Workplace Transport Safety

Presented by
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Accident Prevention

- Moral
  - Duty of Care
  - Physical and Emotional pain and ill health
  - Staff Morale

- Legal
  - Enforcement and Prosecution
  - Civil Law

- Financial
  - Costs of accidents
  - Loss of trade
Vehicles at work continue to be a major cause of fatal and major injuries. Every year there are over 5000 incidents involving transport in the workplace. About 50 of these result in people being killed. Estimates suggest that up to one-third of all road traffic accidents involve someone who is at work at the time.

(www.hse.gov.uk/statistics)
What to do first?

➢ To manage the risks from workplace transport effectively, you need to consider three key areas:
  ➢ Safe site
  ➢ Safe vehicle
  ➢ Safe driver
Some Dos and Don'ts

- **Do**
  - Keep people and vehicles apart
  - Have clear site rules and enforce them
  - Anchor loads securely to the vehicle chassis
  - Avoid the need to work at height on vehicles

- **Don't**
  - Operate vehicles unless you are authorised to do so
Safe Site
**Safe site – design**

**Segregation**

- Every site is different and likely to present different hazards and risks. However, a well-designed and maintained site with suitable segregation of vehicles and people will make workplace transport accidents less likely.

- The most effective way of ensuring pedestrians and vehicles move safely around a workplace is to provide separate pedestrian and vehicle traffic routes. Where possible, there should also be a one-way system as this will reduce the need for vehicles to reverse, and will help pedestrians and drivers.
Your circumstances might mean that complete segregation is not possible, so you would need to have clearly marked pedestrian and vehicle traffic routes, using measures such as barriers and signs.

There should be separate entrances and exits for vehicles and pedestrians, and vision panels should be installed on doors that open onto vehicle traffic routes.

Where pedestrian and vehicle traffic routes cross, they should be clearly marked using measures such as dropped kerbs, barriers, deterrent paving etc, to help direct pedestrians to the appropriate crossing points.
**Keeping pedestrians and vehicles apart**

- The majority of workplace transport accidents result from the inadequate separation of pedestrians and vehicles.

- This can usually be avoided by careful planning, particularly at the design stage, and by controlling vehicle operations.

- Pedestrian routes should be either located a safe distance away from areas of vehicle activity, or provided with appropriate physical protection, such as substantial fencing and/or kerbs.
Traffic routes

The general principles for safe traffic routes are as follows:

- Make sure they are wide enough for the safe movement of the largest vehicle.
- Ensure surfaces are suitable for the vehicles and pedestrians using them, eg firm, even and properly drained. Outdoor traffic routes should be similar to those required for public roads.
- Avoid steep slopes.
- Avoid sharp corners and blind bends.
- Keep them clear of obstructions.
- Make sure they are clearly marked and signposted.
- Keep them properly maintained.
Visibility

Visibility should be good enough for drivers to see hazards, and pedestrians to see vehicles. Adequate visibility for drivers is related to vehicle speed and the distance needed to stop or change direction safely. Consider having mirrors where sharp or blind bends cannot be avoided.
Speed

- Reducing vehicle speed is an important part of workplace transport safety. Fixed traffic control measures such as speed humps, chicanes and ‘rumble strips’ can reduce vehicle speed. It is important to select the most appropriate control as the wrong measure can increase risk by, for example, reducing vehicle stability.

- Speed limits can also be used, but they need to be appropriate, properly enforced and, where possible, consistent across the site.

- To assess an appropriate speed limit, consider the route layout and its usage. For example, lower speeds will be appropriate where pedestrians are present or where lift trucks and road-going vehicles share a traffic route.
Signs, signals and markings

- Signs for drivers and pedestrians in a workplace should be the same as those used on public roads (as shown in the Highway Code), wherever a suitable sign exists.

- They should be well positioned and kept clean. Where driving is likely to be carried out in the dark, illuminated or reflective signs should be used.

- White road markings should be used to regulate traffic flow, and yellow markings should be used for parking. Wherever possible, such markings should be reflective and maintained regularly.
Lighting

Every workplace should have suitable and sufficient lighting, particularly in areas where:

- vehicles manoeuvre, or pedestrians and vehicles circulate and cross;
- loading and unloading takes place.

Take care to ensure there are no sudden changes in lighting levels which may lead to drivers being dazzled.
Safe site – activity

Reversing

➢ Around a quarter of all deaths involving vehicles at work occur as a result of reversing. It also results in considerable damage to vehicles, equipment and property.

