

FATAL AND SEVERE RISK PROGRAM

LEADER SESSION

STRUCK BY MOBILE PLANT

ARTC

**STOP
& THINK**
Only do the task if it can be done safely



STRUCK BY MOBILE PLANT

**OUR
COMMITMENT**

**LIFE
SAVING
BEHAVIOUR:**

**I WILL ALWAYS STAY
CLEAR OF MOBILE PLANT
EXCLUSION ZONES UNLESS
I HAVE BEEN AUTHORISED
TO ENTER**

NO HARM – LINE IN THE SAND



INTRODUCTION

The rail corridor and ARTC workplaces can expose workers to risks such as being struck by mobile plant.

This booklet provides clear information about the risks and controls associated with working around plant.

It is part of a series of booklets about the fatal and severe risks present when working for ARTC.



KEY FACTS AND STATISTICS

Being Struck by Mobile Plant, such as forklifts, elevated work platforms, excavators, loaders, graders, backhoes and cranes has the potential to cause serious injury or result in fatalities.

MOBILE PLANT IS CLASSIFIED AS HIGH RISK BECAUSE OF THE POTENTIAL CONSEQUENCE SUCH AS:

- Being crushed by mobile plant (reversing, pinned against, roll overs).
- Injuries when hit by moving plant (swing zones, pinned against, falling or carrying load).

729
LTI's

2015-16

ACCORDING TO PRELIMINARY DATA, 729 MOBILE PLANT RELATED LTI'S WERE RECORDED DURING 2015-16



Fourteen work-related fatalities were known to be associated with mobile plant during the period 2011–12 to 2015–16 (2.8 deaths per year on average).

14  **FATALITIES**

The most susceptible occupations to this type of injury (in order of magnitude) during the five year period from 2011-12 to 2015-16 were:

MINER

TRUCK DRIVER

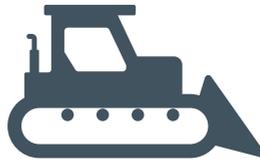
(General)

FITTER (General)

MOBILE PLANT OPERATORS nec

LOADER OPERATOR

36%



OF THE MOBILE PLANT INCIDENTS REPORTED DURING 2015-16, OVER A THIRD (36%) RESULTED IN 60 DAYS OR MORE LOST FROM WORK

Three work related fatalities involving mobile plant were notified to WorkSafe during 2015-16

3



FATALITIES

WORKSAFE. WWW.COMMERCE.WA.GOV.AU

ARTC

CASE STUDY RECYCLING DEPOT



VEHICLE OPERATOR STRUCK

A Melbourne waste recycling company has been convicted and fined \$450,000 over the death of an employee who was struck by the bucket of a 20 tonne front end loader.

Resource Recovery Victoria Pty Ltd ('RRV') pleaded guilty in the County Court of Victoria on 31 March 2015 to two offences under the Occupational Health and Safety Act 2004 for failing to provide a safe system of work and failing to provide information, instruction or training.

RRV operated a waste recycling depot in Braeside in which dump trucks, heavy machinery, smaller vehicles and staff on foot all worked in close proximity of each other.

On 4 October 2013, an employee was driving a small sweeper vehicle in an open air shed used for dumping and sorting waste materials.



Another employee was also in the shed, operating a 20 tonne Hitachi front end loader to move dirt and rocks up a small ramp into a hopper.

The court heard that after the front end loader emptied a load of material into the hopper, the operator reversed the machine back down the ramp and lowered its bucket to about one metre above ground level.

Just after the machine began to move forward, the operator felt a bump on the bucket. When he reversed, he saw his colleague slumped in the sweeper vehicle with fatal injuries.

The court was told that the depot was a busy workplace with trucks dumping materials, heavy excavators and front end loaders sorting and clearing materials and staff on foot all working in close proximity to each other.

While new employees were given safety pamphlets to read, the court heard there was no written induction at the site and training was informal and 'on the job'.

The court was also told that:

- There was no documented procedures for traffic management at the time of the incident. Instead, employees relied on common sense.
- There were no signs or lines in the yard area to determine where trucks, front end loaders or the company's street sweepers could or couldn't go, nor were there alarms, lights or barriers.

