

Valve Falls from Height Striking a Worker

Description:

While reciprocating casing during a cement job, a valve weighing greater than 15 kg broke off at the threaded nipple union and fell approximately 5 to 6 m, striking a worker in the leg and causing serious injury. Iron securement slings were installed on the treating iron on the rig floor. However, due to the location of the failure on the valve, it slipped through and fell.

What Went Wrong:

- A non-integral valve—a valve that is an assembly of numerous parts rather than one piece—was used on the rig floor as a pump-out line. Although this was a low-pressure application and did not exceed the pressure rating on the valve, a non-integral component is more susceptible to mechanical failure than an integral component.
- Iron securement system and installation did not adequately prevent this valve from falling due to failure at the threaded connection.

Actions Taken/Recommendations:

- Eliminate the use of non-integral components on the rig floor treating iron.
- Install secondary securement on components that have the potential to slip through the primary securement system.
- Develop and implement training on iron securement procedures with a focus on dropped object prevention.
- Increase awareness of potential dropped object hazards through hazard ID program.



Location of the point of failure at the time of the incident

Energy Safety Canada Resources:

- [Dropped Objects Best Practice](#)
- [Dropped Objects Microlearning Video](#)
- Energy Safety Canada has partnered with [DROPS \(DropsOnline.org\)](#) in the establishment of a Canadian chapter. To become a member, review the Terms of Reference on the [Canadian Chapter DROPS website](#) and send an email to express your interest.
- [Are You in the “Line of Fire?” Program](#)

Help industry by sharing lessons learned from an incident. [Submit your Safety Alert.](#)

SHARE AND COLLABORATE

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