Fatal 5 - Operator struck by flailing pipe when making delivery

WHAT HAPPENED

During the discharge of material from a Feldbinder belly tank into a silo inlet, the pressurised pipe lost its connection on the receiving end inlet. The pipe was flailing, and material was blowing out.

The vehicle operator proceeded to shut off the power take off and opened the pressure dump valve to release the air in the tank, all located at the front of the belly tank.

The vehicle operator then proceeded to return to the hazardous area at the rear of the tank to shut off the pinch valves. Visibility was poor due to material blowing out of the pipe. It was at this stage the flailing pipe struck the vehicle operator's leg which caused bruising and required first aid treatment This resulted in a lost time accident and a RIDDOR reportable over 3-day injury.

Picture 1 shows the scene immediately after the incident. The green oval is the location where the vehicle operator was initially positioned during discharge, and the red box is the silo inlet the pipe was attached to.

Picture 2 shows how the pipe was reattached post incident following the correct working method. No issues were found with the coupling and the couplings were in good condition.

Contributing Factors

Following the incident a review established the following: Picture 2 shows kinks in the pipe. Kinks restrict the flow of product causing the pipe to move and jump about resulting in excessive vibrations on all couplings through surges of material in the pipe. The material should have a steady state of flow.

The root cause of the pipe coming off was the vehicle operators pipe selection. With the correct selection of pipe, the material would have a steady rate of delivery and not cause excessive vibrations.

Root cause of the vehicle operator being struck by pipe was the vehicle operator returning to rear of tanker. If the vehicle operator had let the tank lose pressure and stayed clear of the hazardous area, they would not have come into contact with the flailing pipe.



Image 1



Image 2

LEARNING POINTS / ACTIONS TAKEN

- Risk assessment and safe system of work reviewed

- Refresher training delivered to drivers focusing on correct selection of pipe.

- Whip check safety cables to be fitted.(*only if the anchoring point on the fixed end is deemed secure enough to take the force of a flailing pipe.)

LOCATION:	**LIME & SLAG PLANTS**	**ALERT STATUS:**	**Normal**
ACTIVITY:	**TRANSPORT & LOGISTICS / DELIVERY**	**DATE ISSUED:**	**03/02/2021 11:43:19**
SUB ACTIVITY:	**DELIVERING ADMIXTURES & CHEMICALS**	**INCIDENT No:**	**03584**