- Training in relation to all the machines used in the depot was verbal.
- There had been a number of injuries and near misses involving employees and machines over recent years that had not been reported.

Executive Director of Health and Safety, Len Neist, said the company had failed its responsibilities to keep workers safe.

'A comprehensive – and communicated – traffic management plan is critical in workplaces where employees are required to work in close proximity to heavy machinery and vehicles. Simply hoping workers will stay away from heavy machinery is just not good enough,' Mr Neist said.

'All employers must ensure workers are properly inducted to their worksite and competently trained on how to use the equipment they're operating. Expecting workers to just learn on the job is fraught with peril.

The tragic circumstances of this matter and the failings of RRV to keep its workers safe should serve as a reminder to all employees to put the utmost importance on workplace safety.'

Reference:
WorkSafe Victoria
– Incidents & Prosecutions

CASE STUDY RECYCLING DEPOT

LESSONS

1

Mobile plant operators should be trained and instructed on the safe use of all mobile plant.

2

Train and instruct workers and visitors accessing all site areas.

3

Safe systems of work should be implemented to ensure that people are not exposed to risks by working in the vicinity of mobile plant – e.g. establishing an exclusion zone when the mobile plant is in use, restricted areas and clearly defined walkways.

4

Tool box meetings are one way for supervisors and workers to discuss traffic management procedures or raise any other work health and safety issues.

5

Clear communication from both operator and traffic around plant needs to be clear, consistent and precise.



WHAT IS A 'MOBILE PLANT EXCLUSION ZONE'?

An area that has been set up to identify the no go operating zone of mobile plant (minimum 5 metres).

Methods for establishing exclusion zones must be identified as part of the Work Method Statement and Pre-work brief.

Exclusion zones should be identified by visible bollards or signage.



'KEEP OUT OF EXCLUSION ZONES UNLESS AUTHORISED'

WHAT DOES 'AUTHORISED TO ENTER EXCLUSION ZONE' MEAN?

Only the plant operator is to enter the exclusion zone unless:

- Visual and positive contact is maintained with the operator while the worker is in the zone.
- The mobile plant is stopped and implements are on the ground.
- The supervisor gives clear permission for the worker to enter the exclusion zone as per the WMS and Pre-work brief controls.



**'IF YOU ARE NOT REQUIRED TO BE IN THE
EXCLUSION ZONE, GET OUT'**



WHO CAN OPERATE MOBILE PLANT?

WORKERS THAT ARE

Assessed as meeting the ARTC Rail Industry Worker competency requirements to safely operate the mobile plant/equipment for the purpose for which it was designed.



WORKERS WHO ARE

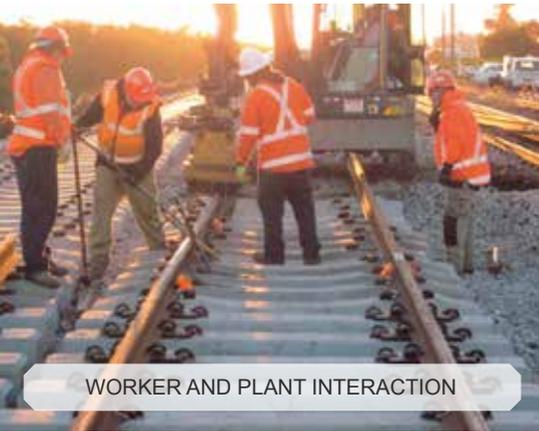
Responsible to safely operate the mobile plant in accordance with the relevant Mobile Plant Work Method Statement.

'ONLY OPERATE EQUIPMENT THAT YOU ARE TRAINED AND AUTHORISED FOR'

STOP & THINK

OUR LAST LINE OF DEFENCE WHEN IT COMES TO MANAGING OUR RISKS

HAZARDOUS SITUATIONS



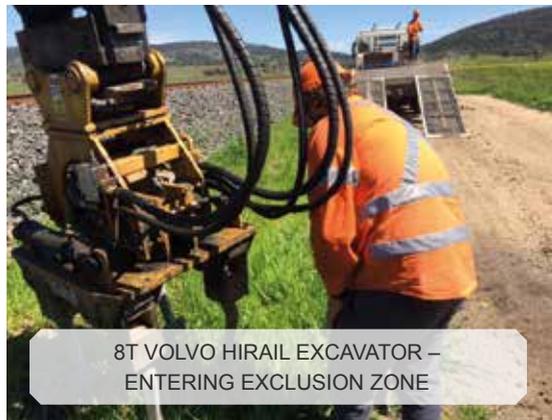
WORKER AND PLANT INTERACTION



CAN THE OPERATOR SEE YOU?



