



SIGNAL[®]

OPERATIONAL ALERT



Operational Alerts inform Signal Mutual Members of serious incidents within the Mutual that resulted in permanent disability, death, or a significant near miss. If you have similar operations, please share this Operational Alert and have a safety discussion with operation managers, supervisors, equipment operators, and all affected employees. It is imperative that management review their operational controls at all levels to mitigate similar hazardous conditions and/or acts.

INCIDENT: PRESSURIZED VESSEL SAFETY

SUMMARY OF RECENT INCIDENT

Incident: A grit truck delivery driver was making a grit delivery for a preservation subcontractor when he suffered life-threatening injuries. The truck driver reportedly climbed on top of his delivery truck to check on an unknown "issue". The trucks' tanks were pressurized with approximately 15 PSI of air pressure. The driver worked to open one of the tank lids and it blew off the top of the tank striking the driver in the head. The driver was knocked unconscious and fell from the truck (a significant height without any protection to arrest his fall). Nearby workers responded immediately to provide CPR and assistance. The injured driver was transported to a local hospital via ambulance.

CONSIDERATIONS

Operational Task Review: Pressure vessels with quick opening doors or lids *can present a high risk of sudden violent release of stored energy*. Management should establish definite operating procedures and have them prominently displayed and followed by all personnel. These procedures would ensure:

- that special care be exercised in loading to prevent damage to the vessel, door gasket, and gasket bearing surfaces;
- closing of the door must be done only by authorized personnel thoroughly acquainted with the locking mechanism and safety devices;
- that the gasket and contact surfaces must be clean and free of any debris. Should any binding occur during the closing, the trouble must be determined and corrected. Under no condition must the door or locking mechanism be forced into position;
- that safety devices, controls, and interlocks must be checked for proper operation;
- that all doors and caps are held in place by hinges or contain a lanyard to prevent them from becoming projectiles;
- at the end of the opening cycle, no attempt must be made to open the door until the operator is **CERTAIN** that all pressure has been dissipated.



Since most of the accidents involving vessels with quick-opening closures are caused by improper operation and poor maintenance, operators must make certain that neither is neglected.

In this case, it is presumed the driver climbed up on top of the truck to investigate without pausing to consider the hazards or risks associated with this pressurized system, or the need for a safety harness & lanyard when working at heights of four feet or greater from ground level.

Equipment operators must always ensure that the air supply used to pressurize the tank is properly secured and that any residual pressure in the tanks is properly relieved. Additionally, there are often pressure relief valves associated with this type of pressure vessels that must be tested and calibrated.

We should all be aware of the risks and hazards associated with working around "Pressurized Vessels".

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