KiwiRail

General Rules

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GR01 Railway Corridor Safety

1. Principles

This rule unit is aligned with the following KiwiRail Fundamental Operating Principles:

Principle 1 - Rail personnel must take all possible steps to ensure their activities are carried out in a safe manner.

Principle 4 - Rail vehicles and other transport modes must be separated or the interface managed.

Principle 5 - Rail vehicles must be prevented from entering or moving if the railway infrastructure integrity is suspected of being in an unsafe state and/or line obstructed.

Principle 6 - Rail vehicles must be prevented from moving if their integrity or compatibility is unsafe or suspected to be in an unsafe state.

Principle 8 - Safe separation must be maintained between people, plant, and rail vehicles.

2. Purpose

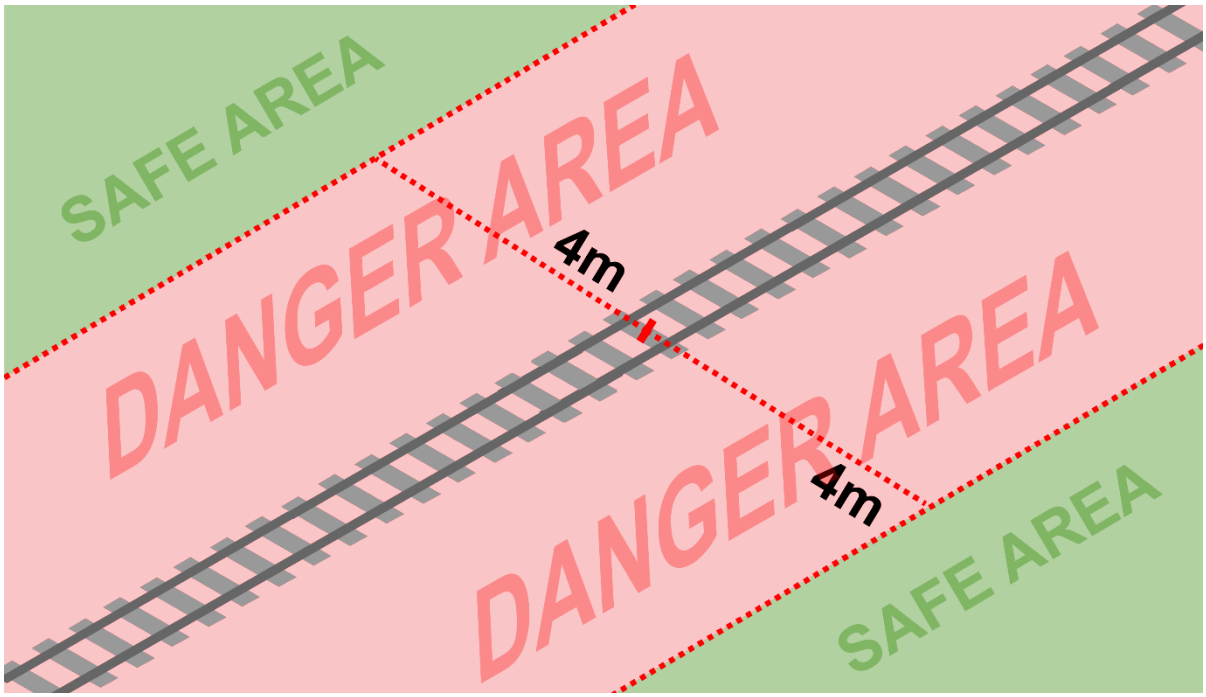
To prescribe the rules for railway corridor safety.

3. General

Rail Personnel

The railway corridor contains two areas:

- a danger area, and
- a safe area.



Railway Corridor

DANGER
The railway corridor is a high-risk location. Rail Personnel and equipment within the railway corridor must be in and remain in the safe area for all rail vehicle movements.

IMPORTANT
Rail Personnel connected with the running of trains must cooperate and give ready responses to any directions issued by the Train Controller.

3.1 Danger Area

Rail Personnel

Unless a safe place exists or has been established, the danger area is:

- all space within four metres horizontally from the centre of the nearest railway line, and
- any distance above or below four metres.

4. Entering the Railway Corridor

4.1 Authority

Rail Personnel

Before you enter the railway corridor, you must:

- have the authority to enter, and
- hold an approved and current track safety qualification.

IMPORTANT
Rail Personnel, Contractors and Visitors to the railway corridor who are not qualified in track safety must be supervised by a Competent Worker.

WARNING
Rail vehicles can approach from any direction at any time.

You must comply with instructions given by the Train Controller related to the following:

- entering the railway corridor, or
- occupancy of a railway line, or
- movement of rail vehicles on a railway line.

If there is a potential that an instruction provided by the Train Controller may cause an accident or incident, you must:

- not act on the instruction, and
- immediately tell the Train Controller.

4.2 Railway Corridor Requirements

Rail Personnel

When you enter the railway corridor, you must:

- correctly wear personal protective equipment of an approved type
- not wear anything that makes you less able to see or hear approaching rail vehicles
- maintain vigilance for approaching rail vehicles by looking up in both directions at least every five seconds in both directions
- use authorised walking routes where provided
- not step on rails or between movable parts of points
- not allow yourself to be distracted by anyone or anything
- not carry anything that will affect your ability to walk safely, see, hear or be able to acknowledge approaching rail vehicles
- have approved lighting with you during low visibility conditions, darkness, or if you are entering a tunnel
- be in a safe place at least 15 seconds before the arrival of approaching rail vehicles at your location.

WARNING

You must not wear bright red or green clothing or use unauthorised lights that may be confused as a signal.

NOTE

Rail Personnel must reference KiwiRail Standard 04-STD-005-SHE Personal Protective Equipment for approved types of PPE.

4.3 High Visibility Clothing

Rail Personnel

You must ensure high visibility clothing:

- is clean and in good condition
- has high visibility panels during the day
- has high visibility reflectorised strips during the night.

IMPORTANT
At all attended terminals, freight sites and other loading sites, the instructions for wearing high visibility clothing will be outlined in the Worksite Safety Plan relating to those locations. At other locations, when moving on foot either alongside or on the main line or crossing loop, high visibility clothing must be worn.

NOTE
Any Contractor or Visitor entering a KiwiRail worksite must adhere to KiwiRail Standard 04-STD-005-SHE Personal Protective Equipment for working within the railway corridor.

4.4 Road Vehicles

Rail Personnel
When using a road vehicle within the railway corridor, you must use approved roadways and level crossings where practicable.

When a road vehicle stands foul of the line, you must ensure:

- there is no risk of a collision, and
- track protection has been provided.

4.5 Minimum Operating Clearances

Ganger
You must ensure that the minimum operating clearances are maintained.

Rail Personnel
You must report to your manager if you suspect the minimum operating clearances are not maintained.

NOTE
Minimum operating clearances relating to structures or appliances are contained in the **Local Network Instructions.**

4.6 Safe Place Designation

Rail Personnel
You must only use the designated safe place described in the pre-start briefing.

5. Fit For Duty

Rail Personnel
You must be fit for duty in accordance with your **Rail Operating Company's Fitness for Work Policy.**

6. Bulletins

Rail Personnel

IMPORTANT
Bulletins for the area of operations must be available for Rail Personnel use.

6.1 Bulletins in Effect Summary

Rail Personnel
You must check which bulletins are currently in effect and ensure you know and understand all relevant information for your duties.

You must confirm with the Train Controller that you have seen the most current Bulletins in Effect Summary when commencing duty at a depot where a Manager/Supervisor is not on duty.

NOTE
Details of bulletins in operation and those just recently cancelled will be notified on the Bulletins in Effect Summary.

IMPORTANT
The Bulletins in Effect Summary must be displayed at each operating location.

6.2 Acknowledgement of Bulletins

Rail Personnel
You must acknowledge and read back any bulletin when directed by the issuer.

6.3 Unable to Act on Bulletin Instructions

Rail Personnel
If a bulletin is received too late to follow the instructions, you must immediately tell the Train Controller and request further instructions on the required actions.

6.4 Changing Bulletins

Operator
You must check with the Train Controller for additional information when commencing a shift when a Manager/Supervisor is not on duty.

You must endorse the information bulletin with any special conditions/additional instructions as advised by the Train Controller, and:

- endorsements must be written clearly, and
- must include the name of the person authorising the change (Network Planner or Train Controller), and
- must be handed over when a crew change takes place

6.5 Bulletins Issued and Reissued

Train Controller

You must tell all Rail Personnel who have commenced work of any changes that affect them (i.e., updated information bulletin/speed restriction).

NOTE
If a change is required on the day of operation, the information bulletin will be updated, and the Manager/Supervisor responsible for the area concerned will be advised.

NOTE
This action may be delegated to Rail Personnel at stations/terminals.

6.6 Stations/Terminals

Operator

You must check for updated bulletins and speed restriction information before each return journey from any stations/terminals.

NOTE
The Train Controller will provide information where information is not readily available.

Rail Personnel

When instructed by the Train Controller, you must not dispatch trains until the speed restrictions or bulletins have been delivered.

6.7 Passenger Train Crew

Operator

You must tell the Train Crew of any special local conditions before they exit the train at other than the usual passenger stops.

Train Crew Manager

You must ensure Train Crew are advised of any special instructions applicable to them that are issued by a bulletin.

NOTE
Bulletins will not be provided to Train Crew (other than Operators) on passenger services.

7. Mobile Communications Devices

7.1 Equipment Restrictions

Rail Personnel

When undertaking rail safety work, you must ensure that mobile phones, tablets, and all non-company approved devices are:

- turned off or switched to flight mode or silent mode, and
- stored out of visual and reachable range.

NOTE
Wearable Technology

Smart watches and fitness trackers may be worn when undertaking rail safety work, but:

- app use is prohibited, and
- the device must also be set to flight mode or silent mode with notifications disabled.

CAUTION
While carrying out rail safety work, you must avoid being distracted using mobile communications devices.