SAFE POSITION?



8T VOLVO HIRAIL EXCAVATOR – ENTERING EXCLUSION ZONE



STOP & THINK

OUR LAST LINE OF DEFENCE WHEN IT COMES TO MANAGING OUR RISKS

EFFECTIVE CONTROLS



SAFETY PINS ENGAGED



EXCLUSION ZONES



PRE-START CHECKS



PLANT SPOTTER

STOP & THINK

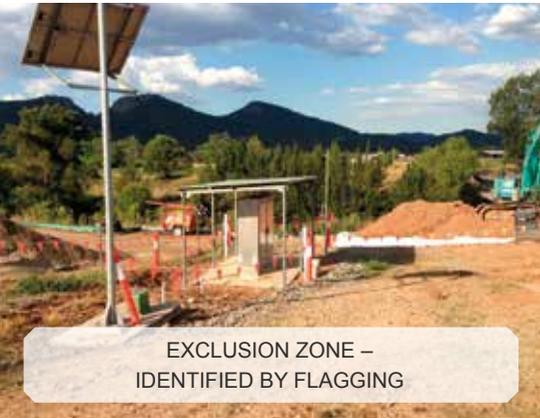
OUR LAST LINE OF DEFENCE WHEN IT COMES TO MANAGING OUR RISKS

MANAGING RISKS – WHAT CAN I DO?

Always ensure adequate supervision is provided where mobile plant is being used.

Always establish and keep out of exclusion zones unless authorised to enter.

Always maintain visual and verbal contact with the plant operator when authorised to be in the exclusion zone.





KEY ACTIONS

WORK METHOD AND PROCEDURES

Work Method Statements – Using Mobile Plant (Fixed Site), Using Mobile Plant (Linear Sites) and Using Mobile Plant (Maintenance Site):

- **Plan the work**, access route is safe.
- **Plant supervisor allocated and present** whenever plant is operational.
- Set up **suitable visible exclusion zones** (min 5m).
- **Control workers entering the exclusion zone**.
- **Confirm visual and verbal communications**.
- Need for **spotters**.
- Operators **not to use mobile phones**.
- **Safe parking** and mobile plant **security arrangements**.

TRAINING

- **Competent and authorised**.
- Relevant **high risk work licence**.
- **Trained** in the **correct use of PPE**.

PLANT AND EQUIPMENT

- **Fit for purpose** for intended use.
- **Pre-start inspections** completed.
- **Warning devices** checked.
- Not to use **defective equipment**.
- No **unauthorised** modifications.

REFERENCE DOCUMENTS

AVAILABLE ARTC PROCEDURES AND PROCESSES

Plant and Equipment Work Method Statements:

- WHS-WI-002 – Loading/Unloading
- WHS-WI-003 – Servicing/Refuelling
- WHS-WI-010 – Vehicle Recovery
- WHS-WI-131 – Using Mobile Plant (Fixed Site)
- WHS-WI-133 – Using Mobile Plant (Maintenance Site)

EPP-32-09 Plant Fit for Service Guideline

EPP-32-03 General Plant Requirements

EPP-3202F-02 Plant Inspection Requirements

EPP-3202F-03 Daily Plant Record Book

EPP-3202F-05 On-site Plant Inspection Report

EPP-32-02 Plant Maintenance Procedures

AUSTRALIAN STANDARDS, CODES OF PRACTICE AND INDUSTRY REQUIREMENTS

Managing the risks of plant in the workplace code of practice July 2014

General guide for working in the vicinity of overhead and underground electric lines (Safe Work Australia)



ARTC



FURTHER INFORMATION

If you require any further information, discuss with your supervisor or contact the ARTC safety adviser for your location.

Information sources:

- WorkSafe, Commerce
- WorkSafe Victoria, Incidents & Prosecutions

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