

# WELCOME

TRACK WORKER STRUCK BY A PASSENGER TRAIN: SHARED LEARNING

## LAVERTON INCIDENT PLANNING WORKSITE PROTECTION

TOOLBOX 2



MetroSafe



### OBJECTIVE

To welcome and clarify the goal of the session.

As we talk about planning worksite protection today, we will focus on the importance of this and discuss the process required to ensure that we can reach our goal of Zero Harm.

### WELCOME

Today's session is the second in a suite of ten Toolbox Talks (TBT's).

Today's session focuses on the planning of worksite protection:

- What it is
- Who plans it
- When you require it

Housekeeping rules – Phones off, duration of session (approximately 25 minutes).

Link to our goal of Zero Harm. **(What does this mean to the group?)**

### WHY WE ARE HERE

Emphasise – Safety Starts with us. Everyone is responsible for ensuring that the safest working environment is created and maintained while performing all tasks in the rail environment.

Emphasise – Safety starts with each one of us. Safety is an attitude that should be adapted to all aspects of our lives, not just when we are at work.

Encourage to always Speak up for Safety – recognise and call out unsafe behaviours and situations.

# OUR SAFETY PLEDGE

## LAVERTON INCIDENT: PLANNING WORKSITE PROTECTION

# OUR SAFETY PLEDGE

AS A RAIL SAFETY WORKER (RSW), I HEREBY PLEDGE TO ACKNOWLEDGE AND UNDERSTAND THE PLANNING AND IMPLEMENTATION OF THE REQUIRED WORKSITE PROTECTION PRIOR TO ENTERING THE RAIL CORRIDOR.

ZERO HARM

## OBJECTIVE

To clarify and emphasise our Safety Pledge and ensure participant understanding.

## READ

As a Rail Safety Worker (RSW), I hereby pledge to acknowledge and understand the planning and implementation of the required worksite protection prior to entering the rail corridor.

## DISCUSS

Pose question to group:

- Why is the identification of hazards important in regards to planning the level of worksite protection required?

Ensure you discuss:

- All participants understanding of what worksite protection is
- Link back to how we can recognise and speak up if we think the level of worksite protection is inadequate – i.e. if conditions change and the Position of Safety (POS) is no longer reachable or accessible within 10 seconds

## INTRODUCTION

Work activities occur in the Rail Network every day. Worksite Protection is a crucial part of the planning phase to ensure the safety of all RSW's.

This booklet provides clear information about the importance of Planning Worksite Protection and how it related to the Laverton incident.

This is the second of ten toolbox talks created to share learnings with industry.



## OBJECTIVE

To set the tone and introduce the concept and importance of planning worksite protection.

## READ

**Work activities occur in the Rail Network every day. Worksite Protection is a crucial part of the planning phase for the safety of all RSW's.**

## DISCUSS

Ask group to **provide the definition of a hazard**.

- Ensure understanding: a hazard is something that has the potential to cause harm, injury, damage or death.

Link to: one of the biggest hazards we have in the network is the hazard of the trains.

- Planning worksite protection ensures that the work we need to complete in the rail network can be done in the safest manner possible while excluding, controlling or providing early warning of approaching rail traffic.

Link back to the importance of having the required level of **worksite protection in place before the works commence**.

LAVERTON INCIDENT: PLANNING WORKSITE PROTECTION

RELATED  
STATISTICS

The Australian Transport Safety Bureau (ATSB) identified 1,779 safe work on track occurrences between July 2009 and July 2014. Of these occurrences, the most common events exposing track workers to highest risk were:

THE TYPE OF  
PROTECTION BEING  
INSUFFICIENT OR  
INCORRECT

581  
OCCURRENCES

33%

THE INCORRECT  
POSITIONING OF  
THE WORKSITE  
PROTECTION

267  
OCCURRENCES

15%

ZERO HARM

OBJECTIVE

To demonstrate understanding of safe working incidents that occurred in the rail network.

