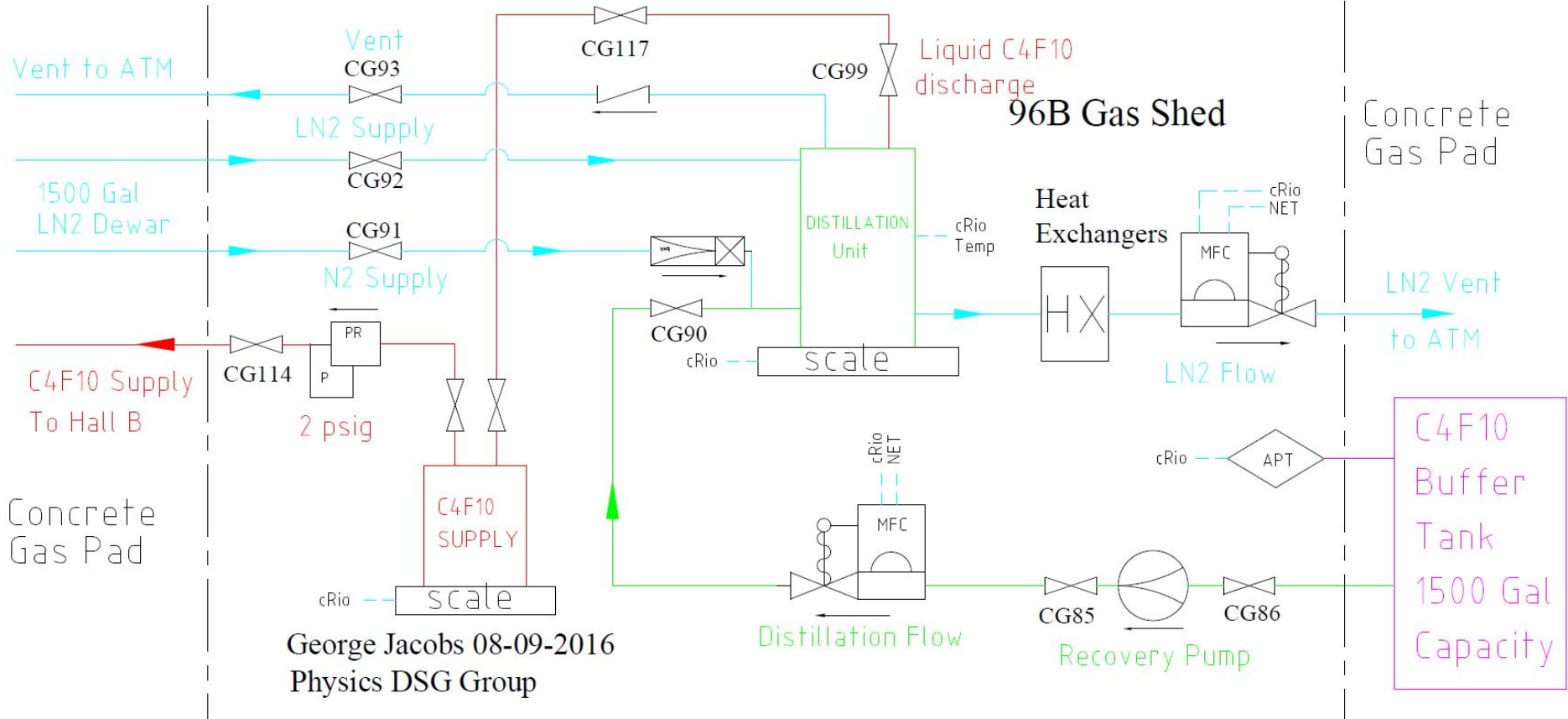
# The C<sub>4</sub>F<sub>10</sub> Distillation Recovery process for the LTCC

George Jacobs

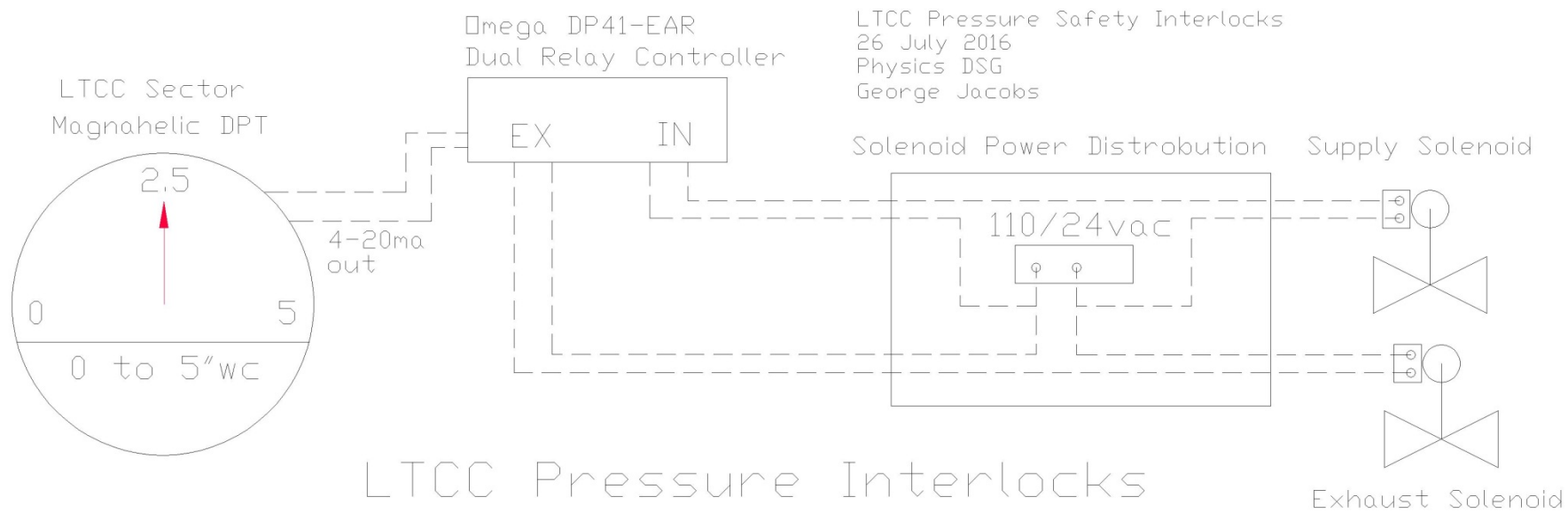
02/14/2018



# LTCC C4F10 Distillation System



George Jacobs 08-09-2016  
Physics DSG Group



Advantages of the Distillation Recovery Process;

Recovers gas that would be lost due to ambient pressure changes.

Recovers gas from a detector prior to maintenance.

Maintains detector pressure with a relatively tight band.

Disadvantages of the Distillation recovery Method;

Complex and expensive equipment overhead required.

Manual startup and shutdown process by trained and qualified operator.

Requires 40-60 man hours per month to operate.

### Advantages of the Current Operational Setup

- The Distillation System is not required.
- Does not require 40-60 man hours per month to operate.
- Minimal equipment overhead.

### Disadvantages of the Current Operational Setup

- Significant Gas Loss due to ambient pressure changes.
- Large detector pressure fluctuations due to ambient pressure changes.
- Detector gas volume may not be recoverable prior to maintenance.