PTAC – Vent Gas Capture
Brian Van Vliet
March 30, 2020
Vent Gas Sources

- **Compressor packing**
  - Reciprocating compressor packing glands
  - Continuous flow
  - Mixed in with lubrication oil

- **Liquid storage tanks**
  - Oil storage
  - Scrubber dump collection
  - Separator dump collection
    - Highly Variable

- **Natural Gas Dehydration**
  - Variable flow
  - Liquids removal requirements

0.8 to 4.2 m³/h (29 to 147 scf/h) 4 cylinders

Where does the gas go currently?

0 to 20 m³/h (0 to 700 scf/h)

Vapor Recovery Unit (VRU)

Flare
Methane Regulations - SlipStream®

**What is it?**

- Captures normally vented hydrocarbons and uses them as supplementary fuel
- Improves engine or burner efficiency while reducing CO$_2$(e) and VOCs
- Significant fuel and emission reductions
- Easily integrated into new and existing installations
- Safe, reliable and efficient engine or burner operation
- Meets North American vented emission compliance regulations

**What are the applications?**

- Vent capture on compressor packing vents
- Cactus dryers, glycol dehydrators, condensate tanks
- Compressor stations
- Well sites
- Pipeline stations
Gas Flash-off from Liquids Tanks

Flash-off gas has high VOC content

Liquids tanks
Boil-off gas collection pipe

Engine air intake and filter

Turbo-charger

Gas from SlipStream® control system added to engine intake air
Delivered Impact

- GHG emissions in the conventional oil and gas industry are produced during combustion of fuel in natural gas engines and through venting, flaring and fugitive sources.

- Why not capture volumes that can still be used to do work?

- In the area of natural gas compression, Spartan’s patented REMVue® and SlipStream® technology has removed a total of 6.5 Mt of CO2(e).

- This technology provides one of the lowest abatement costs for GHG reductions in the industry.

ConocoPhillips invested in SlipStream® with CCEMC funding.
Contact Me

Brian Van Vliet – Environment Solutions

Phone
(403-589-1743

Email
vanvliet.brian@spartancontrols.com

24/7 Support
+1 (877) 276-6404

join the conversation