

Employees' Best Practice Vehicle and Pedestrian Segregation

Clear, Simple, Smart

1	2	3	4	5	6
Control visibility clearance and buffer	Reduce speed and improve driver	Plan a route	Minimise pedestrian travel time	Identify manager responsibility	Post signs markers

Mitigating high consequence hazards

Introduction

The industry operates sites where vehicles and pedestrian interactions involve significant risks if movements are not properly managed and followed.

We have seen from incidents within the industry, that giving employees and contractors as much information and guidance on the risks involved when operating around heavy machinery and vehicles is critical.

This document will describe the variety of traffic, vehicle and pedestrian management plans which when followed appropriately ensures that sites can work safely.

This document has been prepared by the MPA using Best Practice to raise awareness of the subject and to help guide the industry to a safer working environment.



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Understanding 'The Fatal 6'

'The Fatal 6': Section 2 – Workplace transport and pedestrian interface.

19% of fatalities in the industry involve workplace transport, often involving contact with pedestrians.

Every year pedestrians are killed or seriously injured having been hit by mobile plant or other transport operating on a mineral products site. REMEMBER – Every time you are travelling on foot across a site, YOU are a pedestrian so these figures aren't meaningless – they are related to your personal safety. Furthermore, every time you are in control of a vehicle, YOU are a driver and are responsible for the safety, not only of yourself, but of those colleagues working around you.

There are many other simple ways in which YOU can reduce the risk of pedestrian contact such as:

- Following the site traffic rules
- Respecting pedestrian exclusion zones
- Following pedestrian walkways
- Keeping plant fail safe devices and visual aids well maintained
- Sticking to well lit areas when travelling
- Following the signage and warning lights
- Understanding and following risk assessments and safe systems of work
- Monitoring traffic and pedestrian activities and improving protection where you can
- Only use mobile phones in a safe area whilst stationary

'The Fatal 6'

1

Contact with Moving Machinery and Isolation

2

Workplace Transport and Pedestrian Interface

3

Work at Height

4

Workplace Respirable Crystalline Silica

5

Struck by Moving or Falling Object

6

Road Traffic Accidents

Mitigating high consequence hazards

Traffic Management Plans

Every year, there are over 5,000 accidents involving transport in the workplace. About 50 of these result in people being killed (www.hse.gov.uk/statistics). The main causes of injury are people falling off vehicles or being struck or crushed by them in the workplace.

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.

A Traffic Management Plan makes best use of several features to reduce the risk of injury as far as is reasonably practicable. Features such as:

- One way systems
- Entrance signage
- On-site signage
- Exclusion zones whilst tipping
- Vehicle/Pedestrian segregation zones
- Pedestrian walkways
- Safe areas to inspect or clean vehicles, trim loads or sheet and de-sheet

When on site, ensure that you familiarise yourself with these features and work to understand how they are designed to keep you safe. Remember, vehicles and pedestrians are both moving hazards and so you need to stay aware at all times whilst on site.



PPE

PPE is the last line of defence in all hierarchies of safety controls. However, where vehicle and pedestrian traffic is mixed, PPE in the form of High Visibility (Hi-Vis) clothing is essential. As well as ensuring pedestrians can be seen, Hi-Vis clothing is respectful to the drivers as it gives them an added layer of control to assist with hazard spotting.

Drivers always need to be wearing appropriate PPE, as they will often drive onto sites where, should they leave their cabs, they would immediately find themselves in hazardous environments.

There are different approaches to PPE regarding colour schemes and the use of reflective materials, which can be confusing. The MPA endorses research that shows:

- PPE should always provide 360° visibility
- Orange PPE provides greater visibility than yellow
- Reflective strips should be used to enhance visibility in the dark
- Contracting sites may require specific PPE to comply with Highways requirements



Health Fitness to Work

In order to work effectively, it is important that you are in good health. People in poor health can struggle to see their colleagues or may experience problems such as shortness of breath or even strokes/heart attacks whilst in control of a heavy mobile plant or vehicle.

