This course was developed by the Joint Coordination Committee | Safety Subcommittee for the Level Crossing Removal project.
Learning objectives

- Respect the rail
- Work together
- Understand rail safety risks
- Understand and implement risk controls
- Remember the key roles and their responsibilities
**Talking rail**

Know your acronyms... what does each one stand for?

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>CSR</td>
<td>Combined Services Route</td>
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<tr>
<td>EAP</td>
<td>Electrical Access Permit</td>
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<tr>
<td>NAE</td>
<td>Notification and Approval for Excavation</td>
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<tr>
<td>OCCO</td>
<td>Absolute Occupation</td>
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<tr>
<td>OHLE</td>
<td>Overhead Line Equipment</td>
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<tr>
<td>OSO</td>
<td>Overhead Safety Observer</td>
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<tr>
<td>POS</td>
<td>Position of Safety</td>
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<tr>
<td>PTDT</td>
<td>Permit to Disturb Track</td>
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<tr>
<td>PTF</td>
<td>Permit to Foul</td>
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<tr>
<td>PTW</td>
<td>Permit to Work Near (electrical)</td>
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<tr>
<td>RIW</td>
<td>Rail Industry Worker (card)</td>
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<tr>
<td>RSWHA</td>
<td>Rail Safety Worksite Hazard Assessment</td>
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<td>SAD</td>
<td>Safe Approach Distance (to electrical infrastructure)</td>
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<tr>
<td>SWMS</td>
<td>Safe Work Method Statement</td>
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<tr>
<td>TFPC</td>
<td>Track Force Protection Coordinator</td>
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<td>USO</td>
<td>Underground Services Observer</td>
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</table>
Who’s who on the track

Overhead Safety Observer (OSO)  
A person competently trained in 'live' line protection and implementation who watches and stops plant from breaching safe approach distances to electrical infrastructure.  
*Overhead Safety Observers wear an orange hard hat.*

Rail Industry Worker (RIW)  
As a RIW you are required to:  
- be fit for work at all times  
- carry your RIW card at all times  
- always wear mandatory PPE  
- be free from fatigue, drugs and alcohol  
- hold a valid medical assessment  
- attend and sign onto the pre-work brief and safety documentation  
- always follow TFPC and WGS instructions  
- immediately report all incidents, near misses, issues or concerns to your WGS.

Track Force Protection Coordinator (TFPC)  
A trained and competent person who assesses and implements worksite protection arrangements:  
- easily identified by a blue hard hat marked TFPC  
- must be onsite prior to work commencing  
- completes the RSWHA  
- delivers the rail safety briefing  
- identifies a Position of Safety (POS).

Work Group Supervisor (WGS)  
Responsible for supervising onsite daily tasks:  
- delivers the work pre-start brief  
- manages worksite activities  
- works closely with TFPCs  
- communicates essential information to the work group  
- manages all changes to work scope.
The purpose of a rail safety pre-work brief is to ensure you are up to date with daily changes to onsite rail construction.

**Rail safety brief**

Conducted by a TFPC and includes the following information:
- Position of Safety (POS)
- Safe working protection in place
- Emergency information
- Rail operations.

**Site pre-start brief**

Includes the following information:
- Fitness for work
- Site safety issues
- Incidents/alerts
- Work group tasks
- Works and progress
- Weather conditions
- Other work groups onsite.

**Pre-work brief**

Conducted by a WGS and includes the following information:
- Work group tasks schedule
- Work area hazards
- Safety documentation
- Other work groups on site.
Interactions and working together

Many activities take place while working on or near the rail. You must be aware of the activities around you and think about how to protect the operational rail network, the travelling public and your workmates.

- Look out and listen for trains and other rail vehicles
- Look out for hazards
- Look out for other work groups completing tasks around your work area
- Look and listen for mobile plant operating around you

Follow all safety instructions
Report hazards and incidents
Moment of change

Things don’t always go to plan when working on the rail.

When can it happen?
- Scope change
- Not in original plan
- Deviation from approved documents e.g. SWMS.

What should you do?
- STOP work immediately
- Talk to a supervisor
- Reassess the work activity
- Talk to a TFPC (works’ reassessment required).

Don’t…
- Be afraid to ask
- Ignore it
- Continue working.
Commit to be fit for work

Your first occupation
Be prepared for:

- Intensity of works
- Congestion on the rail network
- Changes to shifts and hours.

Fatigue
Fatigue can lead to:

- Reduced awareness of your environment i.e. rail network
- Slower reaction time to incidents and emergencies
- Reduced concentration
- Poor hand eye coordination
- Increased risk taking.

Drugs and alcohol
Being under the influence of drugs and alcohol can lead to:

- Errors
- Poor judgment
- Removal from the rail network i.e. sent home
- Losing your MTM role.

The Blood Alcohol Limit for working on the MTM network is 0.00.
Types of safe working protection

**Absolute Occupation**
- A section of track is closed for a specified amount of time
- Allows general maintenance or major infrastructure works to be completed

**Track Force Protection**
- Required when work involves obstructing the track with plant or equipment, i.e. a major task/activity
- A TFPC must be on site at all times
- Utilises ATWs and handsignallers

**Lookout Protection**
- Required for minor works involving light powered and non-powered tools only
- A qualified handsignaller or lookout must be on site at all times
- Only takes place under the direction of a TFPC
HAZARD: Dropped objects

Risks
- Fouling the track
- Public danger
- Workers injured

Controls
- Screen panels/barriers
- Tethering of tools
- Exclusion zones
- Good housekeeping
- Hard hat chinstraps

Hard hat tethered to collar to prevent it from falling

Tools tethered to belt using cables and clips
Protect overhead rail assets
Look up and live

HAZARD: Live electrical overhead lines and infrastructure

Risks and consequences
- Contact by personnel or plant causing electrocution
- Plant strikes overhead line equipment causing damage
- Shorting spark gaps can cause structures to become 'live'
- Infrastructure failure delays trains.
There are strict limits of approach for working around rail electrical infrastructure.

**Works outside of 6.4 metres**
A permit or OSO is not required for works outside of 6.4 metres.

**Works between 2 and 6.4 metres**
Site must be inspected by MTM Electrical Overhead Department. Overhead Safety Observer required at all times.

**Works within 2 metres**
Permit to Work required. NO contact with electrical wiring! Line must be isolated. NO lifting over exposed equipment!
Protect underground rail assets: Can you dig it?

HAZARD: Working near underground rail assets

Risks
- Electrocution
- Workers hit by moving objects
- Striking services
- Obstructing the track
- Public danger
- Damage to other assets

Controls
- Barriers
- PTWs
- MTM’s 4 stage process:
  1 - Initial proving
  2 - Notification and Approval to Excavate (NAE)
  3 - Physical proving
  4 - Excavation commences.

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HAZARD: Working on the MTM rail network

**Risks**
- Commuter safety
- Pedestrian safety e.g. station precincts
- Traffic (public) safety
- Damaging assets.

**Controls**
- Barriers and signage
- Asset protection plan
- Traffic management plan
- Pedestrian movement plan
- Access/egress