7.2 Approved for Use with Rail Safety Work

Rail Personnel

You must only use authorised mobile communications devices:

- when it is safe
- for tasks related to your role
- only in accordance with the mobile communications device safe working instructions.

When undertaking track work or walking in the railway corridor, you must move to or remain in a safe place before using any authorised mobile communications device.

7.3 Entertainment Radios

Rail Personnel

You must only connect personal audio devices to an entertainment radio via the aux input when the radio is fitted with active muting for radio calls.

8. In the Railway Corridor

8.1 Rail Vehicles Approaching

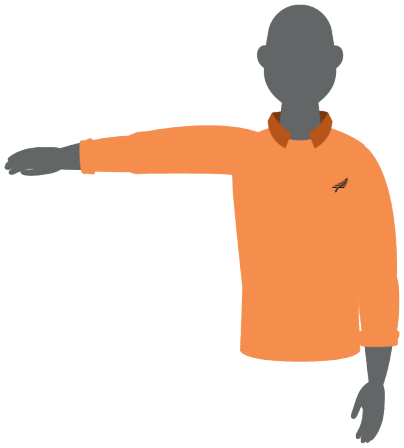
Rail Personnel

When rail vehicles approach, you must:

- be in a safe place at least 15 seconds before the arrival of approaching rail vehicles at your location
- acknowledge the motive power unit horn with a clear proceed hand signal
- remain in the safe place until the rail vehicle has passed clear and complete.

If you are in a workgroup, only one delegated member must acknowledge with a clear proceed hand signal.

The delegated member may provide the clear proceed hand signal to the rail vehicle before the motive power horn is sounded.



Clear Proceed Hand Signal

Operator

When an expected response or acknowledgement to the motive power unit horn is not received, you must repeat the sounding of the motive power unit horn and, if necessary, stop the rail vehicle.

8.2 Observing Rail Vehicles

Rail Personnel

When walking or working in the railway corridor, you must monitor passing rail vehicles for any defects from a safe place.

If any defects are identified on the rail vehicle, you must tell:

- the Train Controller, and

- the Operator, if possible.

If the defects can affect safety on the railway network, you must attempt to stop the rail vehicle by radio communication or an emergency hand signal.

NOTE
Defects can include:

- Over heated axle boxes/wheel bearings
- Sticking brakes
- Sliding/skidding wheels
- Wheels not correctly positioned on the rails (derailed)
- Dragging equipment (brake rodding, bond chains etc)
- Unsecure loads
- Signs of smoke or fire
- Headlight or end of train signal incorrectly or not displayed
- Damaged pantograph
- Any other dangerous condition

Train Controller

If a defect has been reported, you must tell the Operator:

- to stop the rail vehicle
- investigate the defect and rectify it, if possible
- report on the status of the rail vehicle.

Operator

If you observe or are advised of a defect, you must:

- stop the rail vehicle immediately
- tell the Train Controller
- investigate and rectify the defect, if possible.

8.3 Adjacent Line Protection

Rail Personnel

On multiple lines, you must request protection where work or activities may encroach into the danger area of the adjacent line in accordance with **TS02 Protected Work Area**.

8.4 Crossing Lines

Rail Personnel

When crossing lines, you must confirm that stepping out from behind a stopped rail vehicle(s) onto a live line is safe.

8.5 Walking Between or Around Rail Vehicles

Rail Personnel

You must not walk between or around rail vehicles unless you have confirmed:

- there is a 10 metre gap between rail vehicles when walking between
- there is a five metre distance from the front or rear of the rail vehicle when walking around
- the rail vehicles are stationary
- no rail vehicle movements are passing the stationary rail vehicle.

You must cross in the centre of the gap to ensure a five metre safety gap either side.

9. Entering the Danger Area

Rail Personnel

You must only enter the danger area if there is no other option.

Before entering the danger area, you must be provided with the information on:

- the location(s) of a safe place
- any restrictions where no safe place is available
- any approaching rail vehicles
- how to reach a safe place before the arrival of any rail vehicles.

NOTE
If a person is not qualified in track safety, they must be supervised by a Competent Worker.

9.1 Walking in the Danger Area

Rail Personnel

You must only undertake the following activities when walking in the danger area:

- to cross directly from a safe place to another safe place
- to place or remove protection
- to walk along the line to a worksite via the shortest route.

CAUTION
You must not carry out any work when walking in the danger area.

When a rail vehicle approaches, you must:

- immediately move to and remain in a safe place until the rail vehicle has passed
- not return to the danger area until you confirm the rail vehicle is not immediately returning.

CAUTION
When in the railway corridor, you must know that rail vehicles can approach from either direction at any time.

9.2 Working in the Danger Area

Rail Personnel

You must plan the use of a protection method before carrying out track work in accordance with **TS01 Planning Work in the Railway Corridor**.

9.3 Protection

Rail Personnel

You must ask the Train Controller to protect the affected line when:

- crossing the line or walking along the line to a worksite if the required sighting distance is not available, or
- inspecting rail vehicles on the live side of adjacent line locations.

10. Detonator Signals

10.1 Supply and Issue of Detonators

Competent Worker

You must ensure that you have a supply of detonators available if you are responsible for:

- track work in connection with the line, or
- operating a rail vehicle.

If you are supplied with detonators, you must ensure:

- the correct supply of detonators is maintained
- they are ready for use
- a record is maintained regarding their use and expiry date.

NOTE
Detonators must be issued and used in date order.

10.2 Handling of Detonators

Competent Worker

You must carefully handle detonators to prevent any damage that may cause an unplanned explosion.

10.3 Safe Storage of Detonators

Competent Worker

You must store detonators correctly to protect them from accidental damage and dampness.

You must ensure detonators:

- are retained in their existing packing until they are used
- are replaced by packed and sealed tubes of detonators
- carried in KiwiRail infrastructure vehicles are stored in non-friction lined steel boxes and padlocked with a 100 key

- carried on motive power units are stored in the safe appointed place on the motive power unit
- carried on contractor vehicles, are stored in non-friction lined steel boxes and padlocked (key or combination).

IMPORTANT
If less than the entire tube of detonators is carried, the excess space must be filled with non-friction material such as newspaper.

Detonator Signals Steel Box

10.4 Use and Placement of Detonators

Competent Worker

You must place detonators:

- one on each rail and directly opposite each other so they will explode simultaneously
- a minimum of 10 metres apart from other detonators
- label upwards, close as possible, in the centre of the rail
- with the clasps bent around the upper flange of the rail.

You must replace detonators that have been:

- removed to allow the passage of rail vehicles
- removed from the rail
- accidentally exploded.

IMPORTANT
After the work is completed, all detonators must be removed.

Rail Personnel

You must only use detonators:

- for emergency protection
- as a danger signal for relief rail vehicles approaching disabled rail vehicles
- as secondary means of protection at worksites.

NOTE

Detonators must be used by both day and night if their use is prescribed.

10.5 Running Over Detonator Caution Signals

Operator

If you run over and explode either one or two pairs of detonators, you must:

- immediately shut off the power
- reduce speed
- bring the rail vehicle(s) under control to be prepared to stop, if required
- proceed cautiously to the defective place or until a further signal is received.

10.6 Running Over Detonator Stop Signals

Operator

If you run over and explode a group of three or more pairs of detonators, you must:

- immediately come to a stop
- remain stationary until you have confirmed the nature of the obstruction
- act on the information received from the Competent Worker.

Competent Worker

You must renew any detonators which have accidentally exploded.

10.7 Detonator Safety

Competent Worker

When a rail vehicle approaches the detonators, you must move away from the detonators and stand in a place that meets the minimum safe distance requirements.

DANGER

You must keep a minimum safe distance of 50 metres from placed detonators to avoid being hit by fragments if they explode.

10.8 Disposal of Detonators

Competent Worker

You must not use expired detonators or those over five years old.

If a detonator fails to explode when a rail vehicle passes over it, you must:

- promptly remove the failed detonator
- contact the KiwiRail Network Control Manager to arrange the disposal of the failed detonator.

11. Reporting Incidents

Rail Personnel

You must immediately report to the Train Controller:

- all incidents, and
- any departure from the **Rail Operating Rules and Procedures**
- any safe working or operating irregularities on the controlled network.

12. Official Time

Train Controller

You must maintain the correct time (24-hour clock), which may be referenced for accuracy by Rail Personnel.

GR02 Network Communications

1. Principles

This rule unit is aligned with the following KiwiRail Fundamental Operating Principle:

- **Principle 1** - Rail personnel must take all possible steps to ensure their activities are carried out in a safe manner.

2. Purpose

To prescribe the rules for using spoken and written communications within the network.

3. General

Rail Personnel

You must be certified in the communication equipment being used.

You must ensure that communication equipment used for rail vehicle operation or work on the track is tested and checked for its intended operation before use.

When transmitting safety critical communications, you must carry out the following communication protocols in accordance with **RP01 Applying Network Communications**:

- use the 24-hour clock to give times
- be clear, brief, and concise
- only communicate what is relevant to the task being undertaken
- ensure all information is understood
- use the phonetic alphabet to clarify any information.

You must communicate directly with the Train Controller by handheld or rail vehicle radio or telephone when necessary.

NOTE
Communication can be spoken, written, or by electronic transmission.

4. Spoken Communication

Rail Personnel

You must promptly acknowledge spoken communication.

If the meaning of the spoken communication is not understood, you must:

- ask for it to be repeated, or
- if necessary, use the phonetic alphabet and spoken numbers to clarify and confirm the message.

IMPORTANT
All radio communications must use approved radio channels.

You must use the radio communication protocols in accordance with **RP01 Applying Network Communications**.

5. Written Communication

Rail Personnel

When completing forms, authorities, reports and/or records, you must:

- ensure that all relevant information is detailed
- instructions read out by the Train Controller or Signaller must be written clearly and not abbreviated
- acknowledge any written instructions by repeating them to the sender to allow a cross-check process.

