



People & Plant Interface Stand-up





Please beware that there are 2 videos in this presentation which contain descriptions of real incidents and the injuries which were sustained.

If this is a concern, please feel free not to watch the videos.



WHY IS THE INTERFACE WITH PLANT A CONCERN?

HSE findings tell us that each year in the UK approximately fifty people die as a result of being struck by moving plant and ten of these are within the construction industry.

In addition, there are hundreds of preventable accidents and injuries, and thousands of near misses.

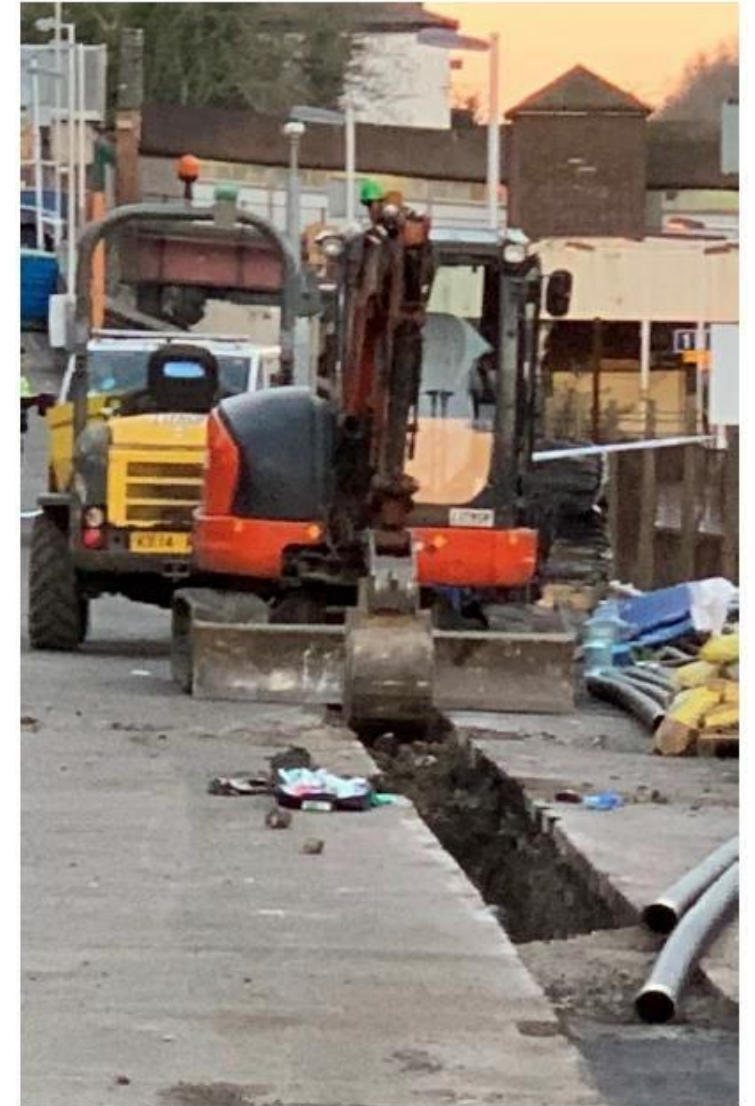


CLOSER TO HOME...

March 2020

A operative suffered a fractured femur when a dumper reversed too close to the trench he was working in and fell in on him.

This happened because the site set-up and subsequent safe system of work didn't keep people and plant apart.





WHY WE NEED TO BE CONCERNED...



A Plant Operators Story Balfour Beatty A46 project



WHAT IS PEOPLE & PLANT INTERFACE?

There are 3 main definitions relating to PPI to consider, which are:

- **People & Vehicle Interface (PVI)** - The interaction between people and moving or stationary vehicles both on and off site.
- **People & Plant Interface (PPI)** - The interaction between people and moving or stationary plant (In construction, plant typically refers to heavy machinery and large equipment used on construction sites – Mobile Plant, think cranes, piling rigs, excavators, bulldozers and FLT etc).
- **Workplace Transport** - Any activity involving vehicles used in a workplace and includes any vehicle that is being loaded or unloaded on a public road adjacent to a workplace.



WHO IS AT RISK?

Anyone involved in the construction process from groundworks to finishing works including:

- Managers;
- Workers;
- Visitors to sites;
- Delivery drivers;
- Members of the public.