DISCUSS

Between July 2009 and July 2014, 1,779 safe working incidents were reported out on track Australia wide.  
***Demonstrate that this is nearly one per day.***

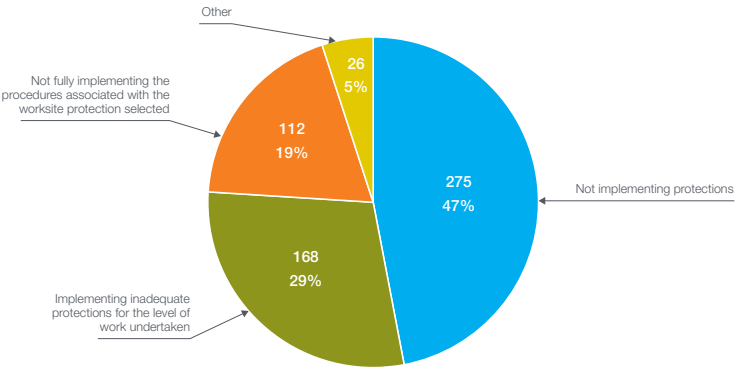
- 33% of these incidents were due to the type of protection being insufficient or incorrect
- 15% were due to the incorrect positioning of worksite protection

Ensure you discuss:

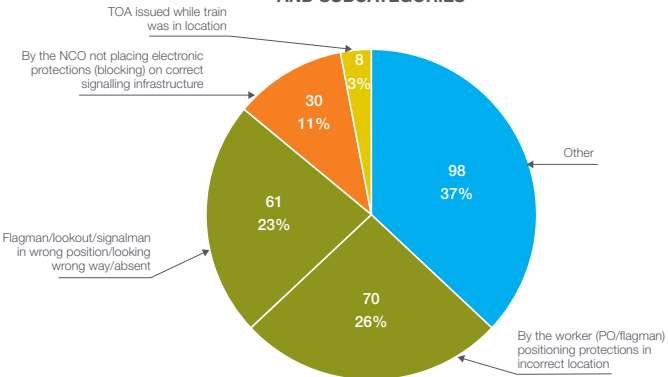
- What sort of hazards could exist due to incorrect protection?
- What would they do if the they thought the protection was not adequate?

Use pie charts for emphasis.

PROTECTION TYPE INSUFFICIENT/INCORRECT  
AND SUBCATEGORIES



PROTECTION INCORRECTLY POSITIONED  
AND SUBCATEGORIES



SOURCE: AUSTRALIAN TRANSPORT SAFETY BUREAU (2017), SAFE WORK ON TRACK ACROSS AUSTRALIA, ANALYSIS OF INCIDENT DATA, 2009 - 2014  
[HTTPS://WWW.ATSB.GOV.AU/MEDIA/5773636/RI-2014-011\\_FINAL.PDF](https://www.atsb.gov.au/media/5773636/ri-2014-011_FINAL.PDF), P. 11-12



### LAVERTON INCIDENT: PLANNING WORKSITE PROTECTION

# LAVERTON INCIDENT SUMMARY

## TRACK WORKER STRUCK BY A PASSENGER TRAIN

On the morning of Friday 2 October 2015, a workgroup was assembling track-side in Laverton, Victoria. They planned to undertake dog spike removal works in preparation for re-sleepering of a section of track on the Altona Loop Line.

At around 0910, the supervisor for the works commenced marking the track to identify those dog spikes to be removed. He was working in a track crossover about 400 meters on the Melbourne side of Laverton Railway Station. A lookout had been placed for his protection.

At about 0916, a Metro Trains Melbourne suburban commuter train arrived at Laverton station, bound for Flinders Street Station in central Melbourne. After its scheduled stop, the train departed Laverton and approached the worksite. The lookout observed the train, warned workers of its approach and signalled to the driver that the track was clear. However, as the train took the crossover, the supervisor was foul of the track, and was struck by the train that was travelling at about 59 km/h. The supervisor suffered serious injuries.

## OBJECTIVE

To provide the required background knowledge in regards to the Laverton Incident of 2015 and how it links to the planning of worksite protection.

## READ

On the morning of Friday 2 October 2015, a workgroup was assembling track-side in Laverton, Victoria. They planned to undertake dog spike removal works in preparation for re-sleepering of a section of track on the Altona Loop Line.

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Summarise:

1. In late 2015, a track worker was struck by a passenger train while performing work in the rail network. This occurred due to several safe working and communication errors.
2. The supervisor suffered serious injuries as a result of this incident. One of the factors that contributed to this terrible accident was the insufficient planning and implementation of the required worksite protection prior to the works commencing.

## SHARED LEARNINGS - PLANNING WORKSITE PROTECTION

2

The TFPC must conduct a Rail Safety Pre-Work Brief with the Protection Team and the Work Group Supervisor (WGS) prior to works commencing. It is the responsibility of the WGS to ensure all members of the workgroup understand the intended worksite protection to be used.

3

The TFPC must implement the worksite protection prior to authorising the Rail Safety Workers (RSW's) to commence work.