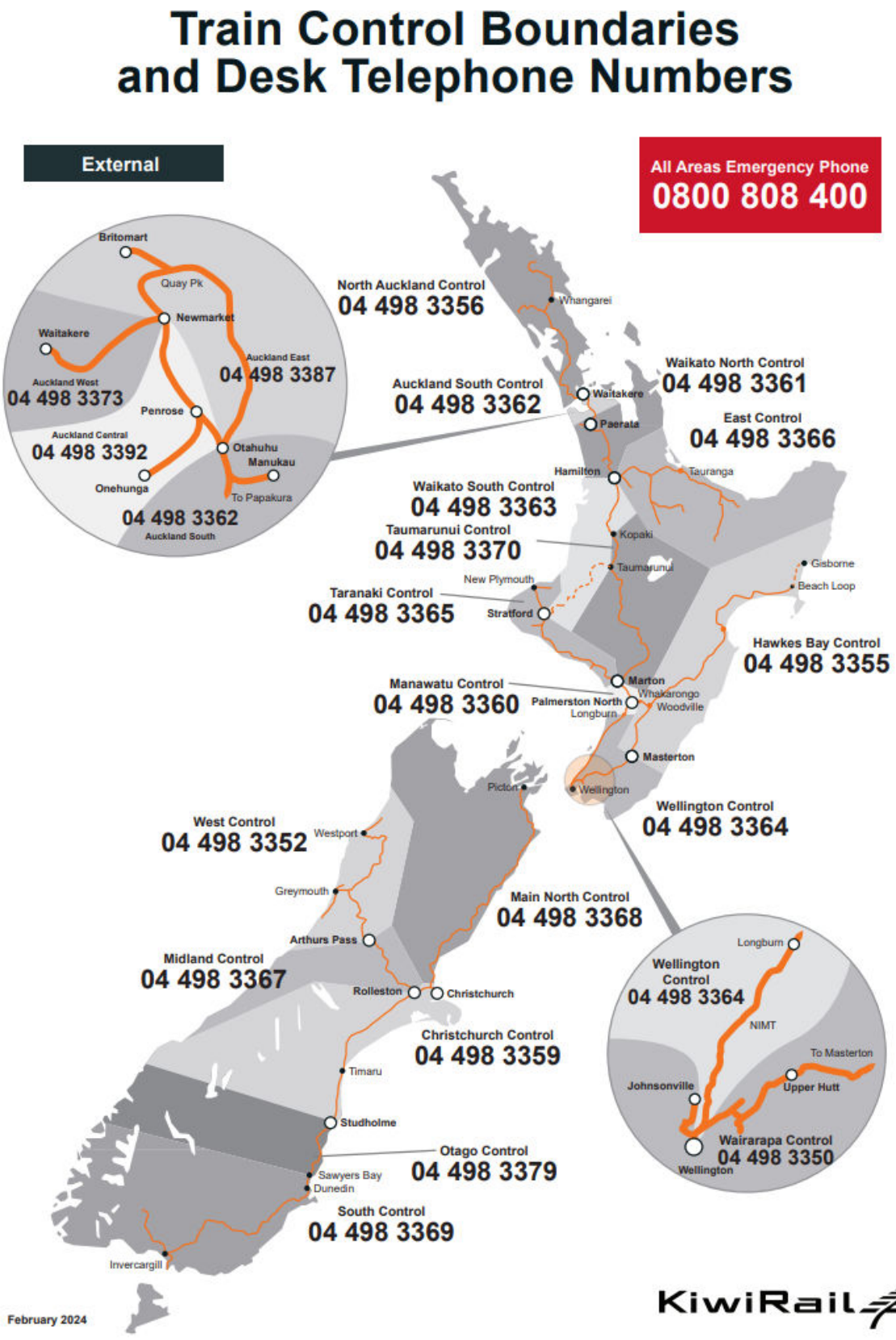
6. Train Control Telephone

Rail Personnel

When communicating on the Train Control telephone, you must be concise.

You must give immediate attention to telephone calls from Train Control.

NOTE
Dedicated telephone lines are provided for communication between Train Control and some stations, tunnels, or operations centres.



Train Control Boundaries and Desk Telephone Numbers

7. Radio Communication Equipment

Train Controllers use a computer aided selcall system that allow radios to be selectively called and identified. All radio equipment used on the controlled network must be equipped with the selcall facility and meet NRSS standards.

Rail Personnel

You must:

- only use the dedicated radio network when communicating with the Train Controller, and
- ensure the radio is on the correct channel for the area.

You must operate radio equipment in accordance with RP01 Applying Network Communications and the Radio Systems Manual.

NOTE
The radio provides the primary communication system within many aspects of operations. The radio system uses an open channel.

7.1 Train Control Radio

Rail Personnel

You must give immediate attention to radio calls from Train Control when it is safe.

7.2 Radio Communications in Tunnels

Rail Personnel

You must ensure that the correct radio communication is used when assisting the Operator with a train failure in a tunnel situation.

You must use either the UHF radio or the VHF (E band) radio in accordance with **Radio Systems Manual, 6. Radio Communications in Tunnels**.

NOTE
Location specific communication protocols may be contained in the **Local Network Instructions**.

7.3 Reporting Defective Radio Equipment

Rail Personnel

If communications equipment is defective, you must:

- stop any work activities
- find an alternative communication method
- report the defective equipment to the Train Controller via the alternative communication method
- not use any radio communication equipment that is defective.

You must follow the instructions provided by the Train Controller when rail vehicle communication equipment becomes defective.

8. Relaying Communications

Rail Personnel

When relaying communications to other Rail Personnel, you must convey the content of the communication precisely as it was received.

8.1 Operator Communication with Train Controller/Signaller

Operator

You must communicate with the Train Controller or Signaller when:

- detained at a signal at stop, and the reason is unknown
- a signal is displaying an imperfect indication
- required to set back in a section or within station limits
- unable to complete a journey through a section because your rail vehicle is disabled
- a rail vehicle is stopped or delayed by any failure, accident, or other unusual incidents
- detained at a protected work area and unable to contact the Rail Protection Officer by radio
- before moving off after being stopped or delayed by any failure, accident, or other incidents.

9. Failure of Communication

Rail Personnel

When communication with Train Control fails, you must communicate with the Train Controller by the best means available. You must report the defective equipment to KiwiRail Operations Support (155).

Train Controller

You must immediately tell the Network Control Manager if normal working is suspended when there is a signal and communication failure.

10. Emergency Communications

Rail Personnel

When communicating an emergency, you must ensure that you:

- start the communication with "Emergency, Emergency, Emergency"
- give your name or identification.

When you receive an emergency call, you must ensure that it is:

- given priority
- answered immediately.

Provided it is safe, you must stop any transmission immediately when an emergency message is transmitted.

You must only transmit during the emergency call if you are responding to or assisting with the emergency call.

IMPORTANT
In an emergency, you must ensure the radio is on the correct channel for the area.

GR03 Hand Signals

1. Principles

This rule unit is aligned with the following KiwiRail Fundamental Operating Principles:

- **Principle 1** - Rail personnel must take all possible steps to ensure their activities are carried out in a safe manner.
- **Principle 2** - Rail vehicles must maintain safe separation via an appropriate method of signalling and/or operation.
- **Principle 8** - Safe separation must be maintained between people, plant, and rail vehicles.

2. Purpose

To prescribe the rules for using hand signals in the network.

3. General

Rail Personnel

You must:

- only use hand signals when radio communication is unavailable
- not use hand signals when the correct signal can be exhibited using a fixed signal.

3.1 Movement of Rail Vehicles

Hand Signaller

When using hand signals to control the movement of rail vehicles, you must:

- only display the prescribed hand signals as defined in the **Network Signals, Indicators and Boards Manual**
- be competent in hand signal duties
- only provide hand signals for which you are authorised
- ensure the Operator can always see your hand signals
- be in or have access to a safe place
- display hand signals in a clear and timely manner so they are understood
- have effective communications with the Train Controller or Rail Protection Officer, if necessary.

3.2 Hand Signalling Use

Hand Signaller

You must only give hand signals using flags or hand movements during daylight.

3.3 Duration of Displaying a Hand Signal

Hand Signaller

You must continue hand signals for:

- Clear proceed - until acknowledged by the Operator or Train Crew.
- Stop - until the rail vehicle has stopped or another hand signal is displayed.

4. General Hand Signals

Hand Signaller

You must only use the approved hand signals to communicate instructions defined in the **Network Signals, Indicators and Boards Manual**.

Operator

You must stop the rail vehicle if you receive a stop hand signal given by:

- a red flag, or
- both hands held high, or
- both hands held high and waved violently/vigorously, or
- any unusual signal.

5. Shunting Hand Signals

Rail Operator

You must only use the approved hand signals to communicate instructions defined in the **Network Signals, Indicators and Boards Manual**.

If you cannot continuously face the Operator while giving a hand signal, you must ensure the Train Crew can see the hand signal.

5.1 Shunting

Rail Operator

When undertaking shunting activities, you must:

- face the direction of the movement, where possible
- ensure that hand signals are given from the side of the motive power unit where the Operator is positioned
- use the hand furthest from the rail vehicle(s) when only one hand is being used to signal, and you are facing the Rail Personnel controlling the movement.

6. Responding to Hand Signals

Operator

When responding to hand signals, you must:

- obey and acknowledge hand signals, and
- if the hand signal is not understood, stop your rail vehicle.

7. Accident, Failure, or Obstruction

Rail Personnel

In cases of accident, failure, or obstruction, you must:

- act immediately and strictly in accordance with the **Rail Operating Rules**
- not depend upon a Hand Signaller for protection.

