

COS SAFETY SHARE

WHAT WILL WE DO TO PREVENT THIS FROM HAPPENING HERE?

NON-LOCKING VALVE LEADS TO TRIETHYLENE GLYCOL RELEASE

What happened?

The control room operator (CRO) received a low-level alarm on the glycol surge tank. The CRO notified deck operators to investigate to see where the loss of fluids could be coming from. Upon making rounds of the glycol system, a production operator noticed that a 1/4" ball valve was partially open. Approximately 935 gallons of Triethylene Glycol (TEG) had released to containment over a 9.5hr period.

What went wrong?

The 1/4" ball valve was tubed up and left that way instead of being capped.

Why did it happen?

- The valve was very easy to turn. There is also no "locking" mechanism in place to prevent accidental valve movement.
- The barricade did not provide adequate barriers to keep personnel away from process equipment.
- There are no "Run Rate Alarms" in place on low level alarms that would alert personnel of rate changes.
- There were no operations personnel present at the toolbox talk. Some workers didn't fully understand the glycol system.

What areas were identified for improvement?

Operators close valve & secure area.

A short-term solution will be to order simple locking mechanisms for small quarter turn valves. Operations to carry out a campaign to install. Long-term solution is to spec 1/4" valves in the future that have spring loaded handles to lock in place.

Initiate Management of Change (MOC) to add rate change alarms. Develop job aid for what to look for at jobsites (checklist). Permits to include the wording "VALVES" in the control statement as regards flagging/locking in place.

Operations personnel to be present during Toolbox Talks (TBTs) when work scopes are being carried out on live process equipment.

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