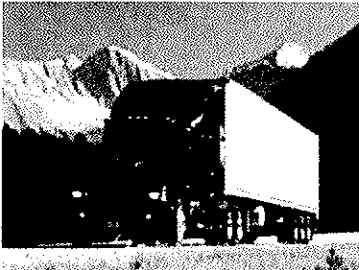


Fatal Facts



April 30, 2005
Report # 47-8-2005

Hazards to Truck Drivers Loading and Unloading



Loading and unloading materials, goods and products from trucks is a daily activity in many businesses. It is also a regular and frequent source of workplace fatalities. In Washington State there were 10 workplace fatalities while loading and unloading trucks in 2004.

- From years 2000-2004 there were 26 workplace fatalities associated with loading or unloading activities in Washington State.
- Sixteen of the 26 incidents involved truck drivers.
- These incidents are preventable by assuring that proper procedures are followed

These are brief case descriptions of selected fatalities that happened during truck loading and unloading in Washington State in 2004:



Case 1

On September 9, 2004 a truck driver was standing on the bed of his tractor-trailer rig watching a forklift move a four-ton milling machine onto his vehicle. As the forklift moved forward, the milling machine tipped over and crushed the driver.



Case 2

On August 24, 2004 a truck driver was rolling up his tie-down straps on the passenger side of his truck while a forklift operator was unloading 1"x24"x50' plastic pipe from the driver's side. While trying to get the forks under the pipes, the forklift operator knocked the load of pipes off which struck and killed the truck driver on the other side of the truck. This incident happened at a construction site.



Case 3

On November 3, 2004 a truck driver was killed when a pallet of lumber fell on him during off-loading at a shipping company warehouse. The victim had been watching a forklift operator unload his truck.



Case 4

On October 6, 2004 an owner operator was taking the binders off a load of logs that he was delivering to a mill when the logs fell off the truck and struck him.

How to Prevent Truck Loading and Unloading Incidents

- All personnel on foot must be clear of the loading zone during operations
- Properly secure loads on trucks, forklifts and cranes
- Loaders & drivers must know and practice hazard ID and safe work practices
- Institute procedures to assure people are clear of trailers/wheels before moving

Incidents happen for many different reasons. The following list of prevention measures help address some of the other hazards that may lead to a serious injury or fatality while loading or unloading trucks.

Additional Controls for Prevention

- **Protect all gaps and drop-offs at loading docks**
- **Assure appropriate forklift equipment and training**
- **Never be downhill of a moving load**
- **Implement safer sheeting and tarping equipment or procedures**
- **Use wheel chocks and other vehicle restraint devices**
- **Logging trucks require specific attention**

The purpose of this FACE Fatal Facts is to alert people to the hazards of truck loading/unloading and to help prevent future deaths when performing these jobs. The first page of this report can be posted on a bulletin board. The additional pages describe the recommendations in further detail and provide resource contacts. Following the recommendations described can greatly reduce the risk for a serious injury or death while loading and unloading trucks.

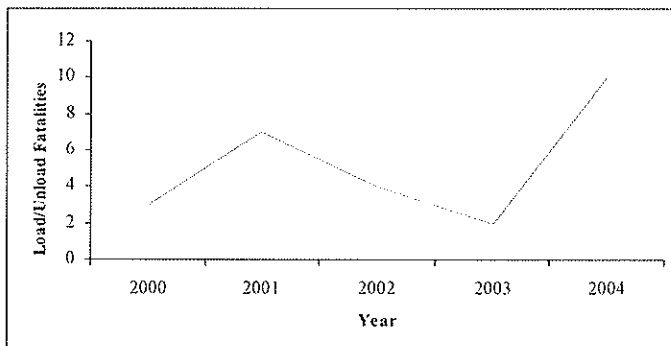


Figure 1. Truck loading and unloading-related fatalities in Washington State during the years 2000-2004.

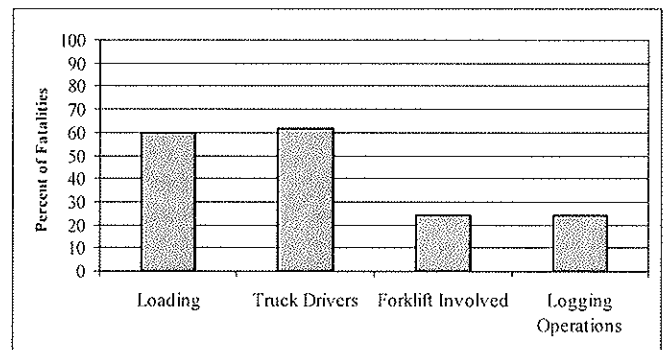


Figure 2. Characteristics involved in work-related loading and unloading fatalities in Washington State during the years 2000-2004.

How Can These Deaths be Prevented?

The ten fatalities that occurred in 2004 point to many of the loading and unloading hazards. These incidents help to identify many of the situations and risks encountered daily by workers loading and unloading material and equipment. Fatalities and serious injuries while loading and unloading trucks are preventable by following prescribed procedures and the use of proper equipment.

Primary Hazard Controls

All Personnel on Foot Must be Clear of the Loading Zone During All Mechanized Loading or Unloading Operations

Material and equipment can shift or break free during any location transfer.

- Workers on foot should never be on the opposite side of a truck from a forklift while it is loading or unloading material.
- Do not allow workers on foot in trailers while a forklift is involved in loading/unloading operations.
- Provide drivers a place to wait away from the truck.