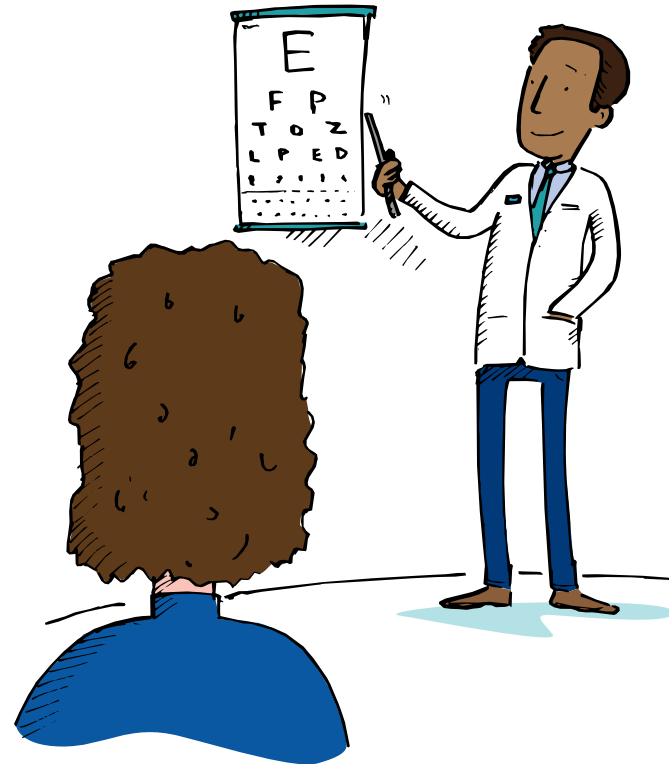
You **MUST** be able to read a vehicle number plate, in good daylight, from a distance of 20 metres (or 20.5 metres where the old-style number plate is used). If you need to wear glasses (or contact lenses) to do this, you **MUST** wear them at all times while driving. The police have the power to require a driver to undertake an eyesight test.

It is recommended that you get your eyesight checked at least annually (six-monthly if a member of the Fleet Operator Recognition Scheme (FORS) or equivalent scheme) to ensure capability to drive legally. FORS requires drivers to pass eyesight checks at 25m.

If you have any health conditions that affect your driving you must advise your employer and inform the DVLA immediately. Failure to do so may lead to your licence being revoked by the Traffic Commissioner.

Some prescription drugs you take may effect your driving. Make sure you inform your manager what medications you take.

All sites in our industry have a zero tolerance to the use of any drugs or alcohol.



Training and Competence

In order to work as safely as possible, it is important that you keep up to date with your personal training. This training is useful for personal development, and refreshes your knowledge on the latest risk assessments, rules and technologies which are designed to keep you and your colleagues safe.

Depending on your role there are a number of training opportunities open to you.

Employees	Contractors	Drivers
MPQC Plant Operator Competency Scheme Vehicle Banksperson Training Construction Skills Certificate Scheme Highways England Passport Scheme Construction Industry Training Board (CITB) Construction Plant Competence Scheme Vehicle Banksperson Training	Quarry Passport Scheme Construction Skills Certificate Scheme Avetta Contractor Prequalification and Compliance Management Highways England Passport Scheme CITB Construction Plant Competence Scheme Partner Operated (POP) Scheme	Drivers Skills Card Mineral Products Qualifications Council (MPQC) Standards Certificate of Professional Competence Vulnerable Road User Vehicle Banksperson Training Safe Urban Driving

Training is one element that makes up competence. Competence takes training and combines it with experience, skills, knowledge and a certain attitude to ensure that everyone working within the industry has everything they need to work safely.



Vehicle Checks

All mobile plant and other vehicles which operate on MPA member sites must be maintained in a safe condition. Carrying out daily safety checks helps us to ensure that this is the case.

The checks must be done as soon as practicable at the start of each shift (or when the vehicle is first put to work that shift). The vehicle operator is responsible for carrying out the checks. Vehicles used constantly should be re-inspected when a new driver takes over the machine. Vehicle checks should be written down and inspection sheets passed to your manager for action if a defect is observed.

It is often difficult deciding what to do when defects are identified. Do I park up the vehicle and not use it? Do I carry on using it and get the defect repaired later?

The answer to this question will depend upon the nature of the defect. Below are some examples to help you decide what to do.

Reportable defects, where the vehicle could safely continue to be operated:

- a small stone chip appears in the windscreen
- wear or minor damage to tyres.

Reportable defects, where the vehicle must be parked up and not used until the defect has been rectified:

- defective seatbelt
- defective brakes (service or parking)
- defective steering
- no audible reverse warning (where fitted)
- no rear view CCTV (where fitted)
- defective mirrors

The list on the opposite page are by no means exhaustive which is why it is important that you follow your first use checks everyday to keep vehicles properly maintained. The operator should be fully aware of site and company procedures with regards to vehicle checks.

'The FATAL 6'

- 1 Defective seatbelts
- 2 Defective brakes
- 3 Defective steering
- 4 No audible reverse warning
- 5 No rear view CCTV
- 6 Defective mirrors

Mitigating high consequence hazards

mpa
essential materials
sustainable solutions

Dirty mirrors & cameras obstruct your view

CLEAN THEM BEFORE YOU MOVE

Vehicle Visibility

It is important that your vehicle can be seen in all environments and conditions. There are a number of different lights and accessories that can be used to ensure this. Several of these lights are mandatory but some are additional features that increase the level of safety

- Warning lights
- Flashing Strobe Lights
- Reversing Lights
- Exclusion Zone Lights
- Hi-Vis Livery
- LED Blind Spot Lights
- Defective rear view cameras and radar systems where fitted
- Convex Mirrors and High Visibility Marking on the machines

These lights all need to be kept clean and well maintained. It is important to check the functionality of all vehicle lights as a part of the vehicle checks.