They can all be at risk if construction plant and vehicle activities are not properly managed and controlled.



WHAT ARE THE RISKS TO YOU?

The main risks that you will be exposed to with regards to your interface with plant machinery include:

- Being run over, crushed or struck by plant or vehicles;
- Being struck by something falling from plant or vehicles;
- Falling off plant or vehicles;
- Overturning Plant or vehicles.



WHAT ARE THE RISKS TO YOU?



Battersea - Pinch Point & Parking Near Misses



HOW CAN YOU MINIMISE THE RISKS?

We believe that there are 3 main elements to consider to manage the risk from PPI and these are:

- 1. Safe People** – competence, capability and behaviours of plant operators and those working near them.
- 2. Safe Plant** – specifying the right plant for the job rather than what is available in the site compound and pre-use checks. NOTE: If used correctly plant and equipment positively contributes to the reduction in risks to construction workers;
- 2. Safe Site (inc. Safe Systems of Work)** – planning activities and the site layout to control & manage work activities involving plant, and putting people to work well;



SAFE PEOPLE

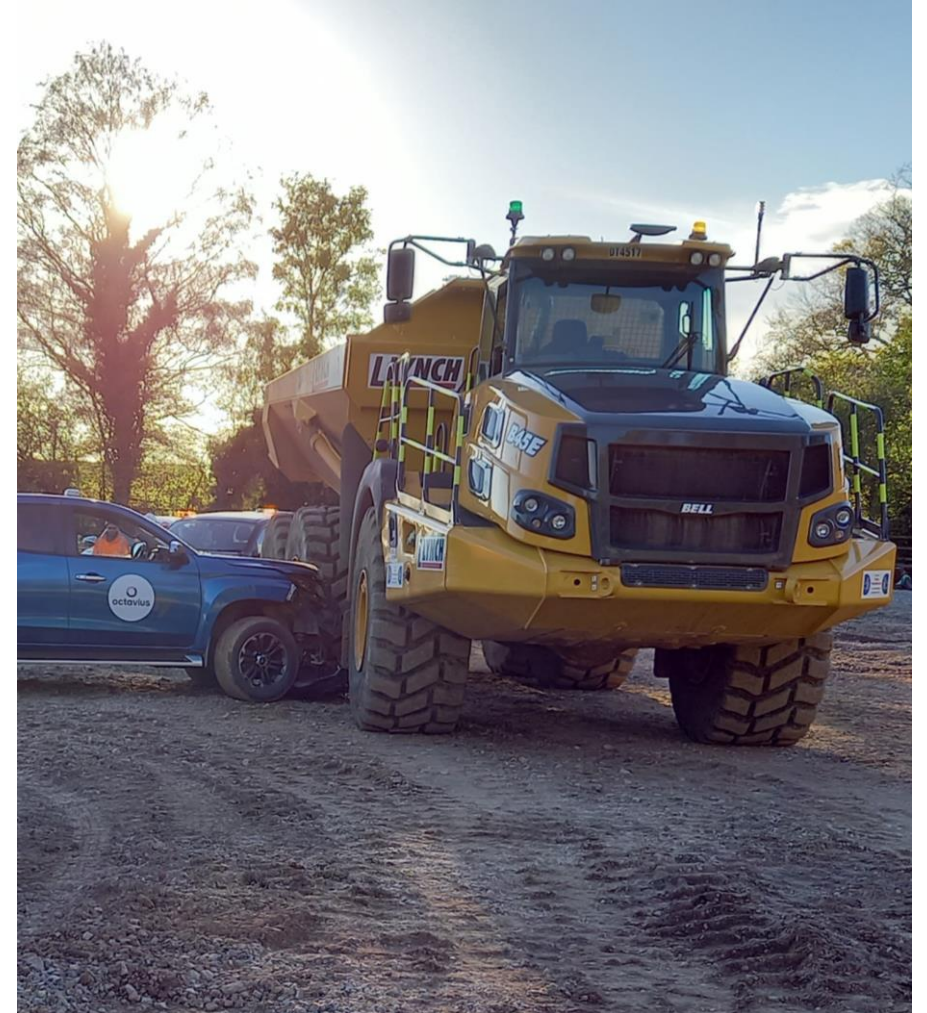
- All plant operators must be trained. Any specified training criteria must be evidenced – for example, CPCS for plant, IPAF for MEWPs
- Have had familiarisation training;
- Use trained signallers/banksman (where deemed required by Risk Assessment) to control plant/vehicle manoeuvres;
- Operate plant safely and efficiently, wearing seatbelts at all times;
- Operate at a safe speed & in accordance with site working and environmental conditions;
- Remain in full control of the equipment or vehicle at all times and ensure you switch off the machine and remove the keys when you dismount the cab for any reason;