1

The Track Force Protection Coordinator (TFPC) must complete a Rail Safety Worksite Hazard Assessment (RSWHA) to assess the level of worksite protection required prior to works commencing.

4

All RSW's must attend and sign the relevant Pre-Work Brief prior to works commencing. This is to ensure they have a clear understanding of the worksite protection limits, hazards and controls in place for their safety.

5

All RSW's must clearly understand the Emergency Evacuation Procedures, Position of Safety (POS) and the audible warnings that will be used to alert of the approach of rail traffic.

## OBJECTIVE

Introduce the concept of 5 key learnings around the importance of planning worksite protection.

## READ AND CLARIFY

Read out each point and then discuss the following before moving onto the next point:

1. **The Track Force Protection Coordinator (TFPC) must complete a Rail Safety Worksite Hazard Assessment (RSWHA) to assess the level of Worksite Protection required prior to works commencing.**

Ensure the definition of RSWHA is provided:

The Rail Safety Work Site Hazard Assessment is an assessment of the Rail Safety hazards to determine the method/level of protection requirement for a worksite.

2. **The TFPC must conduct a Rail Safety Pre-Work Brief with the Protection Team and the Work Group Supervisor (WGS) prior to works commencing. It is the responsibility of the WGS to ensure all members of the workgroup are clear on the intended protection to be used.**

Ensure the definition of Rail Safety Pre-Work Brief is provided:

Is a formal briefing on the worksite protection arrangements provided by the TFPC to all RSW's associated with the worksite protection and the WGS.

Ensure you emphasise that the **accountability is on the WGS** to ensure the all members of the workgroup are clear on the level of protection being used.

3. **The TFPC must implement the worksite protection prior to authorising the RSW's to commence work.**

The TFPC is **accountable** for ensuring all aspects of the worksite protection are in place prior to authorising works to commence.

## SHARED LEARNINGS - PLANNING WORKSITE PROTECTION

2

The TFPC must conduct a Rail Safety Pre-Work Brief with the Protection Team and the Work Group Supervisor (WGS) prior to works commencing. It is the responsibility of the WGS to ensure all members of the workgroup understand the intended worksite protection to be used.

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All RSW's must clearly understand the Emergency Evacuation Procedures, Position of Safety (POS) and the audible warnings that will be used to alert of the approach of rail traffic.

## READ AND CLARIFY

4. All RSW's must attend and sign the relevant Pre-Work Brief prior to works commencing. This is to ensure they have a clear understanding of the worksite protection limits, hazards and the controls in place for their safety.

**Facilitator to discuss with group:** As a RSW, you have an accountability to:

- Attend and understand all information delivered in the relevant Pre-Work Brief
- 'Speak up for Safety' and ask questions at any time for clarification
- Ensure you sign on to the Pre-Work Brief
- Ensure you are Fit for Duty prior to commencing work

**Facilitator to ensure that all RSW's understand the brief is a legal document that can be used as evidence in a court of law.**

5. All RSW's must clearly understand the Emergency Evacuation Procedures, Position of Safety (POS) and the audible warnings that will be used to alert of the approach of rail traffic.

As a RSW, you are **accountable** for ensuring you clearly understand the POS, evacuation procedures and warning devices used to alert of the approach of rail traffic.



# WHAT IS WORKSITE PROTECTION?

Worksite protection is the process of providing early warning of approaching rail traffic, controlling the approach of rail traffic or the exclusion of rail traffic from a worksite.

The method or level of worksite protection required is determined by the TFPC after completing a RSWHA.

When the TFPC has determined the appropriate level of worksite protection, the required control measures will be put in place prior to the works commencing to ensure that all RSW's and the worksite is protected.

A summary of the information gathered from the RSWHA is delivered to all RSW's at the relevant Pre-Work Brief.



## OBJECTIVE

To ensure all RSW's understand what worksite protection is.

## READ

Worksite protection is the process of providing early warning of approaching rail traffic, controlling the approach of rail traffic or the exclusion of rail traffic from a worksite.

The method or level of worksite protection required is determined by the TFPC after completing a RSWHA.

When the TFPC has determined the appropriate level of worksite protection, the required control measures will be put in place prior to the works commencing to ensure that all RSW's and the worksite is protected.

A summary of the information gathered from the RSWHA is delivered to all RSW's at the relevant Pre-Work Brief.

## QUESTION TO STUDENTS

### 1. Why does the TFPC perform a hazard assessment?

Answer must include discussion of: TFPC **performs a hazard assessment to determine what level of protection is required** – i.e. what movements the trains can make while the works are being performed.

