

COS SAFETY SHARE

WHAT WILL WE DO TO PREVENT THIS FROM HAPPENING HERE?

55 lb. Valve Falls 15 Ft in Dropped Object Near Miss

What happened?

An operations technician reported a dropped object event while performing preparations for the facility shutdown. There are a series of 18" valves that are manipulated using chain actuators. While pulling on the chain to manipulate the valve, the chain mechanism connected to the valve wheel became dislodged and fell to the deck 15ft below. The operator was able to take evasive action and avoided contact with the falling chain and wheel. No injuries were sustained. There were two additional operators standing within 5ft observing this task when the event happened. The weight of the chain and wheel was 55 lbs. The area was immediately cordoned off and warning signs installed on potential dropped objects as there are four other valves in the area.

What went wrong?

Operation of the chain wheel operated valve required the person to be positioned within the line of fire.

For the chain wheel operated valve, the fastener failed to secure the wheel to the valve handle and there was no effective alternative secondary retention device.

Why did it happen?

Beyond pressure equipment and piping requirements defined within the Materials Selection and Corrosion Control procedure, there is no evergreen risk-based program that identifies, and quarantines/replaces fasteners that present the broad spectrum of risks as a result of significant chloride stress corrosion cracking in topside structures in existing installations, new designs and introduced installations/ packages.

What areas were identified for improvement?

- Where chain wheels are to be retained, chain wheels, fasteners and clamps shall be painted carbon or low alloy steel.
- Evaluate the feasibility of installing or replacing chain wheel operated valves to include means of alternative secondary retention such as safety cable kits.
- Establish an evergreen risk-based program that identifies, and quarantines/replaces unsuitable materials that present the broad spectrum of risks as a result of significant chloride stress corrosion cracking and other forms of environmentally assisted cracking in topside structures.
- Establish work routines that require - prior to updating procedures, processes and risk assessments - relevant internal and external benchmarking data be made available and incorporated.

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