GR04 Level Crossings

1. Principles

This rule unit is aligned with the following KiwiRail Fundamental Operating Principles:

- **Principle 1** - Rail personnel must take all possible steps to ensure their activities are carried out in a safe manner.
- **Principle 4** - Rail vehicles and other transport modes must be separated or the interface managed.
- **Principle 5** - Rail vehicles must be prevented from entering or moving if the railway infrastructure integrity is suspected of being in an unsafe state and/or line obstructed.
- **Principle 8** - Safe separation must be maintained between people, plant, and rail vehicles.

2. Purpose

To prescribe the rules for operation and interaction with level crossings.

3. General

Rail Personnel

The following types of crossings are in the KiwiRail railway network:

- active level crossings
- passive level crossings.

CAUTION

Level crossings are high risk locations where rail vehicles simultaneously cross paths with road and pedestrian traffic.

4. Approaching Level Crossings

4.1 Active Level Crossing

Operator

When approaching an active level crossing, you must:

- ensure the headlight is on full
- sound the motive power unit horn in accordance with **TO04 Motive Power Unit Horn**
- observe the operation of the level crossing protection equipment.

You must not accelerate within 500 metres of an active level crossing fitted with a Level Crossing Predictor to prevent affecting the equipment warning times.

4.2 Passive Level Crossing

Operator

When approaching a passive level crossing, you must:

- ensure the headlight is on full
- sound the motive power unit horn in accordance with **TO04 Motive Power Unit Horn**.

5. Faulty Active Level Crossing

5.1 Reporting a Failure of Warning Devices

Rail Personnel

If you become aware of the failure of a warning device, you must tell the Train Controller immediately.

You must tell the Train Controller of any level crossing equipment that is:

- missing, or
- damaged, or
- faulty.

Train Controller

When active level crossing equipment has been reported as faulty, you must warn all rail vehicles approaching the level crossing.

You must treat any reporting of the level crossing equipment as a condition affecting the network in accordance with **GR06 Conditions Affecting the Network**.

NOTE
HRVs are not required to be warned of failed level crossing warning devices.

5.2 Protecting the Level Crossing

Train Controller

If equipment protecting an active level crossing has been confirmed faulty, the crossing must be protected, and you must:

- warn all Operators of affected rail vehicles that the warning equipment is faulty
- apply a 10 km/h speed restriction for rail vehicles to protect road traffic
- arrange for a Signals Maintenance Representative to attend
- make a permanent record of the details on the train control diagram.

You must tell Operators of affected rail vehicles of the temporary speed restriction until you have confirmed that Operators of trains approaching the faulty level crossing have the updated speed restriction advice.

You must impose a 10 km/h temporary speed restriction in the Access Provider’s Speed Restriction System.

Operator

You must proceed over the faulty level crossing at no more than 10 km/h and only resume normal line speed when the rail vehicle(s) is on the faulty level crossing.

NOTE
When setting back or propelling over a level crossing, you must do so in accordance with **TO09 Setting Back and Propelling**.

Signals Maintenance Representative
You must only authorise the return to normal line speed once the repairs to the faulty level crossing equipment are complete.

6. Working on a Level Crossing

Rail Protection Officer
You must have authority from the Train Controller before level crossing alarms are:

- manually controlled, or
- disconnected.

Train Controller
You must record on the train control diagram:

- the advice of manual control, disconnection, or remote manual control, and
- restoration to automatic operation.

6.1 Planned Work

Rail Protection Officer
If work may affect the level crossing approach track circuits, you must arrange for level crossings to be either:

- manually controlled,
- disconnected by a Signals Maintenance Representative, or
- remote manually controlled

You must arrange for the work to be notified on a bulletin.

6.2 Manual Control

Rail Protection Officer
You must ensure that each level crossing warning system is:

- operated by a Competent Worker
- managed using manual or automatic operation for rail vehicle movements
- restored to normal operation after the completion of planned work
- confirmed with the Train Controller to be in working order.

You must arrange with the Train Controller if you need unplanned use of the manual control.

6.3 Disconnection of Alarms

DANGER
Unless there are no trains or MTMVs operating in the affected area, a 10 km/h temporary speed restriction must be imposed when level crossing alarms are disconnected to reduce the likelihood of collisions with road vehicles or pedestrians.

Train Controller

When level crossing alarms are disconnected and trains or MTMVs are operating in the affected area, you must:

- impose a 10 km/h temporary speed restriction in the Access Provider's Speed Restriction System
- arrange to have 10 km/h temporary speed boards erected
- ensure the temporary speed boards stay in place until the alarms are reconnected.

IMPORTANT
When a temporary speed restriction is not initially required and circumstances change, you must advise affected Operators of any applicable 10 km/h speed restrictions.

Signals Maintenance Representative

You must impose a 10 km/h speed restriction for the level crossing for the duration the alarms are disconnected for all train and MTMV movements.

You must tell the Train Controller when the alarms are returned to automatic operation.

Rail Personnel

When you receive bulletin advice that planned work involves the disconnection of crossing alarms and a 10 km/h speed restriction is required, you must erect temporary speed boards in accordance with **RP15 Implementing Temporary Speed Restrictions.**

6.4 Remote Manual Control

This instruction does not apply to level crossings in the Christchurch area with historical remote control functions.

NOTE
When remote manual control is applied, the alarms will be isolated and will not activate for train movements.

Train Controller

You must use remote manual control facilities to remotely isolate the level crossing alarms in the following situations:

- **Emergencies** where a train has stopped on the approach, but not on the crossing.
- **Faults** where trackside equipment fails and causes false activation (e.g., axle counter or track circuit failure).
- **Planned Work** where crossings may be activated, or maintenance is required to the crossing alarm system.

NOTE
Crossings fitted with remote manual control are listed in Local Network Instructions with a “T” symbol.

NOTE
When remote manual control is applied at a crossing, all signals will be held at stop and protected by the interlocking.

Before applying remote manual control, you must confirm that any approaching trains are stationary and clear of the crossing.

If the crossing approach is:

- **occupied** by a train or axle counter fault, the alarms will cancel after the approach-locking time delay has run down.
- **clear,** remote manual control will be applied immediately.

NOTE
In bi-directional multi-line areas, each line will have a separate remote manual control function at each crossing.

6.5 Track Warrant Area

Competent Worker

To prevent the warning devices from operating, the signal or purple indication must be cancelled when working in the vicinity of:

- an arrival signal, or
- points indicators located near a level crossing equipped with warning devices.

6.6 Returning to Normal Working

Signals Maintenance Representative

Once the work is complete, you must provide a work certificate to the Train Controller to confirm that the level crossing has been restored to normal operation.

IMPORTANT
A 10 km/h speed restriction must be imposed for train and MTMV movements if the warning devices cannot be restored on completion of work. This must be done through the Access Provider's Speed Restriction System.

Train Controller

You must only return a level crossing to normal operations when the Rail Protection Officer or Signals Maintenance Representative confirms that work is complete, and all equipment works normally.

GR05 Operation of Points

1. Principles

This rule unit is aligned with the following KiwiRail Fundamental Operating Principles:

- **Principle 1** - Rail personnel must take all possible steps to ensure their activities are carried out in a safe manner.
- **Principle 5** - Rail vehicles must be prevented from entering or moving if the railway infrastructure integrity is suspected of being in an unsafe state and/or line obstructed.

2. Purpose

To prescribe the rules for the operation of points in the network.

3. General

Rail Personnel

You must ensure that all points on running lines are correctly set for rail vehicle movements.

Competent Worker

If you need to inspect or hand operate points, in accordance with **RP18 Using Points**, you must ensure that:

- authority is received from the Signaller or the Officer in Charge of the points
- safety controls are in place before commencing work
- a safe place can be easily reached.

DANGER

Do not place any part of your body, equipment, or materials between moving components of points.

4. Securing Points

Competent Worker

Before securing points on the running line, you must get authority from the Signaller or the Officer in Charge of the points.

If points on the main line or crossing loop are not worked from a Signal Box, you must ensure they are locked with an approved type of lock and key when not used for passing rail vehicles.

When facing points are not worked by frame levers, you must ensure that the points are locked for rail vehicle movements.

Unless provided with other instructions, you must ensure that interlocked points are kept in normal when not used.

5. Derailers

Train Crew

Where derailers are fitted, you must lock derailers across the rail once wagons are stabled in the siding or crossing loop.

6. Motorised Points

Competent Worker

You must only manually operate motorised points as directed by the Signaller and must:

- keep clear of any moving components of the points
- not place any equipment or materials within any moving components of the points.

Unless instructed by the Signaller, you must restore the points and locking mechanisms on running lines after use.

7. Defective Points

7.1 Signals and Points

Train Controller

Unless detailed in **Local Network Instructions**, you must set and maintain signals protecting defective points at stop.

If points are found to be damaged, you must:

- report the defective points in accordance with **RP19 Reporting Faulty Signals**
- not use the points until a Signals Maintenance Representative inspects the points, and they are:
  - made safe for the intended movement, or
  - repaired and certified by a Signals Maintenance Representative.

CAUTION

Facing points must not be set for conflicted routes where rail vehicles are at risk of collision.

7.2 Selection and Appointment of Hand Signaller

Competent Worker

If you hold current certification for hand operation of motor points, you may be appointed as a Hand Signaller in accordance with **GR03 Hand Signals**.

Signaller

Before a Hand Signaller commences duty, you must ensure that the Hand Signaller:

- holds a current certification for hand signalling duties by verifying the competency by their manager
- has all the necessary equipment in accordance with **GR03 Hand Signals**
- fully understands their required tasks.

NOTE
When necessary, one or more Competent Workers may be appointed to repeat messages between the Signaller and the Hand Signaller.

7.3 Duties of Hand Signaller

Hand Signaller
When undertaking Hand Signaller duties, you must:

- work in accordance with **GR03 Hand Signals**
- agree with the Signaller on the means of communication
- only act on the instructions of the Signaller
- not allow any rail vehicle to pass until directed by the Signaller
- tell the Signaller when instructions have been carried out.

