

TRANSPORTATION SAFETY

Safety and Health Officer Certificate Programme

OBJECTIVES

- State 3 factors that cause transportation accidents
- Explain 4 methods of preventing transportation accidents
- Identify statutory requirements related to transportation safety

SCOPE

- Purpose of transportation
- Types of transportation
- Statutory requirements
- Accidents related to transportation
- Factors that cause accidents
- Accident prevention measures
- Conclusion



PURPOSE OF TRANSPORTATION

- To move and shift goods, including humans, from one place to another with the use of vehicles

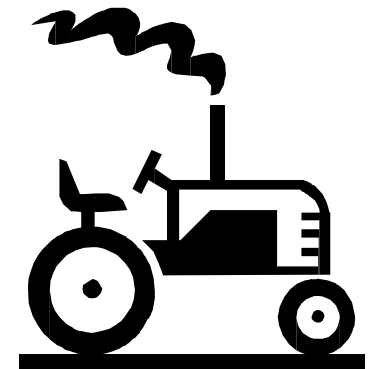


TYPES OF TRANSPORTATION

- Land - Lorry, forklift, train
- Water - Ship, boat
- Air - Airplane



“.. This class will only focus on land transportation at the workplace – forklift ..”



STATUTORY REQUIREMENTS

- Inside the premise:

Occupational Safety and Health Act 1994

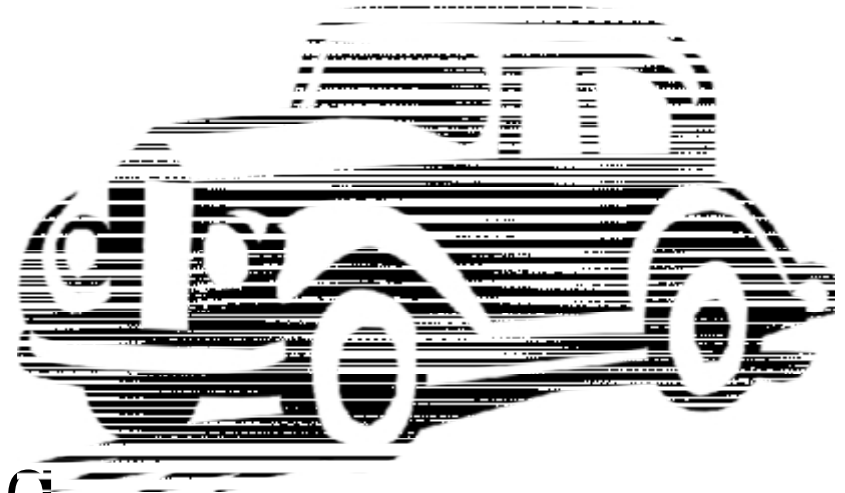
General provisions on the responsibility of the employer to ensure transportation safety

- Outside the premise (On the road):