Good direct vision



Poor direct vision



Pedestrian Routes

Where possible every site will have dedicated pedestrian routes. These routes are in place for both pedestrians and drivers. For pedestrians, they often provide physical barriers to prevent them from coming into contact with vehicles. For Drivers, they provide assurance that the route they are driving along will be free of pedestrians and that they will be safe as long as they follow the rules of the road.

- As a general rule, if the pedestrian route is alongside a roadway and there is no kerb, the pedestrians must be segregated by a robust physical barrier made of material designed to prevent the pedestrian being injured, such as steel or concrete. You can also use rocks or other materials if they are more appropriate.
- If the pedestrian route is within a traffic route and there is a kerb, then robust steel fencing or a handrail will be adequate
- Bunds may be used as a physical means of segregation; however they must be suitable for the largest vehicle accessing the traffic route
- If the pedestrian route is away from a traffic route, then alternative suitable fencing can be used.
- All signage must be clean and clearly indicate the direction both vehicles and pedestrians should follow. The signage should conform to Road Traffic Act specifications so avoid home made versions as they may confuse.
- Self closing inward opening gates on pedestrian routes where the pathway crosses vehicle traffic routes are best practice.

As a pedestrian, it is important that you stay within the pedestrian routes and do not defeat the barrier designed to protect you. Walkways, where present **MUST** be used and unsafe behaviour challenged.

VEHICLES & PEDESTRIANS don't mix!



First Move Forward

Operating heavy equipment or a motor vehicle is inherently a hazardous task, however, reversing creates more risk for incidents to occur. All too often unnecessary reversing is responsible for injuries and property damage incidents. With increased blind spots, reversing leaves drivers and operators at more risk for error resulting in damage or injury.

The single best way to prevent reverse-related incidents is to eliminate reversing as much as possible. Most work areas and tasks can be set up in such a way that backing up is not necessary. Preplanning of movements is another way to eliminate unnecessary reversing.

- If you need to reverse after being in a fixed position, complete a walk around of your vehicle. This allows you to be aware of what is in your blind spots prior to making a move.
- Clean the lens of and use backup cameras on equipment and vehicles. Ensure the reversing alarm is working if so equipped
- Follow any one way systems that are in place. These are designed specifically to remove any need for a vehicle to reverse on site.
- Wherever possible make use of a competent Traffic Marshall.



Vehicle Exclusion Zones

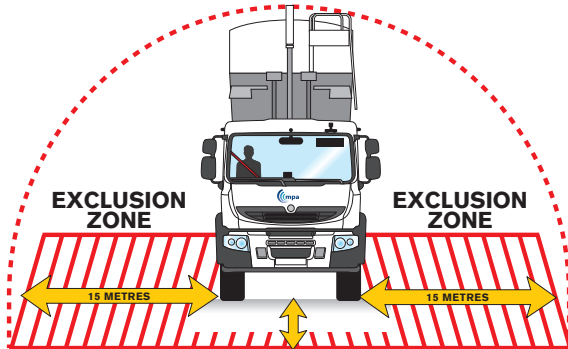
When making deliveries, all drivers should be managing the space around them and maintaining an exclusion zone to avoid anyone entering this area. If you are delivering and have any safety concerns, please advise the site staff as well as your MPA member contact, and complete a Near Miss/Hit/Hazard Observation Form.

DO - Keep vehicles and people apart

DO - Ensure people are kept a safe distance from discharging vehicles

DO - Apply **MYSPACE** principles

REMEMBER Myspace is all about keeping vehicles and people separated. If YOU see any person in close proximity to a vehicle tipping or moving, like a reversing road sweeper for instance, challenge the process, ask question about how we could make it safer. And finally **CHALLENGE** any unsafe behaviour.



// **YOUR**
MYSPACE
ADHERE TO IT
AND KEEP
YOUR WITS
ABOUT YOU

"LOOK AFTER YOURSELF,
LOOK AFTER EACH OTHER."

MYSPACE
MAKE SURE IT'S SAFE

Please ensure that you report all accidents or incidents.

If you see anything on your sites or customer sites that you think is unsafe, it is okay to Stop and Report it as a Near Miss.

'The FATAL 6'

1

Contact
with moving
machinery
and isolation

2

Workplace
transport and
pedestrian
interface

3

Work at
height

4

Workplace
Respirable
Crystalline
Silica

5

Struck by
moving or
falling object

6

Road Traffic
Accidents

Mitigating high consequence hazards



essential materials
sustainable solutions

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