SAFE PLANT

The following general restrictions apply to the use of plant and equipment (further specific controls must be in place for specialist applications):

- Keep mirrors, camera lenses and other visibility aids clean at all times;
- Report defects of work equipment to supervisor immediately upon discovery;
- Carry out daily and weekly checks of plant and maintain records;





SAFE SITE

- Create exclusion zones
- Separate workforce/pedestrians from vehicle/plant movements by means of suitable barriers, fencing, clearly marked pedestrian routes with firm, level well drained ground;
- Avoid reversing movements by utilising One-Way systems for vehicle routes or construct turning circle bays;
- Set appropriate speed limits for the routes on your site. Sign the limits clearly and consider using physical measures to restrict speeds (eg road humps/chicanes);
- At site exits and pedestrian route crossing points ensure both parties have good visibility of each others movements (Use mesh or Heras instead of hoarding) and clearly sign locations warning both of crossing point and hazards (Pedestrian/Heavy Plant crossing);





PLANT EXCLUSION ZONES

Safe zones called plant exclusion zones are applicable to a range of plant and machinery used on sites

REMEMBER!

- Anyone approaching plant must make eye contact with the operator and wait until signalled with a thumbs up
- Operators must ensure that any safety levers are activated, buckets are lowered and machines are switched off before people approach

Give the Thumbs Up!



Bucket/Load grounded!
Get the Thumbs Up!
Then Approach!



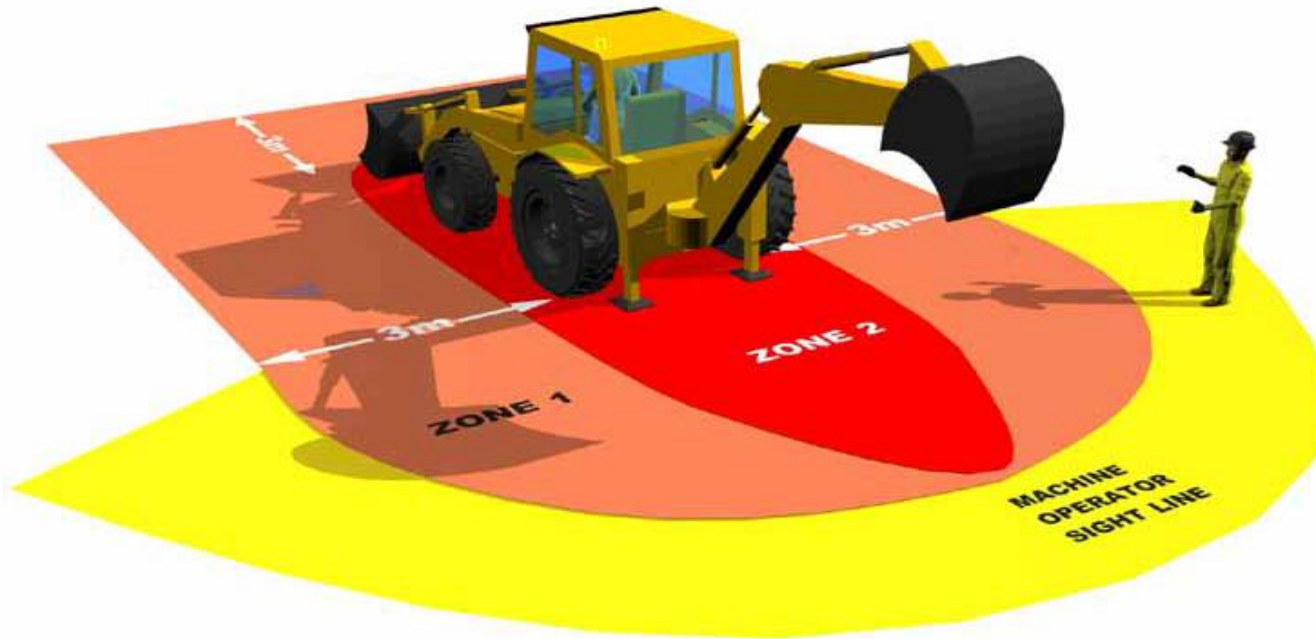
PLANT EXCLUSION ZONES

The following slides show the various items of plant used on our sites and the applicable exclusion zones