Road Transport Act 1987 (Amendment) 1999

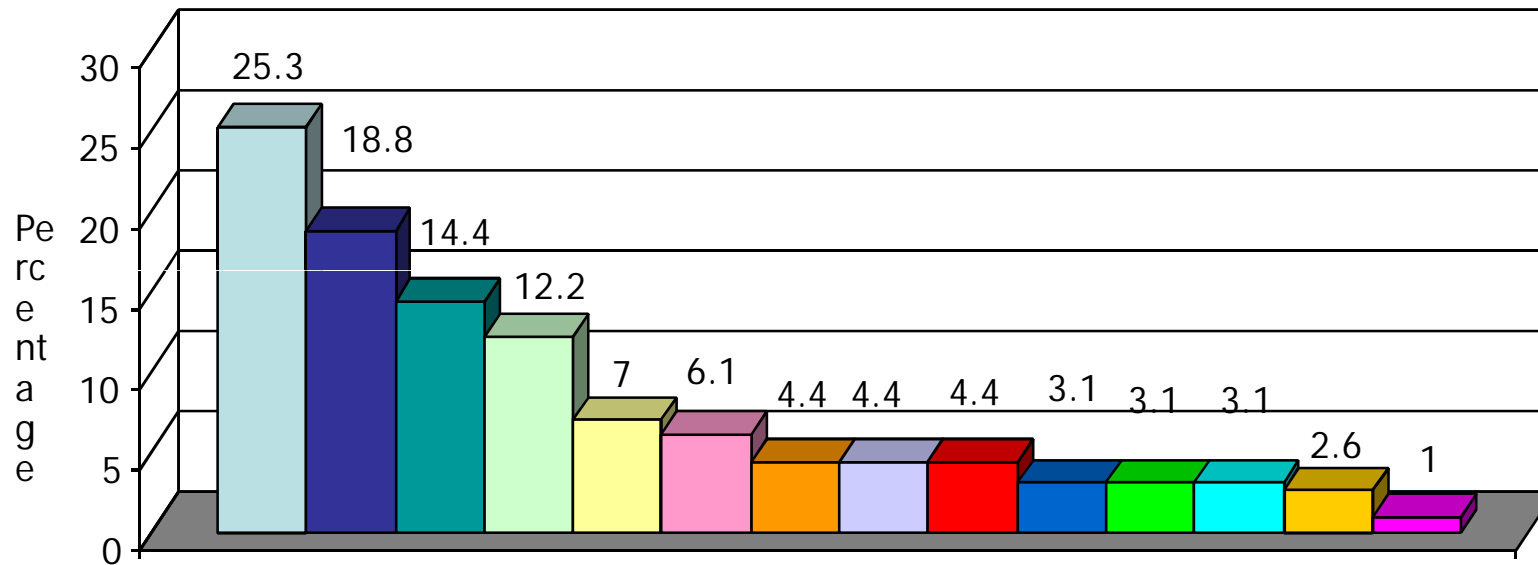
TRANSPORTATION RELATED ACCIDENTS

- Overturn vehicles
- Vehicles hitting building
- Vehicles hitting humans
- Vehicles hitting other vehicles



ACCIDENT STATISTICS FOR FORKLIFT

Percentages of Forklift Accidents

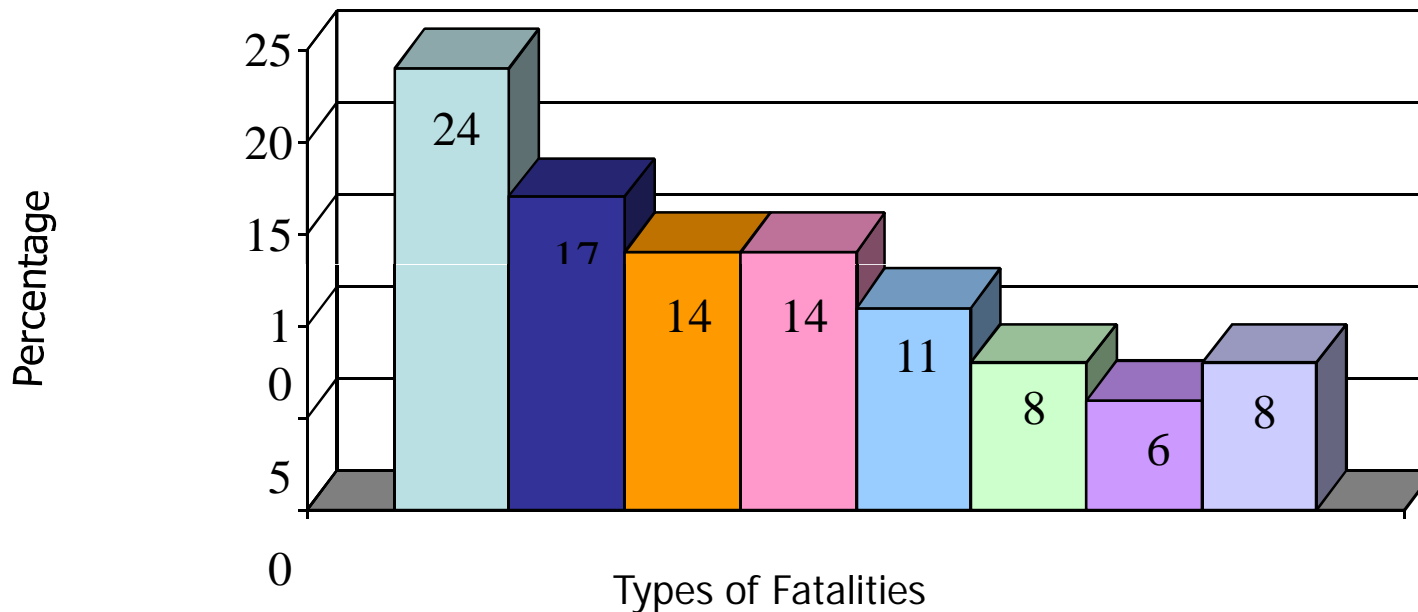


Types of Fatalities

- | | |
|---|---------------------------------|
| Tip Over | Struck by Powered Indus. Truck |
| Struck by Falling Load | Elevated Employee on Truck |
| Ran Off Dock/Other Surface Lost Control of Truck | Improper Maintenance Procedures |
| Truck | Truck Struck Material |
| Employees Overcome by CO/Propane Fuel | Faulty Powered Indus. Truck |
| Unloading Unchecked Trailer Improper Use of Vehicle | Employee Fell from Vehicle |
| Vehicle | Electrocutions |

