

GMI Expo 2103

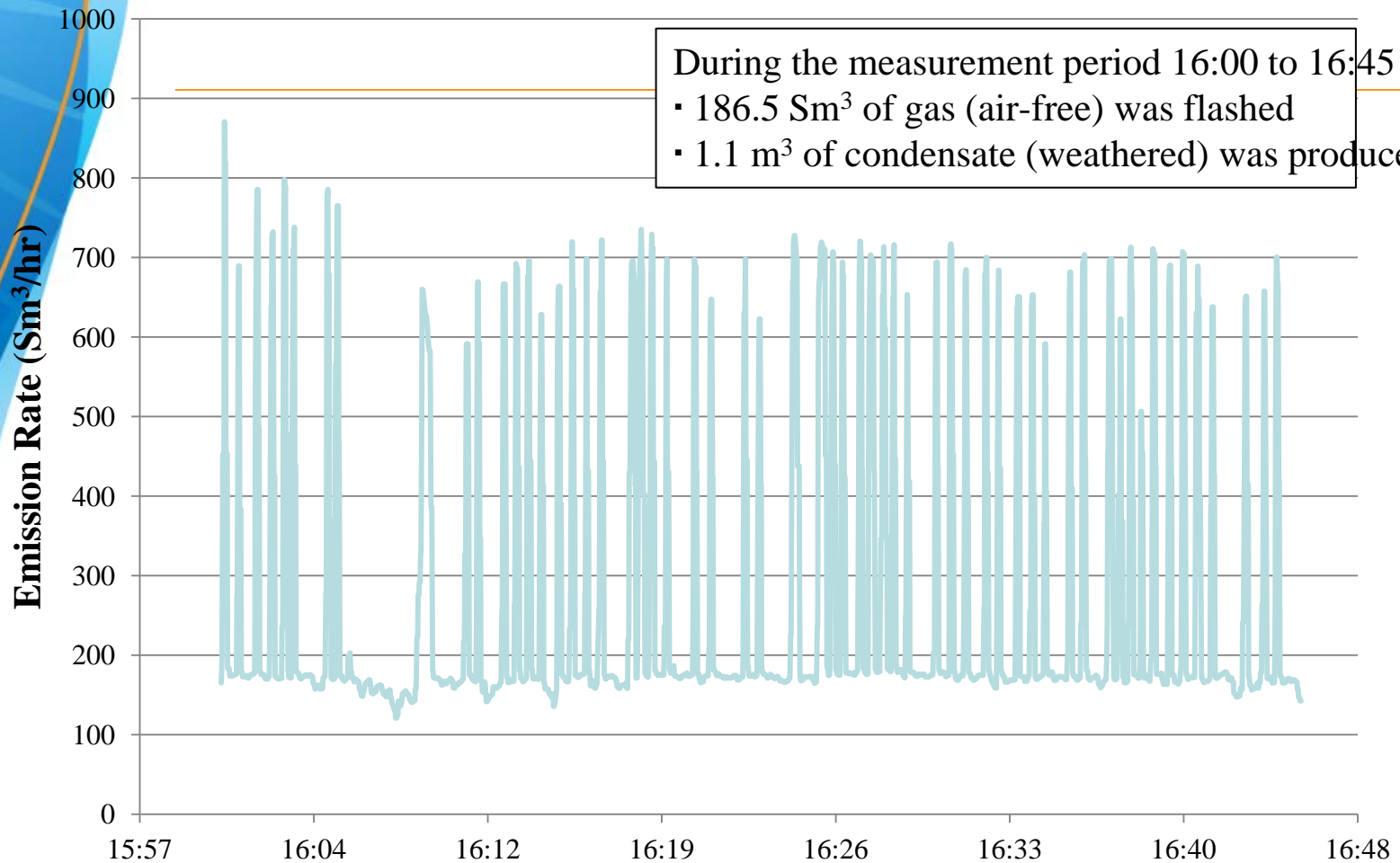
Management of Flashing Losses from Condensate Tanks at Compressor Stations