➢ The most effective way of reducing reversing incidents is to remove the need to reverse by, for example, using one-way systems. Where this is not possible, sites should be organised so that reversing is kept to a minimum. Where reversing is necessary, consider the following:

➢ Install barriers to prevent vehicles entering pedestrian zones.
➢ Plan and clearly mark designated reversing areas.
➢ Keep people away from reversing areas and operations.
➢ Use portable radios or similar communication systems.
➢ Increase drivers’ ability to see pedestrians.
➢ Install equipment on vehicles to help the driver and pedestrians, eg reversing alarms, flashing beacons and proximity-sensing devices.
Parking

- Parking areas should be clearly indicated and there should be separate parking areas for commercial and private vehicles. There should also be designated areas where commercial vehicles can be loaded and unloaded.

- When vehicles are parked, their parking brakes should always be applied. On most trailers disconnecting the emergency air line does not apply the trailer parking brake.

- Drivers should never leave a vehicle unattended without ensuring both the vehicle and the trailer are securely braked, the engine is off and the key to the vehicle has been removed.
The following actions will help keep pedestrians and vehicles apart:

- **Entrances and exits** - provide separate entry and exit gateways for pedestrians and vehicles;
- **Walkways** - provide firm, level, well-drained pedestrian walkways that take a direct route where possible;
- **Crossings** - where walkways cross roadways, provide a clearly signed and lit crossing point where drivers and pedestrians can see each other clearly;
- **Visibility** - make sure drivers driving out onto public roads can see both ways along the footway before they move on to it;
- **Obstructions** – do not block walkways so that pedestrians have to step onto the vehicle route; and
- **Barriers** - think about installing a barrier between the roadway and walkway.
Safe Workplace

**On site, establish vehicle routes which:**

- Are segregated from pedestrian routes
- Minimise the need for reversing operations with one-way systems and turning points
- Have firm surfaces, adequate drainage and safe profiles to allow safe vehicle movements
- Are kept clear of obstructions and other hazards
- Avoid hazards such as excavations, edges of structures, and fuel or chemical storage areas
- Are clearly signed with signposts and, where appropriate, road markings
- Have speed limits and speed control measures
Safe Vehicle
Safe vehicle

- Vehicles used in the workplace should be suitable for the purpose for which they are used.
- You should carefully consider the working environment in which a specific vehicle will be used and the suitability of that vehicle for the people using it. Consulting with those who will use it is a key part of developing a vehicle specification.
- The Road Vehicles (Construction and Use) Regulations 1986 set the standard for the design and construction of vehicles used on public roads. Most vehicles used in the workplace should meet this standard, but in some cases there are specific supply standards for mobile plant (e.g., some lift trucks).
- Warning devices such as rotating beacons and reversing alarms are often fitted, and conspicuous painting and marking can be used to make a vehicle stand out to pedestrians.
- Drivers should be able to see clearly around their vehicle, so consider measures such as CCTV and special mirrors where visibility is restricted.
Overturning

To minimise vehicle overturns, site operators and drivers should consider:

- vehicle suitability;
- the condition and slope of the surface;
- the operating speed of the vehicle;
- traffic routes that avoid sharp bends;
- the nature and positioning of the load.

Drivers should be monitored to ensure they follow safe systems of work, eg they are wearing seat belts which should be used even if a roll-over protection system (ROPS) is fitted.
# Plant Suitability

## Plant Selection/Suitability Assessment Record

<table>
<thead>
<tr>
<th>Contract Name:</th>
<th>Contract No:</th>
</tr>
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<tbody>
<tr>
<td>Site Manager:</td>
<td>SHE Manager:</td>
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<table>
<thead>
<tr>
<th>Item of plant (including make &amp; model)</th>
<th>Activities and areas of operation</th>
<th>Limitations of the chosen plant</th>
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<tbody>
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</tbody>
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**Date assessment carried out:**          **Next Assessment Due:**          **Assessment Completed by:**

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**Note:** This form is to be reviewed monthly as a minimum, and assessment is to be carried out by the Site Management representative, with input from the company’s SHE Manager and Plant department where necessary. This form must also be completed, should any item of plant on site be exchanged, a new item of plant arrive, or the activities being carried out change.
Fork Lift Truck
Rear Tipping Dumper
360° Excavator
Working Envelope
Before you enter the ‘Working Zone’ of a machine:

Make sure you’ve got the operator’s attention and their acknowledgement that it’s safe for you to approach the machine!
180° Excavator
Working Envelope!
Telescopic Handler
Forward Tipping Dumper (FTD)
Visibility

Overloading is dangerous.
It can be fatal.
Blind Spots!
Large Goods Vehicles (LGV)
Delivery Vehicle Blind Spots!
Tipping

To reduce incidents where vehicles overturn during tipping operations, site operators and drivers should co-operate with each other and make sure:

- tipping is carried out on level ground;
- the tractor unit and trailer of articulated vehicles are aligned;
- wheel stops are used where possible;
- the tailgate is released and secured before tipping;
- no pedestrians are in the tipping area;
- the vehicle is not left unattended and cab doors are closed;
- there are no overhead obstacles, such as power lines.
**Coupling and uncoupling**

Drivers and those who have overall control of sites (site operators) should make sure that coupling and uncoupling areas are well lit, with firm and level surfaces. Drivers should be properly trained and have their work monitored by site operators to make sure they follow a safe system of work, involving the use of trailer and tractor unit parking brakes as appropriate.
Delivery Vehicles
**Danger Zones!**

*Green Zone:* Driver can see and be seen and is clear of potential falling product.