ACCIDENT STATISTICS FORKLIFT - FATALITIES

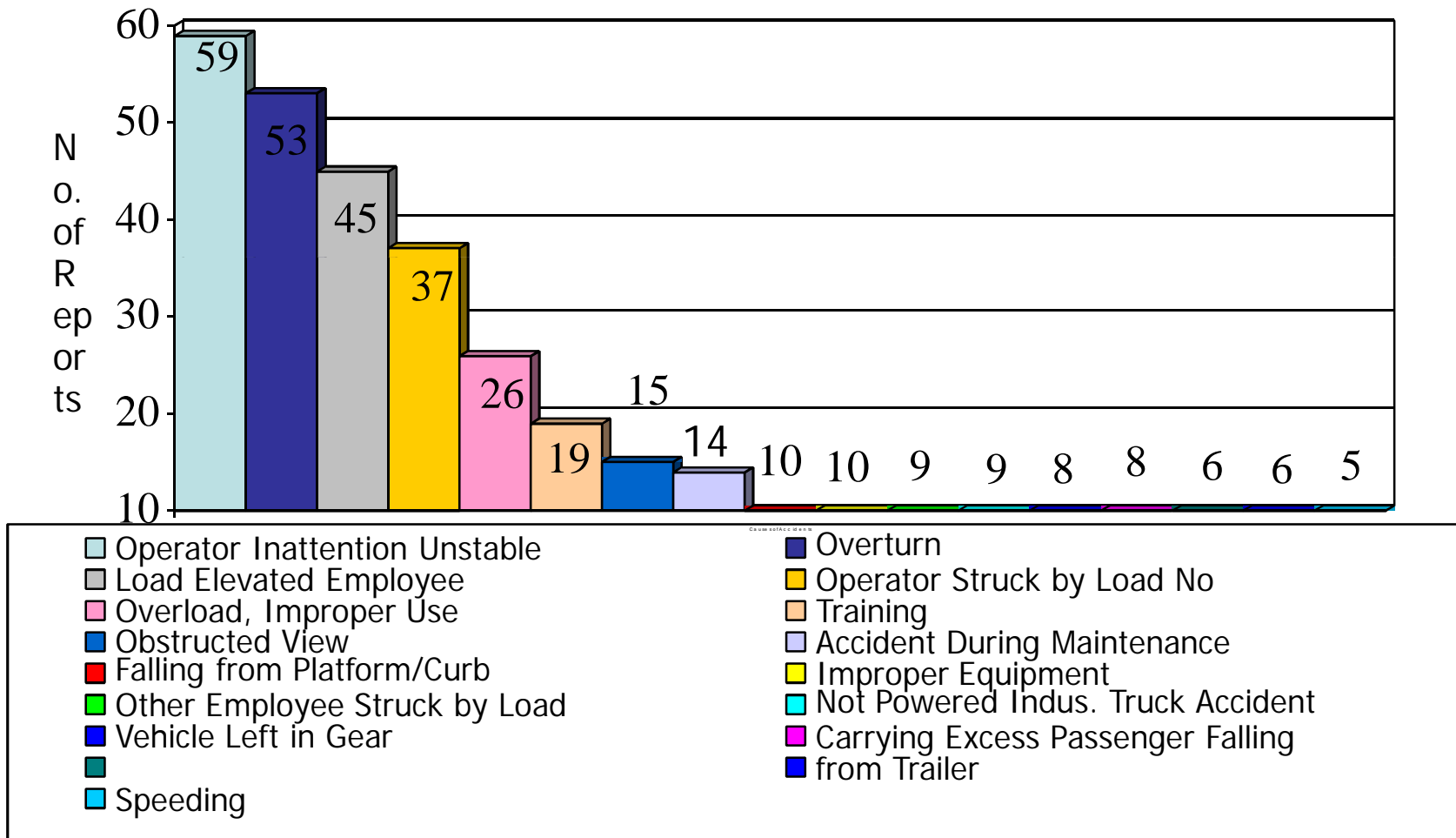
Classifications of Forklift Fatalities



 Forklift Overturned Worker Struck by	 Worker Struck by Material Worker Fell
 Forklift	 from Forklift
 Worker Pinned between Objects	 Forklift Struck Something/Off Dock Other
 Worker Died During Forklift Repair	 Accidents