Zone 1	Always signal the plant operator and receive a positive response before entering this zone
Zone 2	KEEP OUT OF THIS AREA AT ALL TIMES
	Area within operators line of sight – stand in this area to attract operators attention

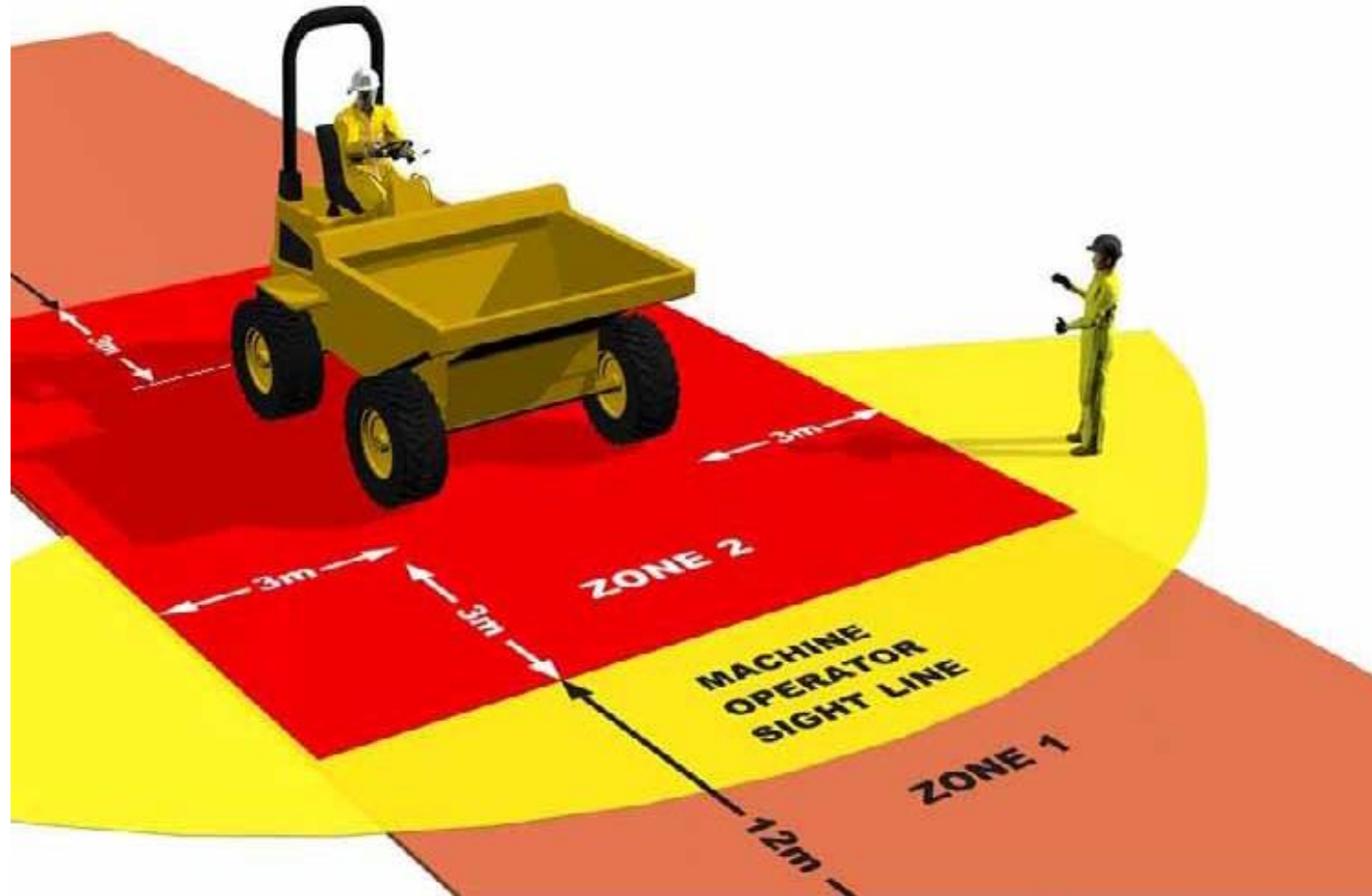