### 2. Who is accountable for allowing works to begin in the danger zone?

The TFPC is accountable for ensuring that the protection is in place prior to the commencement of the works.

### 3. What is some of the information that you as a RSW will find out at the Pre-Work Brief?

All RSW's are provided with a summary of the hazard assessment at the relevant Pre-Work Brief – e.g. hazards, emergency evacuation, POS, scope of works etc.

# WHO PLANS WORKSITE PROTECTION?

The primary duty of a TFPC regardless of their qualification is to keep all the RSW's and the worksite safe from rail traffic.

The TFPC must complete a RSWHA prior to any works commencing in the rail corridor.

By completing the RSWHA, the TFPC can determine the appropriate level of protection required to protect the worksite and the RSW's from rail traffic while the task is being performed.

The TFPC will implement the appropriate level of worksite protection required to protect the worksite before the works commence.



## OBJECTIVE

To ensure all RSW's understand who plans the worksite protection prior to the works beginning.

## READ

The primary duty of a TFPC regardless of their qualification is to keep all the RSW's and the worksite safe from rail traffic.

The TFPC must complete a RSWHA prior to any works commencing in the rail corridor.

By completing the RSWHA, the TFPC can determine the appropriate level of protection required to protect the worksite and the RSW's from rail traffic while the task is being performed.

The TFPC will implement the appropriate level of worksite protection required to protect the worksite before the works commence.

## DISCUSS

1. **What are some of the hazards the TFPC would be looking at to determine the level of protection required?**

The TFPC plans the worksite protection based on the location, work requirements, equipment used, weather conditions and size of the work group.

2. **As a RSW, how do you know that worksite protection has been put in place?**

The TFPC must implement the required level of worksite protection prior to the workgroup entering the rail corridor and works commencing.

**Facilitator to draw on example of when the conditions have changed and the worksite protection plan has had to be adjusted.**

Discuss how: The TFPC is also responsible to amend the worksite protection if the conditions change.

**Statement:** All works planned for inside the rail corridor must be first assessed by a TFPC for safety and the works potential to enter and impact the danger zone.

## LAVERTON INCIDENT: PLANNING WORKSITE PROTECTION

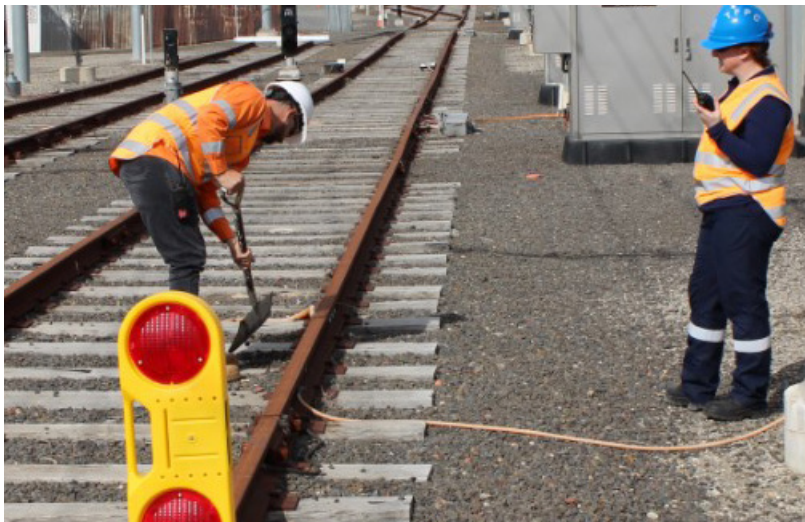
### WHEN DO YOU REQUIRE WORKSITE PROTECTION?

Worksite protection is required anytime the intended works have the potential to or will intrude into the danger zone.

The TFPC will determine the level of worksite protection required by the nature and location of the work.

The WGS must have effective communication with the TFPC at all times to ensure that the workgroup and all RSW's are protected from rail traffic.

If there are any changes to the location, scope of works or weather conditions, the TFPC must reassess the current worksite protection in place and determine if the protection is still appropriate.



ZERO HARM

### OBJECTIVE

To ensure all RSW's understand when worksite protection is required.

### READ

Worksite protection is required anytime the intended works have the potential to or will intrude into the danger zone.

The TFPC will determine the level of worksite protection required by the nature and location of the work.

The WGS must have effective communication with the TFPC at all times to ensure that the workgroup and all RSW's are protected from rail traffic.