7.4 Isolating Motor Points

Signaller
When a rail vehicle is required to pass over motorised points that have been reported as defective, you must:

- arrange for the power to be isolated from the points, or
- arrange for the points to be hand-operated in accordance with **RP18 Using Points** before authorising the Hand Signaller to signal the rail vehicle forward, or
- confirm the acceptance of panel indications of the setting and security of points where **Local Network Instructions** allow.

IMPORTANT
The furthest set of points from the intended movement must be isolated first, and all points concerned must remain isolated while rail vehicles are passing over them.

8. Defective Motorised Points

Signaller
If motorised points do not respond correctly, you must:

- warn rail vehicles approaching the motorised points
- tell a Competent Worker to:
  - examine the points
  - report the findings
  - act on the instructions provided.

Competent Worker
You must obtain authority from the Signaller to manually operate the points.

If the motorised points are unable to be operated correctly, you must:

- isolate the points by placing them into the hand operating mode in accordance with **RP18 Using Points**, and
- set the points for the intended route until repaired.

Rail Personnel

When the points are repaired, a Signals Maintenance Representative must confirm that the points are safe for operations.

Signaller

You must only authorise a rail vehicle movement over the points when the Signals Maintenance Representative confirms they are repaired and safe for operations.

9. Lost Points Detection

Signaller

If there has been a loss of points detection, you must stop any rail vehicles from proceeding over the affected points until:

- On the running line - the detection is restored, or authority is provided to operate the points manually.
- Yard and siding - a Competent Worker inspects the points, and the condition and route are verified.

When detection cannot be restored on the running line, you must authorise a Competent Worker to manually operate and secure the points for all rail vehicle movements in accordance with **RP18 Using Points**.

Rail Personnel

If detection is restored, but the points still need repair, you must act on the instructions provided by the Competent Worker.

9.1 Lost Detection Rail Vehicle Moving Over Points

Signaller

If points lose detection as a rail vehicle is moving over them, you must:

- route rail traffic around points with detection faults
- tell the Rail Operator
- tell the Signals Maintenance Representative.

When the rail vehicle has cleared the defective points, no further movements must be permitted until:

- a Signals Maintenance Representative has inspected the points, or
- the points are manually operated.

10. Damaged Points

Rail Personnel

You must tell the Train Controller immediately when:

- derailments occur at interlocked points, or
- when interlocked points have been run through, or
- when any damage or defect has been caused to interlocked points equipment.

Train Controller

You must:

- report the damaged points in accordance with **RP19 Reporting Faulty Signals**, and
- tell the Signals Maintenance Representative.

Rail Personnel

Damaged points must not be operated until the Signals Maintenance Representative inspects the points, and they are:

- made safe for the intended movement of rail vehicles, or
- repaired and confirmed safe for operation.

10.1 Damaged Points in Yards

Rail Personnel

You must tell:

- the Officer in Charge when points have been run through or suspected of being damaged
- the Train Controller when detected hand points that affect the berthing or departure of rail vehicles that have been run through or suspected of being damaged.

You must not allow rail vehicles to pass over any damaged points until a Signals Maintenance Representative has inspected the points and are:

- made safe for the intended movement of rail vehicles, or
- repaired and confirmed safe for operation.

11. Hand Operated Points

Competent Worker

When working in a yard or carrying out shunting movements, you must:

- stand well clear of the hand operated points lever and related equipment when not operating the equipment
- check the points regularly to ensure they
  - operate correctly
  - are clean
  - are clear of obstructions.
- work and walk outside the points lever and switchblades
- not place equipment or material around points
- not place any body part between moving components of points.

11.1 Movement Over Hand Points

Competent Worker

You must ensure the points are examined and set for the intended route.

Before undertaking any rail vehicle movements, you must tell the Train Crew that the points are set for the intended route.

You must ensure that:

- rail vehicles stay stationary and clear of the points until they are correctly set for the movement
- there is no operation of points while the rail vehicles are moving or standing over the points.

12. Points in Worksites

Competent Worker

You must have authority from the Rail Protection Officer to operate a set of points in accordance with **RP18 Using Points**.

Before operating points, you must ensure:

- no workers are near the points, or
- no rail vehicle is stopped on or moving over the points.

You must check that the points are correctly set before every rail vehicle movement.

13. Run Through Points

Signaller

If a rail vehicle runs through a set of points, you must ensure that a Signals Maintenance Representative inspects the points and confirms they are safe before resuming normal operations.

GR06 Conditions Affecting the Network

1. Principles

This rule unit is aligned with the following KiwiRail Fundamental Operating Principles:

- **Principle 1** - Rail personnel must take all possible steps to ensure their activities are carried out in a safe manner.
- **Principle 3** - Before any rail vehicle moves, it must have an authority to move that clearly indicates the limits of that authority.
- **Principle 5** - Rail vehicles must be prevented from entering or moving if the railway infrastructure integrity is suspected of being in an unsafe state and/or line obstructed.
- **Principle 6** - Rail vehicles must be prevented from moving if their integrity or compatibility is unsafe or suspected to be in an unsafe state.

2. Purpose

To prescribe the rules for responding to a Condition Affecting the Network.

3. Reporting and Responding

3.1 Reporting

Rail Personnel

You must report the conditions that affect the safety of operations in the network to the Train Controller.

When there is a rail incident, you must:

- immediately report any rail incident to the Train Controller
- act on the instructions given by the Train Controller.

If necessary, you must attempt to stop any rail vehicles approaching the affected area safely:

- using emergency hand signals, or
- broadcasting on radio channel 1.

Train Controller

You must record the reported Condition Affecting the Network:

- in the Access Provider’s Incident Reporting System, and
- on the train control diagram.

NOTE

In consultation with the Network Control Manager, elevating a Condition Affecting the Network to a major incident may be necessary.

NOTE
You must apply any additional instructions that are specific to the reported event.

3.2 Responding

Train Controller
When receiving a report of a Condition Affecting the Network, you must:

- immediately stop any rail vehicles in the affected line section
- prevent rail vehicles from approaching the affected line section
- tell any Rail Personnel in the location
- protect the affected section of line.

4. Warning Rail Vehicles

Train Controller
When you need to warn rail vehicles, you must:

- warn the Operators about the Condition Affecting the Network
- ensure the Operators acknowledge and understand the Condition Affecting the Network warning.

If normal communication channels are unavailable or not working correctly, you must tell the affected Operators about the Condition Affecting the Network by any means available.

Operator
You must acknowledge and comply with the Condition Affecting the Network warning.

5. Damaged or Obstructed Lines

Rail Personnel
You must immediately tell the Train Controller if you have reason to believe that the Condition Affecting the Network may cause damage or obstruction of the line because of:

- a severe weather event, or
- an earthquake, or
- from any other cause.

You must attempt to prevent any rail vehicle from approaching the damaged or obstructed line.

IMPORTANT
It must not be assumed any obstruction has been detected by track circuits. In axle counter areas the obstruction will not be detected.

Ganger
If necessary, you must arrange for inspections and provide track clearance to the Train Controller to authorise the resumption of normal operations.

Train Controller
Until the obstructed line is reported as safe, you must:

- stop rail vehicles (if required)
- apply emergency protection to protect the site
- tell the Network Control Manager about the Condition Affecting the Network.

Network Control Manager
You must immediately tell the Area Infrastructure Manager (or delegate) of the Condition Affecting the Network warning.

5.1 Flooded Areas

Operator
At any depth, if flood water is flowing and likely to dislodge the ballast or has dislodged ballast, you must:

- stop your rail vehicle
- wait further instructions from the Train Controller

When flood water is stagnant (not flowing), operating conditions are dictated by the level of the flood water as shown in the Table: *Flood Water Operating Conditions*

Table: Flood Water Operating Conditions

Flood Water Level	Operating Conditions
Below the bottom of the rail head	Normal working
To the top of the rail head	Maximum operating speed is 10 km/h
Above the top of the rail head	Stop the rail vehicle and wait further instructions from the Train Controller

6. Livestock

6.1 Livestock On or Near the Line

Operator
You must report to the Train Controller if any livestock is on or near the line.

You must attempt to stop the rail vehicle if there is a possibility of a collision with livestock.

Train Controller
When large livestock has been reported on or near the line, you must:

- tell all Operators of approaching rail vehicles of the Condition Affecting the Network
- tell the Operators of passing rail vehicles to reduce speed to 25 km/h while passing the reported location
- call out a Ganger to assist in removing the livestock.

Ganger
When livestock is on or near the line, you must remove the livestock without putting yourself at risk.

6.2 Livestock Struck

Train Controller
When livestock has been struck, you must tell:

- the Ganger of the location of the struck livestock, and
- the Operating Company's Service Manager.

Operator
When livestock has been struck, you must tell the Train Controller:

- of the location of the livestock
- if the livestock is alive or dead (if known).

You must provide a report to your manager noting the conditions of fences and gates at the location.

7. Fires on Rail Vehicles

7.1 Stopping the Rail Vehicle

Train Controller
If you are told of a fire on a rail vehicle, you must:

- remove power to any overhead line equipment, if applicable
- protect the affected and adjacent lines, if necessary
- tell the Emergency Services
- get details about the fire from the Train Crew
- tell the Network Control Manager
- maintain communication with Train Crew.

IMPORTANT
Refer to **KiwiRail Tunnel Emergency Management Plans** for instructions on fires in tunnels.

Operator
When a fire occurs on a rail vehicle, you must attempt to stop clear of:

- tunnels
- bridges
- platforms (unless the stopping point is clear of structures/buildings)
- other locations where:
  - Emergency Services cannot access
  - passengers cannot disembark
  - the fire is a danger to buildings or other structures.
- towns by a distance of at least one kilometre if there are Dangerous Goods on the train.

Once you have stopped and secured the rail vehicle, you must tell the Train Controller.

7.2 Locomotive Fire

Locomotive Engineer
If the fire is on a locomotive:

- shut down the locomotive
- isolate the battery, if necessary

- if it is safe, attempt to extinguish the fire and/or isolate the rail vehicles.