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Vancouver, Canada

7-30 Condensate Tank Flashing Losses



During the measurement period 16:00 to 16:45

- 186.5 Sm^3 of gas (air-free) was flashed
- 1.1 m^3 of condensate (weathered) was produced

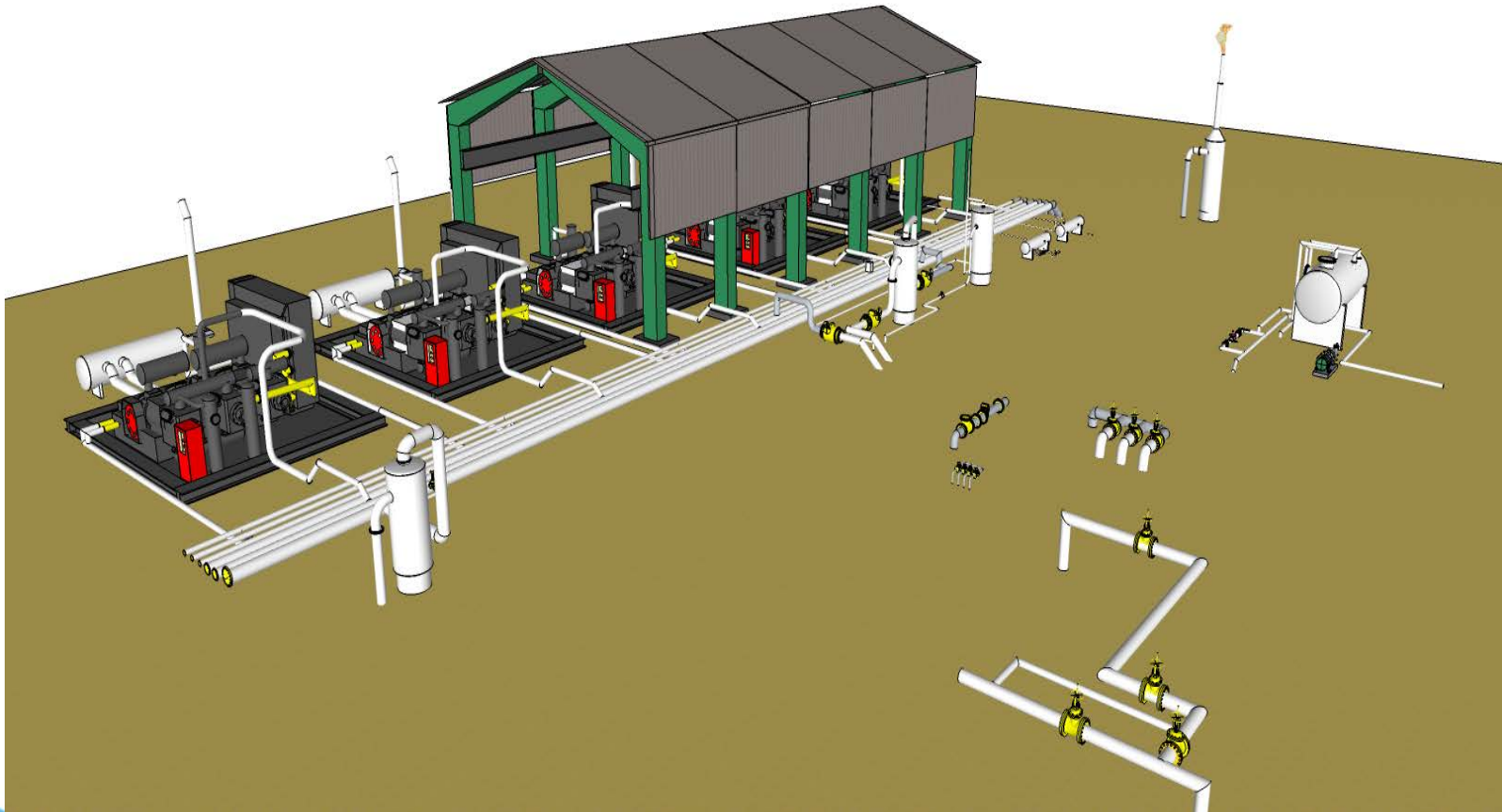
Incorrect Sizing of Vapour Control Systems