If there are any changes to the location, scope of works or weather conditions, the TFPC must reassess the current worksite protection in place and determine if the protection is still appropriate.

### DISCUSS

#### 1. What sort of works could impact the danger zone?

Suggestions of major works, heavy equipment, electrical work, anything involving the track etc.

#### 2. Facilitator to draw on previous example of when the protection plan changed, how this process occurred and how RSW's were notified

**Statement:** As a RSW, you have a responsibility to **speak up for safety** if you think that the protection is inadequate or you don't feel safe. This is working towards the goal of Zero Harm.

GLOSSARY

**All Right Hand Signal:**

The All Right hand signal is one arm held in the horizontal position. By night a white light held steady.

**Australian Transport Safety Bureau (ATSB):**

The **ATSB** is Australia's national transport safety investigator.

**Danger Zone:**

Is all space within 3 metres horizontally from the nearest rail and any distance above or below this zone including being on the line, unless a Position of Safety exists or can be created.

**Flagman/Handsignaller:**

Is a rail safety worker who displays hand signals to the operators of rail traffic movements. A Handsignaller is also referred to as a Flagman.

**Metro Trains Melbourne (MTM):**

Metro Trains Melbourne, known colloquially as simply Metro, is the franchised operator of the suburban railway network in Melbourne, Australia. Metro Trains Melbourne is a joint venture between MTR Corporation, John Holland Group and UGL Rail.

**Office of the National Rail Safety Regulator (ONRSR):**

An independent body corporate established under the Rail Safety National Law (South Australia) Act 2012. The primary objectives of the ONRSR are to encourage and enforce safe railway operations and to promote and improve national rail safety.

**Protection Officer (PO):**

The qualified worker responsible for rail protection (NSW, SA, QLD, WA).

**Position of Safety (POS):**

Is a place where people or equipment cannot be struck by rail traffic.

**Rail Safety Pre-Work Briefing:**

Is a formal briefing on the worksite protection arrangements provided by the Track Force Protection Coordinator to all rail safety workers associated with the worksite protection and the Work Group Supervisor.

**Rail Safety Worksite Hazard Assessment (RSWHA):**

Is an assessment of the rail safety hazards to determine the method/level of protection requirement for a worksite.

LAVERTON INCIDENT: PLANNING WORKSITE PROTECTION

**Rail Safety Worker (RSW):**

Is a person who has carried out, is carrying out or is about to carry out, rail safety work, and includes:

- a) a person who is employed or engaged by a rail operator to carry out rail safety work
- b) a person engaged by a person (other than by a rail operator) to carry out rail safety work
- c) a trainee
- d) a volunteer.

**Track Access Desk (TAD):**

Provides a single approval point for access by internal and external stakeholders requiring track access within the Rail Corridor and Danger Zone.

**Track Force Protection Coordinator (TFPC):**

Is the person appointed to assess and implement worksite protection arrangements on site.

**Track Force Protection:**

Track force protection is a method of protecting work on track between rail traffic movements.

**Work Group Supervisor (WGS):**

Is the individual ultimately responsible for the supervision of the programmed activities within a Work Site.

**Work Group Supervisor Pre-Work Briefing:**

Is a formal briefing on the task related activities provided by the Work Group Supervisor to the work group and Track Force Protection Coordinator.



## FURTHER INFORMATION AND SAFETY PLEDGE



### FURTHER INFORMATION

If you require any further information, please discuss with your supervisor.

#### INFORMATION SOURCES

- Australian Transport Safety Bureau (2017), Safe work on track across Australia, Analysis of incident data, 2009 - 2014
- Australian Transport Safety Bureau (ATSB), Rail Occurrence Investigation, RO-2015-019, Final 24 August 2016
- MTM General Operating Procedures
- MTM Planning Worksite Protection in the Rail Corridor
- MTM Rail Safety Worksite Hazard Assessment
- MTM RSWHA Briefing Note

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### OBJECTIVE

Commitment to the pledge from all participants.

Advise participants that further information about the incident is available.

### READ

Restate the pledge: **As a Rail Safety Worker (RSW), I hereby pledge to acknowledge and understand the planning and implementation of the required worksite protection prior to entering the rail corridor.**

### DISCUSS

**Leader commits to the pledge by providing a summary of how planning of worksite protection occurs.**

**Ask each person:**

1. How are you going to ensure that the worksite protection plan is in place prior to work?
2. How would you ensure that the protection is adequate for your safety?

**Highlight where support or further information can be obtained.**