8. Lineside Fires

Rail Personnel

You must report any fire adjacent to or within the railway corridor to the Train Controller.

Train Controller

You must:

- tell all Operators of approaching rail vehicles of the Condition Affecting the Network
- warn all Operators approaching the fire of the risk to rail vehicles
- stop all rail vehicles from entering the location where the fire has been reported
- tell the Emergency Services.

Operator

If a fire is observed, you must:

- if necessary, attempt to stop the rail vehicle clear of the fire, and
- tell the Train Controller about the fire.

Train Controller

If the fire has affected the line, you must gain assurance from the Track Maintenance Representative that it is safe for rail vehicles before returning the line to normal operations.

Operator

If you cannot contact the Train Controller and encounter a track gang, you must stop the rail vehicle and tell the Ganger about the fire.

DANGER

Be aware of the danger from Overhead Electrical Lines.

9. Track Misalignment

Rail Personnel

You must report the location of any track misalignment to the Train Controller.

Train Controller

You must:

- tell all Operators of approaching rail vehicles of the Condition Affecting the Network
- stop all rail vehicles from entering the reported location where the track misalignment is located
- tell the Track Maintenance Representative to investigate.

You must only resume rail vehicle movements when the Track Maintenance Representative advises that it is safe.

You must tell all affected operators of any temporary speed restrictions imposed and record them in the Access Provider’s Speed Restriction System.

10. Weather Conditions

Train Controller

You must act on any information on severe or adverse weather conditions received from:

- Rail Personnel
- weather forecasters
- local authorities
- local river, wind, or flood monitoring sites
- other agencies
- the public.

When you become aware of severe or adverse weather conditions, you must ensure that the continued operation of rail vehicles is safe.

10.1 Notification

Rail Personnel

You must immediately report any severe or adverse weather conditions that may affect the safety of operations to the Train Controller.

Network Control Manager

On receipt of severe weather advice or information, you must tell the Area Infrastructure Manager or their delegate of the severe weather condition.

You must:

- issue a Level 1 Severe Weather Warning to all Train Crews using the conditions section of the speed restriction system, and
- notify Rail Operating Companies' Service Managers (via text messaging).

Train Controller

You must:

- verbally tell Operators of rail vehicles in the area, and
- endorse the train control diagram.

WARNING

Severe weather may cause flooding, obstructions to the line, track damage, slips or washouts.

Area Infrastructure Manager

You (or your delegate) must arrange for the inspection of the track (if warranted) and tell the Train Controller when it is safe for normal speed running (Level 2 Adverse Weather Restriction only).

Train Controller

You may lift the Level 1 Severe Weather Warning on receipt of:

- advice from the Area Infrastructure Manager (or their delegate), or
- receipt of the lifting of the weather warning notification from a Weather Service provider.

You must endorse the Level 2 Adverse Weather Restriction Clearance Certificate on the train control diagram and update the Network Control Manager on the situation.

Network Control Manager

You must:

- arrange for any notified conditions and/or special bulletins concerning the weather conditions to be cancelled, and
- notify affected Rail Operating Companies' Service Managers of the lifting of Level 2 Adverse Weather Restriction.

10.2 Restrictions

Area Infrastructure Manager

When notified of a Level 1 Warning, you (or your delegate) must assess the need for increased inspections and tell all affected Rail Personnel under your control.

You may also declare a Level 2 Adverse Weather Restriction or close the line if the line is damaged or obstructed.

10.3 Application of Restrictions

Network Control Manager

If the information received indicates multiple events in an area, you must:

- impose a Level 2 blanket 40 km/h speed restriction for all rail vehicles, or
- suspend the movement of all rail vehicles pending inspection.

You must tell the Area Infrastructure Manager (or delegate) of the action taken as soon as possible.

When you impose a Level 2 Adverse Weather Restriction, you must notify affected Rail Personnel by issuing a bulletin.

Area Infrastructure Manager

When Level 1 Severe Weather Warning or Level 2 Adverse Weather Restrictions are active, you (or your delegate) must:

- monitor weather conditions, and
- tell the Network Control Manager and any relevant Rail Personnel of the arrangements.

10.4 Removal of Warnings and Restrictions

Train Controller

You must only lift the Level 1 Severe Weather Warning or Level 2 Adverse Weather Restriction on receipt of the following:

- advice from the Area Infrastructure Manager (or their delegate), or
- the lifting of weather warning notification from a Weather Service provider.

When lifted, you must:

- endorse the Level 2 Adverse Weather Restriction Clearance Certificate on the train control diagram, and
- update the Network Control Manager on the situation.

Area Infrastructure Manager

You (or your delegate) must only remove Level 1 Severe Weather Warning or Level 2 Adverse Weather Restrictions when the severe weather conditions have stopped.

You must:

- inspect the track (if warranted)
- tell the Network Control Manager when it is safe for normal speed running (Level 2 Adverse Weather Restriction only).

Network Control Manager

Once confirmed, you must:

- arrange for any notified conditions and/or special bulletins concerning the weather conditions to be cancelled, and
- notify Rail Operating Companies Service Managers of lifting the Level 2 Adverse Weather Restriction.

11. Derailments

Rail Personnel

You must immediately tell the Train Controller if you know of a derailment.

Train Controller

You must:

- tell all Operators of approaching rail vehicles of the Condition Affecting the Network
- stop other rail vehicles from entering the affected area
- notify the Network Control Manager and the Area Infrastructure Manager or Ganger
- act in accordance with **TO05 Damaged and Disabled Rail Vehicles**.

If a rail vehicle has derailed, rerailed, and continued, you must stop other rail vehicles from entering the affected area until a track inspection has occurred.

Network Control Manager

You must tell the Rail Operating Company's Service Manager of the derailment details and appoint a Rail Incident Controller to be dispatched to the derailment site.

11.1 Moving Rail Vehicles

Rail Personnel

You must ensure a Rolling Stock Representative inspects all rail vehicles involved in a derailment.

Rolling Stock Representative

You must report the results of the inspection to:

- the Rail Incident Controller, and
- the Train Controller.

Train Controller

Until the Rail Incident Controller reports the obstructed line as safe, you must only allow rail vehicles to pass over the affected section of the line under the direction of the Area Infrastructure Manager.

Before moving, you must ensure the rail vehicle(s) is inspected and certified safe to run by the Rolling Stock Representative.

You must ensure that any rail vehicles either involved in the derailment or attached to the derailed rail vehicles are held for inspection.

11.2 Reporting Derailment Damage

Rail Personnel

You must provide a report to your immediate manager for any damage to:

- track
- interlocking
- signalling equipment
- points
- traction equipment (where applicable)
- rail vehicles (including derailment).

12. Major Incident

12.1 Responding to a Major Incident

Train Controller

If a Condition Affecting the Network is declared to be a major incident, you must ensure any rail vehicles approaching and travelling within the affected area have been:

- warned, or
- stopped, and
- protected, if necessary.

You must tell the Network Control Manager about the Condition Affecting the Network.

Network Control Manager

When you have been advised of the Condition Affecting the Network, you must:

- locate and appoint a Rail Incident Controller, where appropriate
- tell affected Rail Operating Company's Service Managers
- send a text notification to affected stakeholders
- update affected stakeholders at scheduled intervals.

12.2 Managing the Major Incident

Rail Incident Controller

When managing the rail response to a major incident, you must control the incident site in accordance with the **KiwiRail Incident Management Procedures**.

GR07 Overhead Line Equipment

1. Principles

This rule unit is aligned with the following KiwiRail Fundamental Operating Principles:

- **Principle 1** - Rail personnel must take all possible steps to ensure their activities are carried out in a safe manner.
- **Principle 5** - Rail vehicles must be prevented from entering or moving if the railway infrastructure integrity is suspected of being in an unsafe state and/or line obstructed.
- **Principle 6** - Rail vehicles must be prevented from moving if their integrity or compatibility is unsafe or suspected to be in an unsafe state.
- **Principle 9** - People must be protected from the hazards associated with electrical infrastructure.

2. Purpose

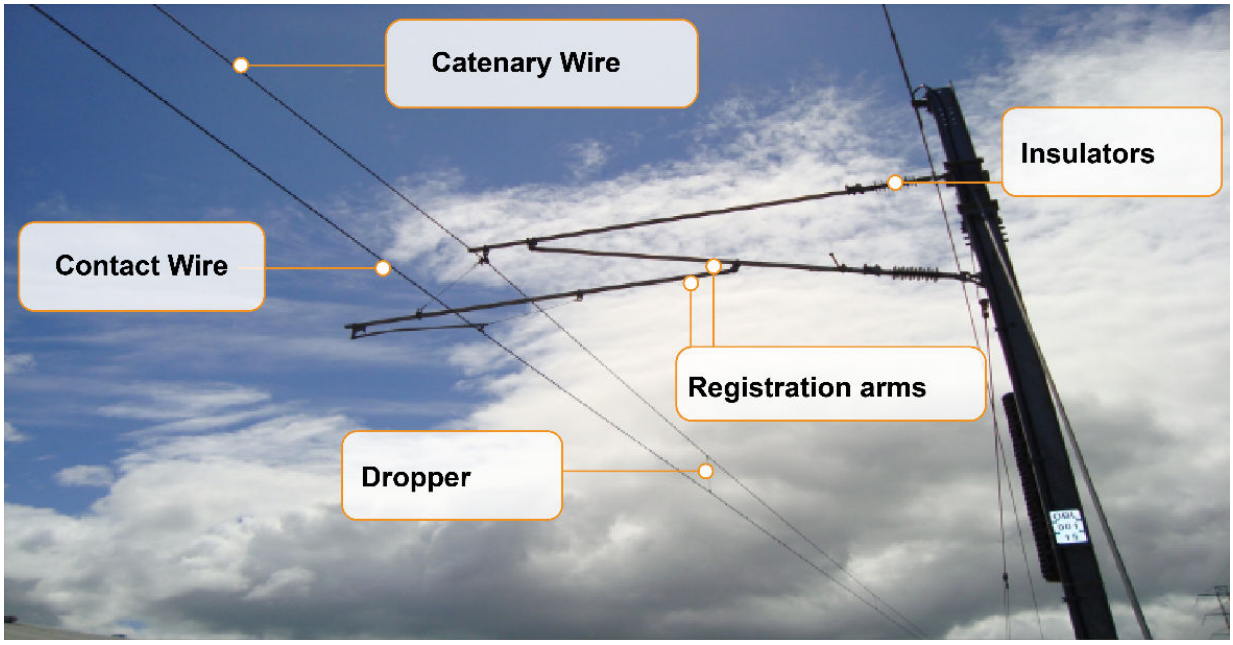
To prescribe the rules for safe working in Overhead Line Equipment (OLE) areas in the network.

