

Worker Fatality by Mechanical Asphyxiation

Description:

The driver of a tank truck was unloading fluid at a production facility. The driver was found unresponsive inside the pump box of their truck with their left arm sleeve entangled in the pump shaft. After an hour and 30 minutes of resuscitation efforts by workers and emergency response personnel, the worker was declared deceased from mechanical asphyxiation.

What Went Wrong:

- The factory guard that is normally over the pump shaft had been removed, exposing several catch hazards. The guard was in place the previous day.
- Post-incident testing of the equipment found no abnormal operating conditions that would have required the guard to be removed.
- Evidence indicated that the worker was overtop of the exposed catch hazards, greasing the rear grease point on the pump while the shaft was rotating at 700 revolutions per minute (RPMs).

Life Saving Rules:

This alert relates to the following excerpts from the rules:

Energy Isolation



- I have identified all energy sources.
- I confirm that hazardous energy sources have been isolated, locked and tagged.



[Watch the video](#)

Bypassing Safety Controls



- I obtain authorization before disabling or overriding safety equipment.
- I understand and use safety-critical equipment and procedures.



[Watch the video](#)



View of the exposed pump shaft with no guard



Pump shaft with the guard that is normally in place

Actions Taken/Recommendations:

Engineering controls:

- Installed a grease manifold so drivers do not need to lean over the pump when conducting greasing activities.
- Changed guards on all trucks to a type that fully covers the shaft's catch hazards and is more difficult to remove.

Administrative controls:

- Conducted a policy review with company personnel to review and reinforce that all guards must be in place during operation and should only be removed with authorization and proper lock-out/tag-out (LOTO).
- Added warning decals to the new guards.
- Updated the greasing procedure and in-service documentation.



View of modified guard and grease manifold

Industry Resources:

- [Life Saving Rules](#)
- [Safety Critical Procedures Safety Bulletin](#)

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

SHARE AND COLLABORATE

Energy Safety Canada (ESC) works collaboratively with industry to share information aimed at helping companies of all sizes improve safe work performance.

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