Identify Hazards Before Loading or Unloading

All personnel involved with a loading or unloading operation should assess the potential hazards before the operation begins. A clear understanding of the procedures and communication between workers must be established.

- Site specific knowledge is important.
- Visiting drivers should be made aware of their responsibilities.

Document and Enforce Standard Operating Procedures

Proper loading and unloading procedures should be established by the company.

- All workers in the loading zones should be trained on these safe work practices and given refresher trainings periodically.
- Corrections and enforcement of company procedures, if necessary, should be carried out for any observed hazardous deviations in procedure.

Properly Secure Loads on Trucks, Forklifts and Cranes

All loads must be secured to the truck, container, or trailer to prevent shifting of material and equipment during transport. Equipment such as load bars, vertical supports, and load straps should be used to assure that the load arrives in the same orientation as when it departed.

Correct procedures must be followed any time a load is raised and transferred.

- If multiple items or loads that may shift are moved, these must be properly secured with straps, bands or other means.
- During transfer of any load, all personnel must stay clear of the path of travel.

Institute Procedures to Assure People are Clear Trailers and Wheels Before Moving

Companies should have a procedure in place to make sure that any container, trailer or car being moved is empty of all personnel.

- Drivers should visually inspect and secure any truck or trailer and the area around it before moving it to assure all workers are clear.
- A visual signal such as a sign indicating workers are in a trailer should be visible from the truck mirrors anytime personnel are working in or on a truck at a loading dock.

- Truck keys may be placed on a board by the loader during operations and returned to the driver once completed.

Protect All Gaps and Drop-offs at Loading Docks

All loading docks should be equipped with dock-plates and physical barriers around any gaps that present fall hazards to workers or equipment. Use dock levelers to provide safe access to trailers.

Assure Appropriate Forklift Equipment and Training

Forklift operators are responsible for the safety of ground personnel at the site as well as themselves. Operators must be trained on safe operation of the equipment, load limits, loading procedures, and communication with other personnel.

Never be Downhill of a Moving Load

Personnel should never be downhill of any load or cart being moved. Loads that are too heavy, instability, or equipment failure could cause a cart or lift to move downhill and crush anyone below. Care should be taken by equipment operators and by all personnel on-site to avoid locations that place them below a moving load.

Implement Safer Sheeting and Tarping Equipment or Procedures

Securing loads with tarps and sheeting presents a frequent hazard to drivers and other workers. Implement procedures or mechanical tarping/sheeting systems to assure workers are not exposed to hazards that increase the likelihood of an incident.

Use Wheel Chocks and Other Vehicle Restraint Devices

All vehicles should be parked with a fully operational parking brake engaged during loading and unloading.

- Wheel chocks should be used in addition to the brake, particularly if any slope is present.



Logging Trucks Require Specific Attention

A previous Washington FACE document (47-4-2003) presents logging truck hazards in more detail. Many serious injuries and fatalities occur while loading, unloading and transporting logs. Please refer to the previous FACE document posted on our website at www.lni.wa.gov/safety/research/FACE for detailed recommendations specific to logging trucks.

Tips for Employers

Employers have a responsibility to ensure the safety of their trucks, drivers and other workers. Here are some suggestions for establishing safe work procedures.

1. Analyze company injury data to determine where and how injuries are happening. Target your safety program to address these problems.
2. Establish safe procedures for all types of loading and unloading.
3. Train all workers involved in the operations or in the area of loading and unloading. Refresher training or periodic toolbox talks or information sheets can help provide reinforcement.

4. Supervise workers and provide feedback for proper and improper procedures.
5. Maintain vehicles and equipment in safe operating condition. Failure of straps or anything securing a load can result in an incident. Communication from maintenance to management should occur regularly.
6. Conduct regular safety meetings.
7. Address “macho attitudes” or hasty work habits that may lead to unsafe conditions for people around the trucks.

Getting Help

WISHA Consultation Program

Washington State
 Department of Labor and Industries
<http://www.LNI.wa.gov/Safety/KeepSafe/Assistance/Consultation>

Everett (Region 1, Northwest Washington)
 425-290-1300

Seattle (Region 2, King County)
 206-515-2800

Tacoma (Region 3, Pierce, Kitsap, Clallam, and Jefferson Counties)
 253-596-3800

Olympia (Region 4, Southwest Washington)
 360-902-5799

East Wenatchee (Region 5, Central and Southeastern Washington)
 509-886-6500

Spokane (Region 6, Eastern Washington)
 509-324-2600

WISHA Policy & Technical Services

Tumwater Central Office – Safety
 360-902-5460

Other Resources

- Forklift Safety and Injury/Fatality Prevention:

<http://www.osha.gov/SLTC/powerindustrialtrucks/index.html>

<http://www.cdc.gov/niosh/2001-109.html>

- Safety Standards – Powered Industrial Trucks: WAC 296-863 (Effective 2/1/2005)
<http://www.LNI.wa.gov/Safety/Rules/>
- Safety Standards – Logging Operations: WAC 296-54.
<http://www.LNI.wa.gov/Safety/Rules/>



FACE Fatal Facts

Produced by the **Washington State Fatality Assessment & Control Evaluation (FACE) Program**, which is managed by the Safety and Health Assessment and Research for Prevention (SHARP) Program.

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