3. General

Rail Personnel

You must:

- always treat OLE as live
- keep a safe distance if you are near exposed electrical equipment and wires in the railway corridor
- keep yourself, tools, equipment, and materials at a safe distance from exposed OLE.



Overhead Line Equipment (OLE)

IMPORTANT

All road-mobile cranes or similar non-track machines working in electrified areas must be fitted with warning notices in accordance with **National Rail System Standard 6**.

3.1 Minimum Approach Distance

Rail Personnel

You must:

- not enter the two metre Minimum Approach Distance
- ensure any tool or implement you are carrying or holding does not encroach into the two metre Minimum Approach Distance
- ensure that no part of a road-mobile crane or similar non-track machine or load enters the four metre Minimum Approach Distance.

You must only enter the Minimum Approach Distance when the:

- OLE has been confirmed as isolated and earthed, or
- work is performed under the direction of a Competent Traction Person.

DANGER

No person other than a Competent Traction Person is allowed to be on the roof of a vehicle directly under OLE.

Table 1: Minimum Approach Distance

Situation	Minimum Approach Distance - No Permit Required	Permit To Work Required
Personnel or material being carried	At least two metres from the nearest live equipment always	Closer than two metres from the nearest live equipment – an Electrical Safety Observer may also be required
Operating mobile or adjustable crane, excavator, forklift truck etc.	At least four metres from the nearest live equipment always	Closer than four metres from the nearest live equipment – an Electrical Safety Observer may also be required
Vehicles and loads working along the railway corridor immediately adjacent to or Hi-Railing under the overhead wires	Vehicle and load do not exceed 3.2 metres in height	Vehicle and load exceed 3.2 metres in height
Scaffolding erection, alterations, or disassembly	At least eight metres from the nearest live equipment always	Closer than eight metres from the nearest live equipment – an Electrical Safety Observer may also be required

CAUTION

When life is at stake in an emergency rescue situation, and if the victim is at least one arm's length (750mm) away from the OLE, rescue may proceed with the reduced safe distance instead of the normal two metres.

Other than the allowances detailed in Table 2, if it is necessary to enter the Minimum Approach Distance, you must get an EF201 Permit to Work near railway power lines from a Competent Traction Person.

Table 2: Minimum Approach Distance Allowances

#	Allowance
1	Standing on the floors of flat top wagons and open wagons or wagon footsteps or handbrake levers, provided that the floors, footsteps, or brake levers are not more than 1 metre above rail level. It is prohibited to stand on loads in any of these wagons.
2	Giving a stop signal while standing on the floor or footsteps or handbrake lever of a wagon if nothing is being held in the hands. In cases other than giving a stop signal, no part of the body, or anything being held, is to project higher than the top of the head while standing on the floor of a wagon, footstep or handbrake lever.
3	Work may be performed on the running board of a locomotive, provided that no part of the body, or anything being held, projects above the top of the head.

3.2 Tools and Equipment

Rail Personnel

You must:

- not use metal ladders, metal trestles, metal measuring tapes or metal measuring staffs
- only use non-conducting measuring tapes and survey poles constructed from approved insulating material
- carry long items horizontally to avoid the potential striking of the OLE.

WARNING
The use of 5 metre retractable metal pocket tapes is permitted. Still, they must not be used higher than two metres above rail level.

Under all circumstances, you must get a EF201 Permit to Work if a road-mobile crane or similar non-track machine, or its load, is to enter the Minimum Approach Distance.

3.3 Safe Working in Electrified Areas

Rail Personnel

When working outside the Minimum Approach Distance, you must not:

- allow any object to come close to or touch live OLE
- direct a liquid stream near the OLE or other electrical equipment.

DANGER
Coming close to or in contact with the OLE can cause shock or burns resulting in injury or death.

DANGER
When using a hose or water blaster, you must ensure the stream of water or spray does not contact OLE.

3.4 Working Under OLE

Rail Personnel

You must not work under live OLE when on:

- rail vehicle loads
- the roof of rail vehicles
- the top of buildings
- verandas
- under any overbridges, or
- overhead structures.

CAUTION
You can stand on wagon decks and diesel locomotive running boards, but no tools or equipment must be above head height.

3.5 Retrieving Items from OLE

Competent Worker

Before removing items on or near the OLE, you must isolate the OLE power supply.

CAUTION
Only an authorised Competent Worker can retrieve items on or near the OLE.

4. OLE Locations

Rail Personnel

1500 DC OLE applies to the Wellington Metro area. You must read this rule in accordance with **Local Network Instruction L4**.

25,000 AC OLE applies to:

- the Auckland Electrification Area, which includes all lines between Pukekohe and Swanson excluding the Mission Bush Branch, and
- Palmerston North and Te Rapa, NIMT.

You must read this rule in accordance with **Local Network Instructions L1.1, L1.2, L2 and L3.1**.

CAUTION
Additional live wires should be noted and assessed for risk for the tasks undertaken before work commences.

Manager/Supervisor

You must ensure:

- all Rail Personnel working in the electrified area, whether on a permanent or temporary basis, are conversant with the instructions for working in OLE locations, and
- have completed the Electrical Awareness training or are under the direct supervision of a Competent Worker.

4.1 Isolation and Restoration of OLE Supply

Train Controller

You must make a record on the train control diagram of the isolation and restoration of the OLE.

4.2 Rail Vehicles Entering Isolated Locations

Train Controller

You must prevent electric rail vehicles from entering the isolated OLE section by:

- setting signals at stop and/or
- arranging protection for unsignalled routes.

You can authorise non-electric rail vehicles to enter the isolated OLE section.

You must ensure that rail vehicles fitted with pantographs do not enter or leave an isolated OLE section unless Train Crew has:

- lowered all pantographs, and
- isolated the pantograph air supply.

If the motive power of any approaching rail vehicle is not known before it enters an isolated OLE section, you must:

- stop the rail vehicle, and
- confirm the motive power.

5. Damaged OLE

DANGER

Unauthorised persons must not interfere with electrical equipment.

DANGER

Only Competent Traction Personnel are permitted to work on electrical equipment, attempt to remove foreign bodies such as rope or debris from live wires, remove any conductor, which has fallen, or remove or touch anything which is touching a fallen conductor.

Rail Personnel

You must immediately tell the Train Controller or the nearest Officer in Charge if you see or suspect any faults or damage with the OLE, such as:

- disconnected wires
- fallen or broken wires
- excessive flashing in any place
- fires on or near the OLE.

You must attempt to stop any approaching rail vehicles if there is immediate danger.

Operator

If you observe or believe any OLE has become damaged or defective, you must stop the rail vehicle clear of the damaged equipment.

If necessary, you must:

- immediately protect the obstruction
- tell the Train Controller
- prevent any Rail Personnel from encountering defective OLE.

Train Controller

When a report of damaged or defective wires or fires in the OLE is received, you must initiate a response to a Condition Affecting the Network in accordance with **GR06 Conditions Affecting the Network**.

6. Reporting Damaged Pantographs

Rail Personnel

If you observe that a pantograph is damaged or foul of the OLE, you must:

- attempt to stop the approaching motive power unit and tell the Operator
- tell the Train Controller or the nearest Officer in Charge immediately.

Train Controller

You must not permit rail vehicles to pass over the OLE section until permission has been received from a Competent Traction Person.

6.1 Damaged Pantograph

Rail Personnel

You must arrange for a Competent Traction Person to inspect the OLE:

- when a pantograph is damaged, or
- a train overruns a termination limit.

Operator

When the in-cab controls cannot lower a damaged pantograph, and the motive power unit is under the OLE, you must only move once a Competent Traction Person has confirmed sufficient clearance.

IMPORTANT
Only a Competent Traction Person can clear a pantograph that has become entangled in the OLE.

7. Accident or Derailment

Train Controller

If there is an accident or derailment in an OLE location, you must initiate a Condition Affecting the Network in accordance with **GR06 Conditions Affecting the Network**.

Rail Personnel

When an accident or derailment damages the OLE, you must only move or contact the OLE when a Competent Traction Person arrives.

Train Controller

If the OLE has been made dead, you must only resume normal operations when the Competent Traction Person has given clearance.

8. Loss of Overhead Power

Rail Personnel

You must tell the Train Controller when a loss of overhead power to a section of line has been reported.

Train Controller

You must tell:

- the applicable Officer in Charge when a loss of overhead power to a section of line has been reported, and
- the Operations Support Representative to request a Competent Traction Person to investigate the cause.

Competent Traction Person

When you investigate, you must:

- tell the Train Controller and the Officer in Charge the probable period during which rail vehicles cannot run, and
- make progress reports until completion.

9. Rescue Operations

Rail Personnel

CAUTION

Additional live wires should be noted and assessed for risk for the tasks undertaken before work commences.

If the victim is closer than 750mm, you must make an emergency call to the Train Controller and seek advice.

In all other emergencies, you must only attempt rescue operations after the Competent Traction Person confirms it is safe.