*Red Zone:* Stay well clear of forklifts, cranes and moving loads.

*Amber - Caution Zones:* If driver must be in these zones then extra care is required to allow for increased risks.

*Red Zone:* Far side from loading is much more dangerous than appreciated.
Drivers should be competent to operate a vehicle safely and receive appropriate information, instruction and training for the vehicle they use. It is particularly important that younger or less experienced drivers are closely monitored following their training to ensure they work safely.

Consider the following:

- **For new recruits**: Recruitment and placement procedures should be in place to ensure all new drivers are competent.
- **For existing employees**: Make sure they have, and continue to have, the skills and experience needed to operate a vehicle safely. If the work changes, drivers should receive the necessary training to carry out the modified task safely.
Training

- Training requirements will depend on an individual’s experience and the training they have previously received. Your risk assessment should help decide the level and amount of training a person requires.

- In general, newly recruited drivers have the greatest training needs but there should also be a programme of reassessment for more experienced drivers.

- It is important to assess the information provided by newly appointed drivers, particularly in relation to their training and experience. They should also be monitored on-site, to establish both their actual level of competence and any further training needs.

- You should keep a training record for each driver. This will help to ensure the most appropriate person is allocated a particular task and identify those requiring refresher training.
Fitness to operate

- A person’s fitness to drive/operate a vehicle should be judged on an individual basis but the aim is to match the requirements of the task with the fitness and abilities of the driver/operator.
Getting it Wrong
Wrong Turn!
Changing Buckets using Automatic Quick Hitch
£1.8m penalty for resurfacing banksman’s death
<table>
<thead>
<tr>
<th>Sentencing guidelines application</th>
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<tbody>
<tr>
<td><strong>Culpability:</strong></td>
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<td><strong>Seriousness of harm risked:</strong></td>
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<tr>
<td><strong>Likelihood of harm:</strong></td>
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<tr>
<td><strong>Harm category:</strong></td>
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<tr>
<td>2, moved up to 1</td>
</tr>
<tr>
<td><strong>Number of people exposed:</strong></td>
</tr>
<tr>
<td>One banksman and around five other workers</td>
</tr>
<tr>
<td><strong>Size of organisation:</strong></td>
</tr>
<tr>
<td>Kier Integrated Services: large. Sean Hegarty: micro</td>
</tr>
<tr>
<td><strong>Turnover:</strong></td>
</tr>
<tr>
<td>Kier Integrated Services: Over £500m cn. Sean Hegarty: unknown</td>
</tr>
<tr>
<td><strong>Penalty:</strong></td>
</tr>
<tr>
<td>Kier Integrated Services: £1.8m plus £12,406 costs. Sean Hegarty: £75,000 plus £12,406 costs</td>
</tr>
</tbody>
</table>
Driver killed by overhead power line strike
Worker fatally crushed between excavator and dumper
Introduction

Every year, there are nearly 3000 accidents involving transport in the workplace. About 60% of these result in people being injured (some seriously), 40% in death or permanent disability.

The main causes of injury are people falling off vehicles, or being struck or crushed by them.

This guidance has been produced for the Health and Safety Executive (HSE) to help people involved in workplace transport reduce the chance of accidents happening. It is mainly aimed at managers but operators and their safety representatives will also find it useful.

Employees have a legal duty to ensure that the health and safety of their employers, workmates and members of the public are not put at risk as a result of the work they do. Employers and the self-employed also have a duty to both offer their own health and safety and find at anyone who might be affected by their work.

What is workplace transport?

Workplace transport is any activity involving vehicles used in the workplace. Vehicles driven on public roads are excluded, except where the criteria for being involved in an accident on a public road applies to a workplace.

Managing workplace transport safety

To manage accidents effectively, there are three key areas to consider when carrying out risk assessment:
- safe site design and access
- safe vehicles
- safe drivers

Safe site – design

Prevention

Every site is different and needs to prevent different hazards and risks. However, a well-designed and maintained site with suitable segregation of vehicles and people will make workplace transport accidents less likely.

The most effective way of ensuring pedestrians and vehicles move safely around a workplace is to provide separate pedestrian and vehicle traffic routes. Where possible, there should also be a zoned system as this will reduce the need for vehicles to reverse and will help pedestrians and drivers.
Any Questions