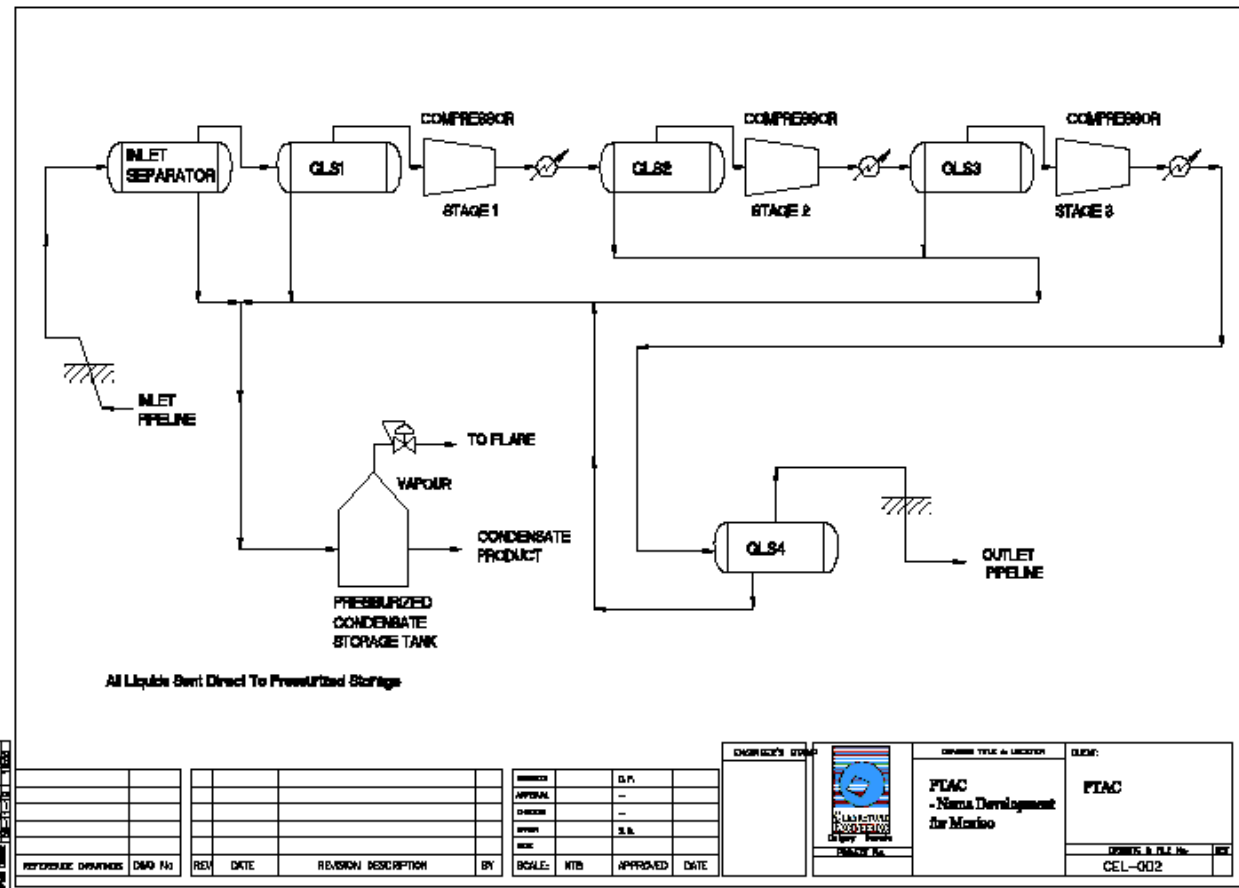
- Standard designs commonly applied at production facilities with limited consideration of site-specific conditions:
 - Frequency and duration of separator dumping events.