10. Tunnel Inspection

Competent Worker

When an inspection is to be made, you must arrange to isolate the OLE and use the EF16/25 Form to notify affected workers.

WARNING

An inspection of the tunnel roof must not be made in an OLE location, nor an inspection wagon used in a tunnel while the OLE is live.

11. Electric Services Limit Board

Competent Worker

When changing the operating limits for electric services, you must place a temporary Electric Services Limit board during planned work.

Train Crew

Electric services may only pass the Electric Services Limit board when:

- authorised by the Competent Worker, and
- all pantographs are entirely down and secured, and
- a diesel motive power unit tows the unit.

DANGER

Passing the Electric Services Limit board with the pantograph up may result in electrocution or injury to Rail Personnel.

GR08 General Responsibilities

1. Principles

This rule unit is aligned with the following KiwiRail Fundamental Operating Principles:

- **Principle 1** - Rail personnel must take all possible steps to ensure their activities are carried out in a safe manner.
- **Principle 2** - Rail vehicles must maintain safe separation via an appropriate method of signalling and/or operation.
- **Principle 6** - Rail vehicles must be prevented from moving if their integrity or compatibility is suspected to be unsafe.
- **Principle 8** - Safe separation must be maintained between people, plant, and rail vehicles.

2. Purpose

To prescribe the responsibilities of Rail Personnel when applying the Rail Operating Rules.

3. General

Rail Personnel

You must undertake your duties in line with the responsibilities of your role.

When carrying out a rail safety task or monitoring rail safety communications, you must take the necessary action to eliminate the risk of being distracted.

In addition to the rules, you must always refer to any **Local Network Instructions** for the area you are undertaking rail safety work.

You must always carry out the responsibilities of your role in accordance with the role description and the associated rules for the task.

3.1 Alerts

Rail Personnel

Before undertaking your duties or rail safety work, you must:

- ensure that you have read and understood all relevant alerts by the effective date of the alert
- tap or click on the Mark as Understood button to acknowledge you understand the alert
- contact your Team Leader, Supervisor or Manager if you do not understand the alert.

3.2 Security of Keys

Rail Personnel

You must:

- not allow security keys out of your possession unless authorised by your manager
- not transfer keys between personnel without approval from the KiwiRail Security Key Administrator
- immediately return any keys that are no longer required to your manager
- immediately report any lost keys to your manager.

NOTE
Operating companies must maintain a register of key issues.

Table 1. Security Key Types

Key Type	Used for
100	General Purpose
TW	TWC hand operated points on main lines and loops
AS	Automatic Signalling equipment
AS1	TWC main line points - North Auckland Line
AS2	Main line points - Rotorua Branch
AS3	TWC main line points - Murupara Branch
AS4	TWC main line points - PNGL, MNPL, Wairarapa Line, SOL
AS5	TWC main line points - Main North Line
AS6	TWC main line points - Main South Line and Branches
AS7	TWC main line points - Midland Line, Stillwater - Ngakawau Line
AS8	TWC main line points - Hokitika Branch

4. Officer in Charge

4.1 Primary Responsibilities

Officer in Charge
You are responsible for:

- the security and protection of all offices and station buildings
- the efficient discharge of duties for all Rail Personnel under your leadership
- the general working of the station being carried out in accordance with the rules
- giving personal attention to the shunting and dispatch of rail vehicles and all other operations which affect the safety of the line whenever possible
- promptly advising the Train Controller of the arrival and departure times of all stopping trains and the times of passing of trains which are not timed to stop.
- any special instructions for working that portion of the line on which they are engaged.

4.2 Rail Vehicles Safe to Run

Officer in Charge
At starting stations and at stations where rail vehicles are shunted, you must observe that rail vehicles are correctly arranged, coupled and in a safe running condition.

Before rail vehicles start, you must closely observe each rail vehicle to ensure that doors and bond chains are secured and the necessary rail vehicle lights are in place.

You must observe all rail vehicles leaving the station.

You must observe that the correct rail vehicle lights are carried at intermediate stations. If possible, monitor the condition of rail vehicles and remedy any defects that may be noticed.

When a Train Examiner Operations is on duty and present, you must obtain an assurance from them that they have completed an examination of the originating train before authorising its departure.

4.3 Rail Personnel Leaving Station Unattended

Officer in Charge
At stations in a controlled area, you must only leave your station unattended when permission from the Train Controller is provided.

5. Train Crew

5.1 Duties of Train Crew

Operator
You must ensure that Train Crew duties are correctly performed.

Train Crew
You must act under the direction of the Operator of a rail vehicle and promptly obey their instructions.

5.2 Calling and Repeating Signal Indications

Operator
When there are signal calls for signals affecting the running of rail vehicles, you must:

- call the signal call to yourself when driving alone
- repeat any signal call by Rail Personnel trained in signal calling in the cab.

Rail Personnel
If trained in signal calling, you must call out the signal call applicable to the signal displayed.

5.3 Looking Back and Being Vigilant

Train Crew
When working locomotive-hauled trains, you must always look back frequently to note the safety of the train when leaving or passing:

- a station
- a level crossing
- Rail Personnel on or near the line.

You must be prepared to act upon signals shown by Rail Personnel or others.

6. Train Controller

6.1 Primary Responsibilities

Train Controller
You must maintain a good knowledge and understanding of the:

- Rail Operating Rules
- Rail Operating Procedures
- Rail Operating Manuals
- Rail Operating Code
- Train Control Instructions
- Local Network Instructions.

You must know the access agreements, priority guidelines, and the day’s timetable, including train(s) function, priority, and connections.

You must decide to alter the work of trains(s) in response to late running or missed connections to minimise customer delays and effectively utilise rail vehicles.

When commencing duty, you must:

- read and understand all bulletins, instructions, and information relevant to the shift, and
- acknowledge this by signing on duty by endorsing your signature and duty times on the train control diagram.

6.2 Knowledge of Network

Train Controller

You must be familiar with local conditions by physically reviewing the area you control (preferably from the cab of a locomotive).

IMPORTANT

When dealing with issues, knowledge of external conditions is essential to a Train Controller, as situations can be better visualised when described by other Rail Personnel or Train Crews.

6.3 Duties of a Train Controller

Train Controller

You must undertake the following duties:

- direct the movement of all rail vehicles, rearranging crossings when necessary, and record the movements on the train control diagram
- liaise, when necessary, with Operators concerning train crewing and locomotive requirements
- tell adjacent Train Control areas how connecting services are running and supply details of the locomotive, Train Crew, train weight and length. Obtain similar information concerning incoming trains
- maintain contact with Roving Rail Operators for shunting of trains and ensure en route shunts are carried out
- ensure that arrangements agreed upon with Rail Operating Company’s Customer Service Centres are carried out
- keep a check on the Operator's hours to see that they are kept within the prescribed limits
- consult with Operators for prior permission concerning any variations proposed to Train Crew runs and for any variation proposed to locomotive runs
- ensure arrangements are made for train failures, train mishaps, signal/communications failures, or other emergencies that may arise
- initiate and manage a response to recover situations as safely and rapidly as possible
- report all incidents/irregularities that occur on a shift in the access provider’s Incident Reporting System
- keep the Network Control Manager promptly informed of all significant outages, and all incidents and irregularities that must be notified to internal management and/or external agencies
- plot appropriate bulletins and details of extra and cancelled rail vehicles on diagrams
- issue and update bulletins, the bulletins in effect summary and update temporary speed restriction information when authorised.
- authorise maintenance access on the day, including the movement of on-track equipment and the issue of Mis.60 permits

- contact emergency services and other agencies when requested by Rail Personnel
- contact Fire and Emergency NZ for any report of potential or actual leaks, spills of, or damage to hazardous goods
- maintain train performance information by entering times and delay reasons into reporting systems.

7. Rail Protection Officer

7.1 Primary Responsibilities

Rail Protection Officer

Based on the level of competency held, you are responsible for:

- protecting individuals, and
- multiple worksites.

7.2 Competency for Role

Rail Protection Officer

You must only perform the work for which you are qualified in Table 1.

Table 1: RPO Qualifications

RPO Qualification	RPO Responsibility	Protection Level to Use
Individual Train Detection (ITD)	Responsible for self and/or a limited number of others as Observer.	Must seek a higher level of protection if ITD is unsuitable for the location.
RPO Yards (RPO-Y)	Protection in non-interlocked areas.	Rail Personnel.
Track Protection Basic Machines (TPBM)	Responsible for the operation of Hi-Rail vehicles under the protection of a suitably qualified person.	Must be protected by a qualified person (RPO).
Site Protector (902)	Responsible for managing a single worksite within multiple worksites protected by an RPO.	Must be protected by a qualified person (RPO).
RPO Hi-Rail (RPO-H)	Hi-Rail Vehicle Driver.	May use: • Blocking • Track Warrant (if qualified) • Foul Time
RPO Multi-Site Protector (RPO-M)	May use various protection systems for multiple worksites within one major work area protected.	May use: • Compulsory Stop Protection • Blocking • Lockout Zones (if qualified) • Track & Time Permit (Mis.60) • Track Warrant (if qualified).
RPO CSP Boards (RPO-C)	Protection in interlocked areas for a single worksite.	Using: Compulsory Stop Protection.
RPO Blocking (RPO-B)	Responsible for protection in interlocked areas for a single worksite.	Using: Blocking.
RPO TWC Protection (RPO-T)	Responsible for protection in interlocked areas for a single worksite.	Using: Track Warrant Control.
RPO Foul Time (RPO-F)	Responsible for protection in interlocked areas for a single worksite.	Using: Foul Time.
RPO Lock Out Zone (RPO-L)	Responsible for protection in interlocked areas for a single worksite.	Using: Lock Out Zones.
RPO Block of Line (RPO-60)	Responsible for protection in interlocked areas for a single worksite.	Using: Track & Time Permits.
RPO Blocking Operations (RPO-BO)	Responsible for protection in interlocked areas for training or investigations.	Using: Blocking.

