

GENERON® PROCESS GAS TECHNOLOGY

Low Temperature Separation Unit

(LTS)

At the wellhead, natural gases are saturated with water. When water-saturated natural gas flows in a pipeline **problems** can occur:

- **Liquid water can collect in pipelines and increase the pressure drop and cause slug flow.**
- **Free water can freeze and form solid hydrates and reduce the gas flow or plug the line.**
- **Acid gases (H₂S&CO₂) dissolve in free water and will cause severe corrosion.**

Hydrate formation is **prevented by drying** the gas by heating, chemical addition, solid desiccant and membrane dehydration.

GENERON helps customers choose the most efficient and cost effective dehydration system for their gas application and specifications. Contact our professional engineering team at 713.937.5200 or www.generon.com for more information.

GENERON facilities are **ISO 9000** Certified and follows **NEC/CEC** (USA & Canada), **ATEX** (Europe), **AS/NZS** (Australia), **ICEC_x** (Worldwide) explosion protection requirements.

Our **ASME** vessel shop (HVM) builds columns and separators in house, consequently delivering competitive priced products and complete accountability.

The GENERON® Advantage

- **Extensive Experience** - custom designed skids
- **State-of-the-art Membrane** - high recoveries
- **Simple Solution** - no moving parts, minimal maintenance
- **All ASME pressure vessels designed and manufactured in house.**
- **Remote Operation** - Minimal attention required, fully automated systems
- **Combine mechanical refrigeration with J-T effect**
- **PED, GOST, CRN, R13 Certified—Ideal for High Spec projects**

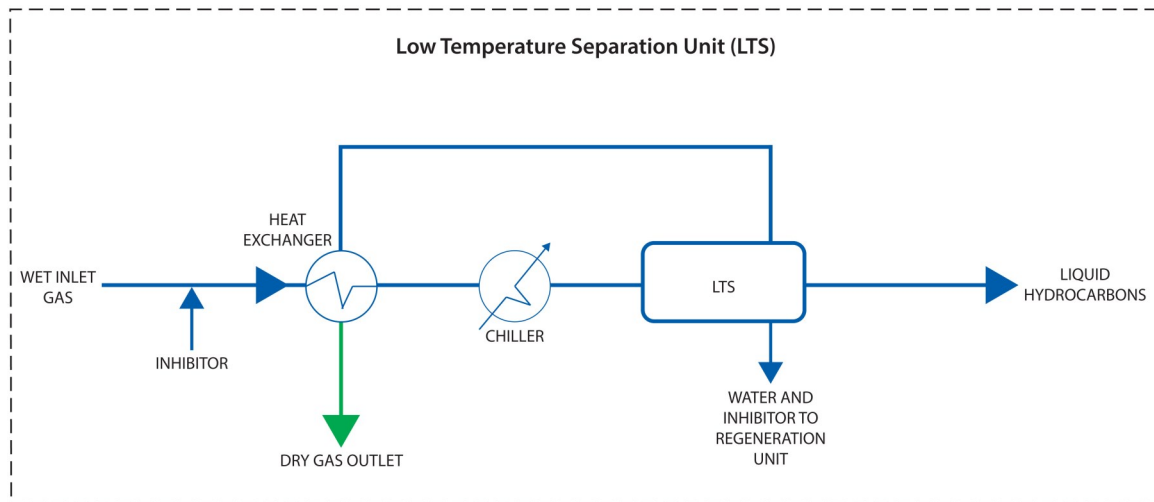


GENERON® HYDRATE INHIBITOR UNIT

Low Temperature

Gathering Lines moving water-saturated gas from the wellhead to a central treating section, can plug with hydrates if gas temperatures drop below the hydrate expectancy value. Many chemicals depress the temperature at which hydrate and ice form. Historically ammonia and brine were used, however the most popular inhibitors today are ethylene glycol (EG), diethylene glycol (DEG), and methanol (MeOH).

A gas stream leaving a Low Temperature Separator (LTS) should be considered water saturated at the separator temperature and pressure. Conversely, the water dew-point of the gas is reduced to the temperature in the separator.



CHILLER DEHYDRATION with EG or METHANOL INJECTION:

- Ideal pressures >75 psi
- Ideal temperature <160°F / 71°C
- Dew Point: -50°F / -46°C
- Low Flow Rate Dew Point: -120°F / -84°C
- This system has the ability to dry a gas with high heating value.



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