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®

Corrosion comparison:

Williams, solves corrosion challenge with NORKOOL DESITHERM™ HS Fluid

For gas storage sites, salt contamination represents one of the most pervasive challenges to reliable operations. Traditional triethylene glycol (TEG) solvent used for gas dehydration has been an industry standard for nearly a century. Yet, TEG has an extremely low solubility for salts, causing corrosion and plugging challenges in addition to higher levels of maintenance and replacement.

Looking to optimize its production and the longevity of its assets, key industry associates Williams natural gas and clean energy company, collaborated with Dow to test our NORKOOL DESITHERM™ HS Specialty Dehydration Fluid on a fire tube side by side with another fire tube run with TEG, and then tracked the change outs along the way.

Over the 18-month trial period, here is what we found:

**FIRE TUBE A
(RUN WITH TEG-ONLY)**



**FIRE TUBE B
(RUN WITH NORKOOL DESITHERM™ HS Fluid)**



FIRE TUBE A (RUN WITH TEG-ONLY)

- ⊗ Standard TEG degeneration; needed midseason replacement of fire tube
- ⊗ Poor solubility of salts
- ⊗ Higher TEG replacement rates
- ⊗ Frequent filter change outs throughout trial, adding cost to maintain operations
- ⊗ Severe corrosion and pitting within fire tube

FIRE TUBE B (RUN WITH NORKOOL DESITHERM™ HS Fluid)

- ✓ Extended filter life: Filter changes have reduced by >50%
- ✓ Reduced make up rate throughout trial
- ✓ Excellent resistance to plugging plugging or fouling in dehydration units
- ✓ Fluid possesses properties that minimize scale formation and salt build up within unit
- ✓ Inhibitors provide pH control to prevent corrosion and passivate metal to protect system
- ✓ Prevented midseason replacement of firetube, avoiding costly downtime during peak months
- ✓ Fully compatible with current dehydrator equipment, no system changes needed to operate

“We came to Dow looking to try out new innovative ways to improve our operational productivity and the longevity of our assets. After consulting with their technical team, we decided to test their NORKOOL DESITHERM™ HS Fluid next to the traditional TEG we had been using at Williams Station 54.

Within the first 18 months we already began to see improvements. After establishing the trial, we have been greatly impressed by the results from reduced maintenance, to more uptime and decreased operating costs. We are in the process of converting our other dehydration units over to NORKOOL DESITHERM™ HS Fluid.”

— Joey Vidrine, Station 54 Lead Technician

ABOUT NORKOOL DESITHERM™ HS FLUID: Dow Solution, NORKOOL DESITHERM™ HS Specialty Dehydration Fluid, is an innovative, inhibited TEG-based desiccant with a higher solubility for salts than pure TEG. It replaces conventional TEG to keep more of the salts in solution, which offers a number of operational benefits that directly impact dehydrator performance and online operation.

**Visit [dow.com](https://www.dow.com) to
learn more.**

**Contact us to solve your
corrosion challenges.**

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