COS SAFETY SHARE

WHAT WILL WE DO TO PREVENT THIS FROM HAPPENING HERE?

FIRE IN GLYCOL REGENERATOR AND HEATER TREATER EXTINGUISHED IN 10 MINUTES

What happened?

Two workers were on the top deck monitoring the compressor and production equipment after bringing the compressor online. A worker report hearing a release of pressure and saw flames at the Glycol Regenerator and Heater Treater. He immediately activated the Emergency Shutdown System (ESD) then proceeded to announce a fire on the top deck by the Heater Treater over the radio, then sounded the Fire Alarm. While workers were extinguishing the fire at the southwest side of the regenerator, the fire spread to the northwest side of the Reboiler. Fire was extinguished within 10 minutes.

What went wrong?

Root Cause findings during the investigation support a hydrocarbon vapor/mist from holes in the still column being the fuel source that was ignited by heat from the Reboiler firetube exhaust stack. "Condensate rich" vapors were most likely discharged through holes in the Still Column migrating towards the Exhaust Stack.

Why did it happen?

Holes in the Still Column were the result of internal corrosion. Evidence of the holes being produced by a pressure buildup is supported by signs of the edges of one of the holes being flared outward. Excessive carbon buildup in the Still Column vent piping resulted in a reduced inner diameter likely contributing to elevated backpressure on the Still Column. The point of entry of the glycol into the Reboiler is in the Still Column nozzle neck, directly above the wasted deflector plate and directly above the hottest section of the Firetube. The proximity of the Exhaust Stack to the compromised Still Column enabled the ignition.

What areas were identified for improvement?

Performed a condition assessment of all still columns across the Gulf. This one was the only one identified with identified excessive internal corrosion.

Replaced still column with thicker wall material. Mechanical Integrity program has been updated to specify a 5-year inspection cycle for the still columns to coincide with firetube inspections.

Continued enhancement of proactive prevention measures including [Infrared camera] surveys for detection of leaks and fugitive emissions, thermal imaging of electrical components, and inspection parameters for rotating equipment.

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