

FATALGRAM

ALASKA DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT

Date of Accident: March 20, 2008

Construction

On March 20, 2008, an employee was caught between a front-end loader and a mixer truck during towing operations. The victim was attempting to secure the mixer truck to the loader with a tow chain when the unattended loader rolled into the stationary concrete mixer and fatally crushed the mixer truck operator.

Description of Incident: The victim, a concrete-mixer truck driver, was in the process of delivering batched concrete to a remote hydro-electric construction project.

Concrete delivery to the project was complicated by several factors. The remote construction site, located approximately three miles from Skagway, was only accessible by water or air. Concrete-mixer trucks were loaded in Skagway and then barged to the construction site access area. The steep grade and rough unpaved access road between the access area and the construction site required that the mixer trucks were towed up the hill using a wheeled front-end loader.

Alaska Occupational Safety and Health (AKOSH) enforcement investigated this incident. Base on the investigation, it appears the victim drove the 1994 Peterbilt concrete-mixer truck up the hill until the conditions stopped the vehicle's forward progress. The 1981 John Deere 44C front-end loader was then backed into position on the hill to tow the mixer truck the final distance to the construction site. The concrete-mixer truck driver got between the back of the loader and the front bumper of the concrete-mixer truck to attach the tow chain. The investigation revealed that the loader operator grounded the loader's bucket, set the parking brake and then exited the loader's cab. The loader operator helped the victim attach the tow chain and was walking back to the loader's cab when the loader rolled backward and crushed the victim between the two pieces of equipment.

AKOSH evaluated the loader's parking brake during the investigation and determined that when parked on a similar grade, the parking brake failed to function properly.

ACCIDENT PREVENTION RECOMMENDATIONS:

- Ensure that drivers and equipment operators are trained in proper safety procedures for unique towing procedures. Special hazard considerations and procedures should be considered for towing connection/disconnection processes, particularly when performed on a sloping grade. Some procedures for consideration during the towing apparatus connection/disconnection process may include:

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- Hazardous zones and functions such as the towing apparatus connection process and the area between or near vehicles that could result in crushing injuries should be identified.
 - During the connection process, the operator should remain in the operator seat of the equipment.
 - Prior to the connection process, the operator of a vehicle engaged in a towing operation should place the transmission in neutral, lower the bucket, engage the parking brake and nay system backups and ensure that the vehicle is stable and secure before signaling for another individual to enter the hazard zone and connect the towing apparatus.
 - After the towing apparatus is connected the operator should make positive eye contact with the individual connecting the towing apparatus to ensure the person is clear of crushing hazards or other identified hazards, such as being struck by the towing chain or cable, prior to disengaging the braking system and beginning towing operations.
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- Ensure that written safety procedures and policies are followed.
 - Inspect equipment daily to ensure all brake systems are functioning properly.
 - Unattended equipment parked on a grade should be turned off with the wheels choked, the emergency and parking brake engaged, and the bucket (if equipped) properly lowered.
 - Equipment must have a positive means to prevent the equipment from rolling if all systems were to fail.