Compressor Station With Pressurized NGL Storage

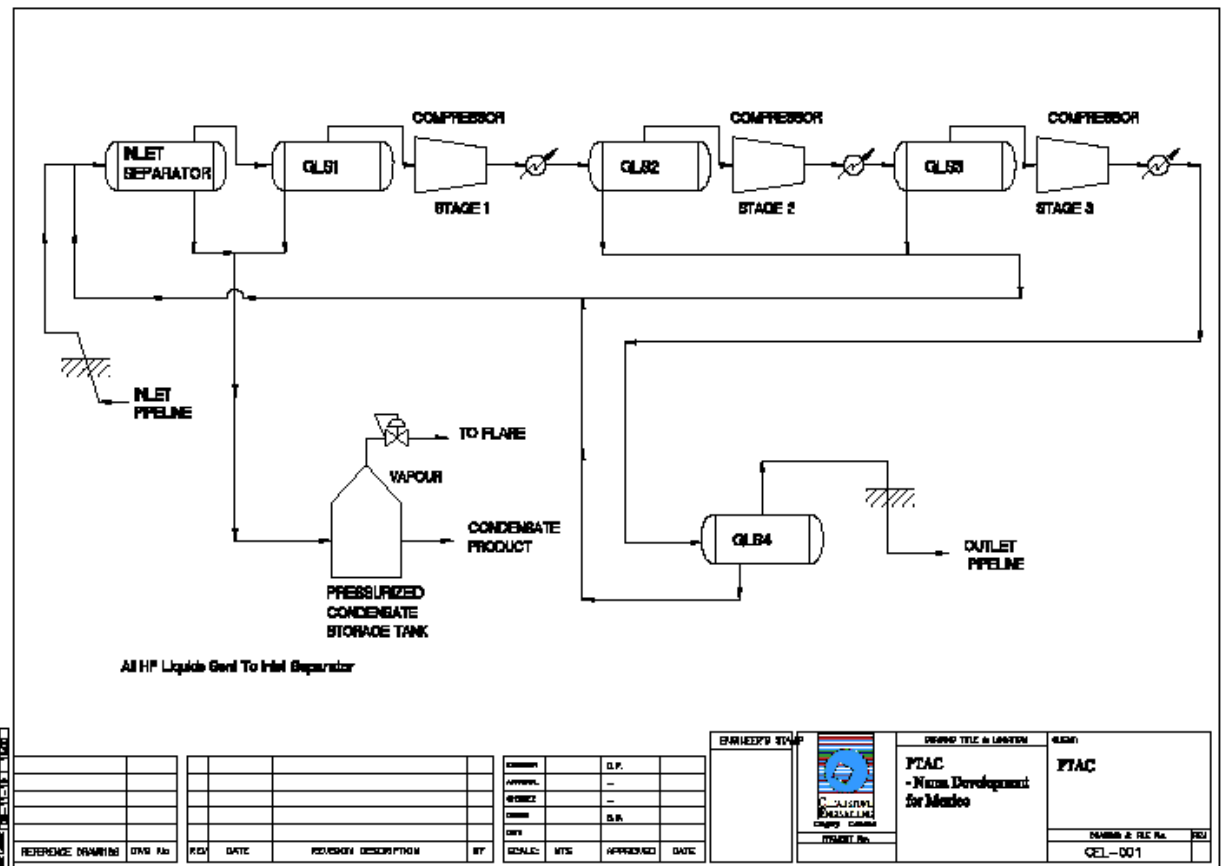


PFD – Standard Practice



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Modified Piping Arrangement



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Economic Analysis

Avoidable Emissions (t/y)			Avoidable Losses(m ³ /y)			Value of Avoidable Losses (\$US/y)			
CH4	VOC	GHG (Flaring)	Natural Gas	LPG	NGL	Natural Gas	LPG	NGL	Total
0.43	0.16	144.6	47,583	11.0	3.5	7,632	2,202	2,202	12,036

Facility Throughput = $41.2 \times 10^3 \text{ m}^3/\text{d}$ (1.45 mmscfd)

Conclusions

- Design and operating practices for vapour control systems should be reviewed to assess their effectiveness & environmental impacts.
- Benefits for greenfield projects are improved performance at no or minimal incremental costs.
- Potential to upgrade existing installations in a cost-effective manner.

Thank you!