180° Excavator/loader



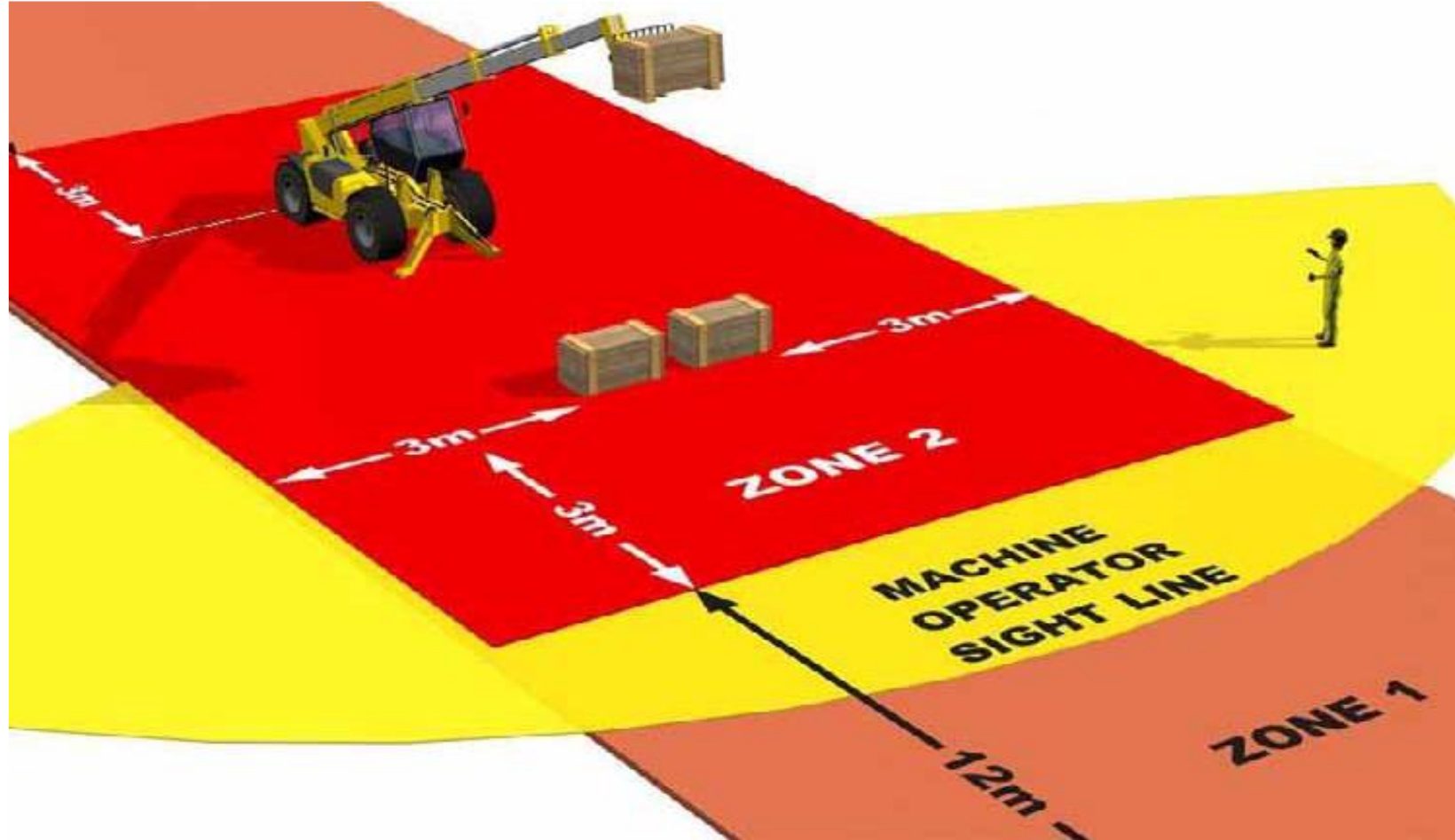


Forward Tipping Dumper



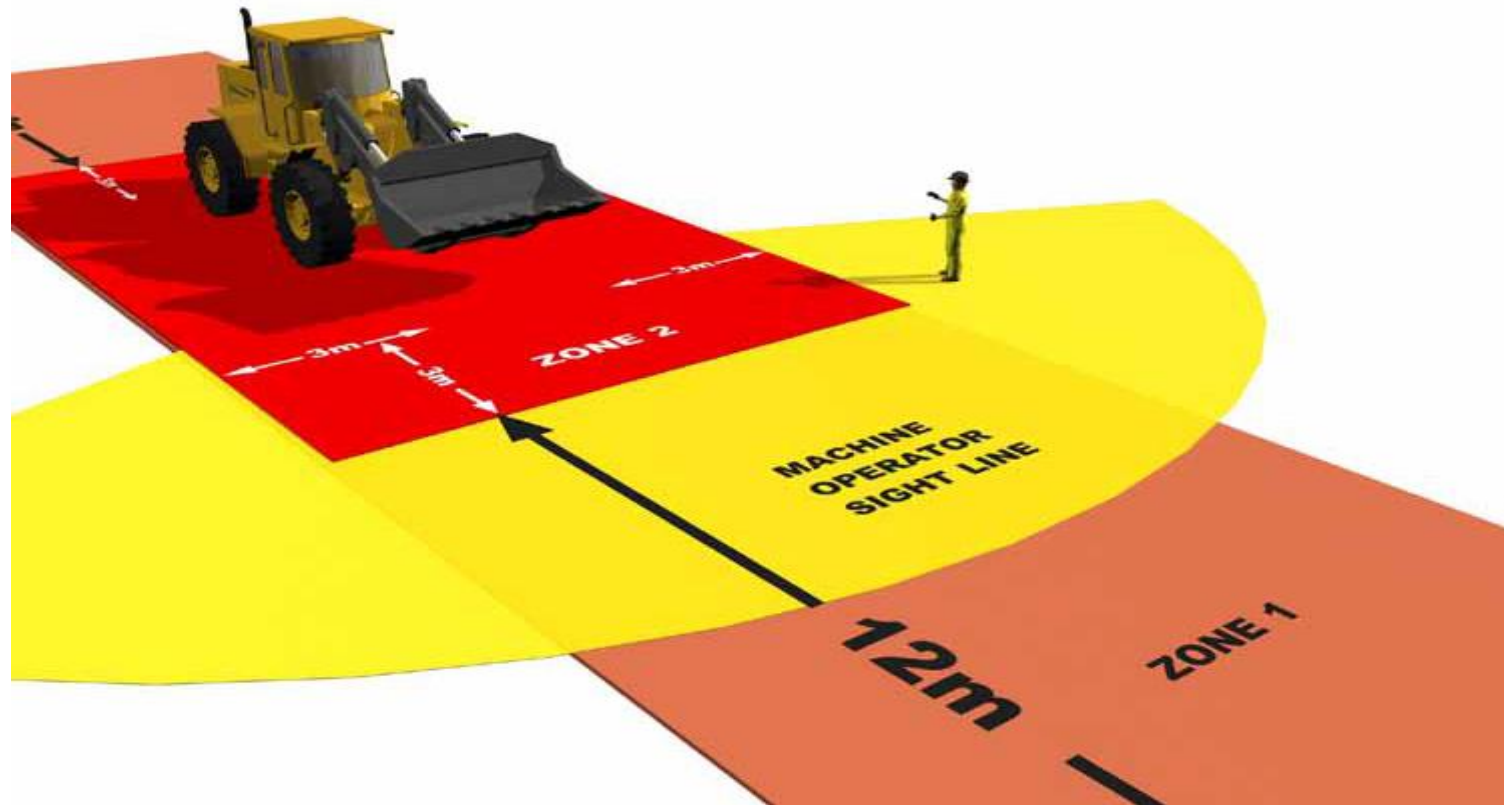


Telehandler



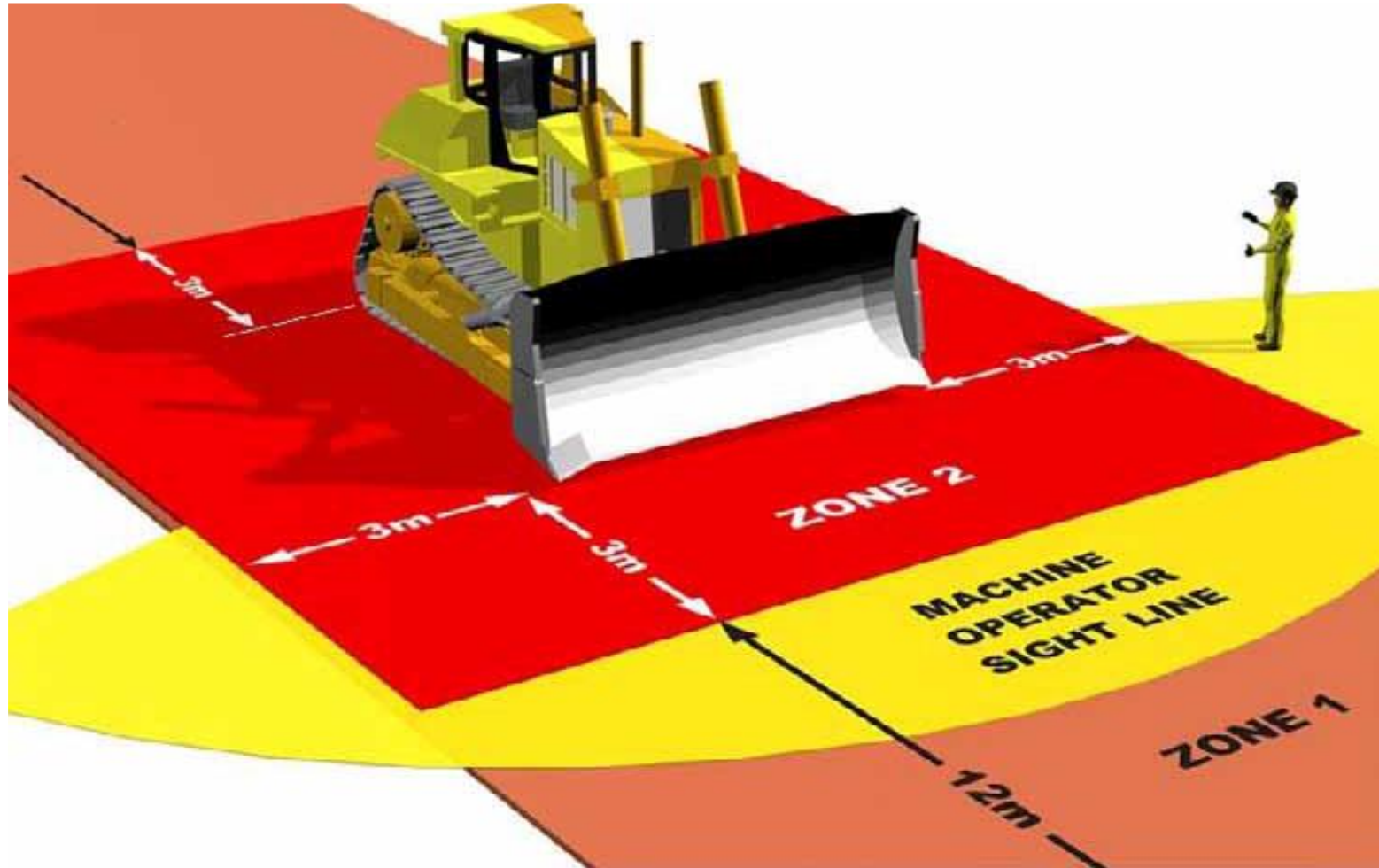


Wheeled Loading Shovel



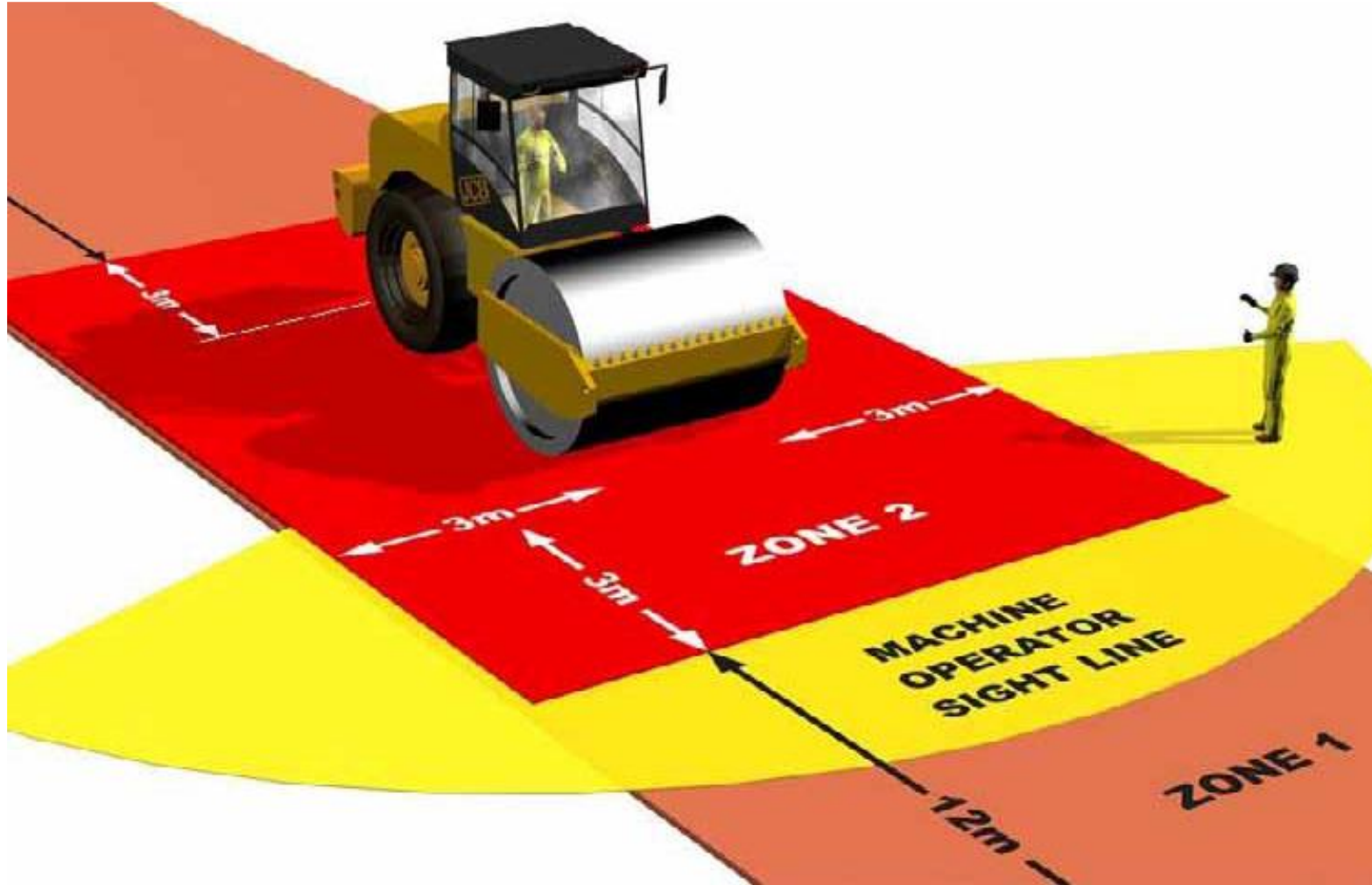


Tracked Dozer





Ride-on Compaction Roller





FURTHER SOURCES OF INFORMATION:

1. National Highways Common Intent Document – Safe working with Plant <https://www.highwaysafetyhub.com/safe-working-with-plant.html>;
2. National Highways Raising the Bar 3 – Plant Person Interface https://www.highwaysafetyhub.com/uploads/5/1/2/9/51294565/b3_plant_person_interface_march_2021.pdf;
3. HSE Website - <https://www.hse.gov.uk/construction/safetytopics/vehicletrafficmanagement.htm#keeping>.



FOLLOW UP TO THIS CAMPAIGN LAUNCH...

Over the course of upcoming months following this stand-up session a series of toolbox talks, posters and bite-size will be issued.

Each of these sessions will focus on the subjects of

- safe people
- safe plant
- safe site.



AND FINALLY...



Jamie's Story - Struck by a Dumper on A14



Thank you for
taking part!

Any questions?