ACCIDENT STATISTICS CAUSES OF ACCIDENTS

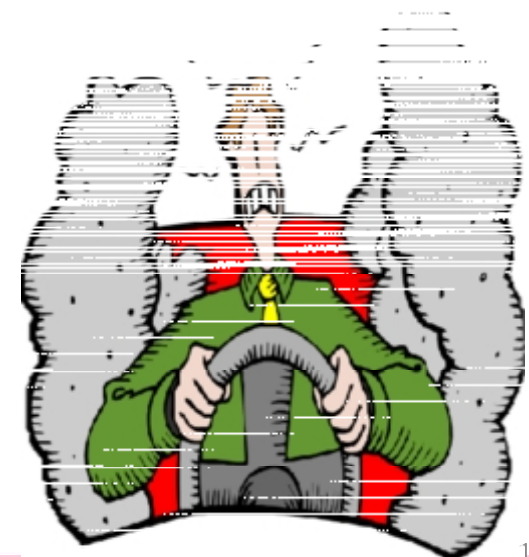
Causes of Accidents - OSHA Investigations Summary



FACTORS CAUSING ACCIDENTS

HUMAN FACTORS

- Mental and emotional stresses
- Lack of knowledge and experience
- No training and skills development
- Lack of physical capacity



FACTORS CAUSING ACCIDENTS

ENVIRONMENTAL FACTORS

- Slippery floor/walkway
- Dark
- Noisy
- Narrow walkway/area
- Uneven floor
- Dusty work area



FACTORS CAUSING ACCIDENTS

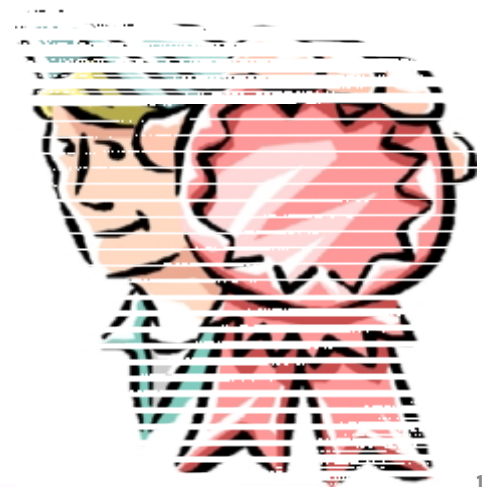
VEHICLE FACTORS

- Overloading
- Mechanical failure – braking system failure
- Insufficient safety equipment
- Faulty design
- Not suitable for purpose of use

ACCIDENT PREVENTION METHODS

(A) CONTROLS - ON THE DRIVER:

- Selection of competent driver
- Provide safety training (including external drivers)



ACCIDENT PREVENTION METHODS

(A) CONTROLS - ON THE DRIVER (cont.):

- Only allowing those with permission to drive
- Encourage feedback/reports on any vehicle damage/unsafe conditions/incidents
- Annual medical test for all drivers

ACCIDENT PREVENTION METHODS

(B) CONTROLS - ON THE VEHICLE:

- Implement proper vehicle maintenance programme
- Conduct vehicle inspection
- Install reverse sensors and alarms



ACCIDENT PREVENTION METHODS

(B) CONTROLS - ON THE VEHICLE (cont.):

- Install device to control vehicle speed
- Proper selection of vehicle as per job requirements
- Use of vehicles is limited to one driver at all times

ACCIDENT PREVENTION METHODS

(C) CONTROLS - ON THE ENVIRONMENT:

- Marking floors with yellow lines
- Ensure the floor structure is capable of handling
- Heavy load – weight of vehicle and goods
- Provide unloading and parking areas



ACCIDENT PREVENTION METHODS

(C) CONTROLS - ON THE ENVIRONMENT (cont.):

- Install mirrors at awkward angles/ corners
- Install warning lamps at vehicle alleys
- Provide separate routes for pedestrians and vehicles
- Provide sufficient lighting for dark areas

ACCIDENT PREVENTION METHODS

(D) CONTROLS - ADMINISTRATIVE:

- Install warning signages - speed limit, no entry, etc
- Supervise critical transportation tasks
- Monitor adherence to procedures/safe work systems that have been introduced
- Formulate and enforce transportation rules in the work premise

CONCLUSION

- Transportation safety, whether goods or human, needs to be given due attention to avoid accidents and unwanted incidences
- Statutory requirements related to transportation safety is outlined in the OSHA 1994 and Road Transport Act 1987 Amendment 1999

CONCLUSION

- Three main factors that cause accidents are human, vehicle and environment
- The most effective method of accident prevention is by controlling the causes