



Factors In Compression Station Design
April 5 - 7, 2022
LJA – Houston, TX
Agenda

Day 1

- 7:15 **Light Breakfast/Coffee**
- 8:00 **Section 1 – Introduction**
- Workshop Goals
 - Business Cycle
 - Rules of Thumb for Costs of Compressor
 - Station & Pipeline Facilities
 - Contents of 1 Cubic Foot of Natural Gas
 - Gas Terminology, Definitions, Conversions and Topo
- 9:00 **Section 2 - Compressors**
- Recip Compressors
 - Capacity Control
 - Preliminary Bottle Sizing (*Exercise 1*)
 - Centrifugal Compressors
 - Drivers
- 11:30 **Lunch**
- 12:30 **Section 2 – Compressors, CONT**
- Sizing, Selection (*Exercise 2*)
- 2:00 **Section 3 – Gas Cleaning**
- Gas Cleaning
 - Guide to Better Process & Gas/Liquid/Solid Separation
 - Separator Selection (*Exercise 3*)
- 3:30 **Section 4 – Coolers**
- Air Cooled Exchangers
 - Cooler Sizing (*Exercise 4*)
- 5:00 **Adjourn**

Day 2

7:15 **Light Breakfast/Coffee**

8:00 **Section 5 – Electrical (8:00)**

- Division, Classification, Ventilation (Exercise 5)
- Gas and Fire Detection Systems (Exercise 6)
- Emergency Action Plan
- Electrical Loads, Generator, MCC Selection (Exercise 7)
- Parameters for Sizing Wire and Conduit
- Sizing Cable & Conduit
- Lighting

12:00 **Lunch**

1:00 **Section 6 – Automation**

- Typical Distributed Control System
- Typical Instruments, Control Valves
- I/O, PLC Functions

2:00 **Section 7 – Auxiliaries**

- Silencers
- Tanks
- Instrument Air
- Instrument Air Load Study (Exercise 8)

3:00 **Section 8 – Site Conditions**

- Environmental, Health, Safety
- Accessibility, Layout

5:00 **Adjourn**

Day 3

7:15 **Light Breakfast/Coffee**

8:00 **Section 9 – Commercial (8:00)**

- Bid Evaluation, Bid Tabs
- CAPEX Cost Estimate (TIC's)
- OPEX Cost Forecasting (TLC's)

10:00 **Section 10 – Application (9:00)**

- Compressor Station Layout (Exercise 9)
- OPEX Cost Forecasting (TLC's) (Exercise 10)
- Compressor Station Evaluation, "What if" (Exercise 11)

12:00 **Adjourn**