



KiwiRail Glossary

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Term	KiwiRail Definition
Absolute Signal	A signal that must not be passed at “Stop” without the authority of the Train Controller or the Signaller as provided for in the Rail Operating Rules and includes Block Entry and Station Entry Boards.
Access Agreement	An agreement between Access Provider and Rail Operating Company pursuant to which the Access Provider grants the Rail Operating Company certain access rights to the National Rail System.
Access Provider	The entity who controls the use of that railway line by rail operators (including that person if it is also a rail operator), whether or not that person engages rail personnel to exercise or assist in exercising that control on its behalf; but does not include those rail personnel.
Access Provider Interoperability Standards <i>(APIS)</i>	Suite of documents progressively replacing the National Rail System Standards.
Access Rights	A Rail Operating Company's rights to use the Rail Network as granted to it by the Access Provider under an Access Agreement.
Accident	An occurrence associated with the operation of a rail vehicle or the use of railway infrastructure or railway premises that causes: <ul style="list-style-type: none"> a. the death of, or serious injury to, individuals; or b. significant damage to property.
Active Level Crossing	A level crossing protected by flashing lights, bells, gates and/or barriers.
AC Traction Power	25kv Alternating Current power supplied to rail vehicles by overhead line equipment.
Addressee	The person to whom an operating authority is addressed and who is responsible for ensuring the provisions of the authority are carried out.
Adhesion	The grip which the wheels have on the rail dependent upon weight, track condition and weather conditions before wheel slip occurs.
Adjacent	Near to, close to, or beside.
Advance Caution	A flashing yellow aspect which informs the Operator that the next signal may be at caution.
Adverse Weather Restriction <i>(Level 2)</i>	A speed restriction of 40 km/h or less applied to specified areas due to a high risk of weather conditions damaging the line.
Air Brake	A braking system activated by change in air pressure.
Alarms <i>(Level Crossings)</i>	Flashing lights and bells used to protect active level crossings.
Alert	A method of communicating amendments to the Rail Operating Rules Framework elements via the Shield application.
All Concerned	Everyone who is involved or affected in the rail corridor. All persons that apply or come in contact or requires the information to undertake the task safely.
All Trains Stop Board <i>(ATSB)</i>	A board requiring all rail movements to stop before the board unless permission to pass has been received from the person responsible for movements.
Alternative Train Crewing <i>(ATC)</i>	Single person crewing of locomotive hauled main line trains where the required standards of radio communication, operating procedures and locomotive cab environment are met.
Approved Code of Practice <i>(ACOP)</i>	Sets out WorkSafe's expectations about how to comply with legal duties imposed by HSWA and regulations. Other practices can be used to achieve compliance as long as the level of health and safety is equivalent to, or higher, to that in an ACOP.
Approved Rail Vehicle Register	A central register of rail vehicles authorised to run on the National Rail System.
Area Infrastructure Manager	The person authorised to manage track, structures, and infrastructure maintenance matters for a specified area.
Arrival Road	A road on which trains berth upon arrival at a yard.

Term	KiwiRail Definition
ASP Channel	A radio system channel used for shunting which is usually low power and short range.
Aspect (Signal)	A visual indication of the status of a signal that is given to the Operator.
Assistant Rail Protection Officer (ARPO)	Responsible for ensuring the directions of the Rail Protection Officer are carried out.
Assisting Motive Power Unit	A motive power unit other than the train motive power attached to the train.
Auckland Metro Area	All electrified lines between Pukekohe and Swanson.
Audio Shunting Procedures (ASP)	ASP consists of dedicated UHF channels used to communicate between Rail Operators, shunt locomotives and yard offices. Channels are allocated in terminal local instructions.
Australasian Level Crossing Assessment Model (ALCAM)	An assessment tool which may be used to: <ul style="list-style-type: none"> • identify key potential risks at level crossings (both road and pedestrian crossings); • assist in the prioritisation of crossings for upgrades; and • support the decision making process when determining the most cost effective treatments.
Authorise	To give formal written, spoken, or signalled authority for an action.
Authorised Fencing	Safety barrier systems authorised for use to create a physical structure between rail personnel and a running line.
Automatic Coupler	A fitting on the end of a rail vehicle that engages with a compatible fitting on an adjacent rail vehicle to connect the vehicles together.
Automatic Emergency Brake	Automatic maximum application of the air brake system, when there is an occurrence of: <ul style="list-style-type: none"> • a vigilance device is not correctly acknowledged by the Operator • train overspeed • low MR air pressure • brake pipe continuity failure, such as a burst hose or train parting • passenger emergency brake activation • ETCS/TMS system activation • signal trip activation
Automatic Signal	A signal where the aspects are controlled by the presence of trains only. (Except where provided with emergency replacement).
Automatic Signalling Rules (ASR)	The prescribed safe working rules which support the application of Automatic Signalling.
Automatic Track Warning System (ATWS)	A system that gives trackside personnel audible and/or visible warning of the approach of trains independently of the signalling system.
AVI	Automatic vehicle identification.
Axle Counter	A form of train detection equipment provided in place of the conventional track circuit.
Axle load	The weight on any one axle (tonnes).
Backshunt	A dead-end line leading off a loop line or siding to allow shunting movements to be carried out without fouling adjacent roads. The end of the back shunt may be defined by a concrete or timber buffer stop.
Bad Order	Status used to describe equipment requiring repairs and therefore unsuitable for operational use.
Bad Ordered – Run to Destination	Equipment that is Bad Ordered (requiring repairs) and able to run to its intended destination. At destination the equipment is tagged to be sent to the nearest depot for repair.
Balise	ETCS transponders between the rails at various locations to electronically provide information to the train to read as it passes over it.
Ballast	A layer of crushed stone to form the track bed on which the railway sleepers and track are laid.
Banner Indicator	Visual instrument which supplies information about the next signal in advance when there is restricted sighting distance on this signal.
Barrier Arm	A boom that when lowered blocks vehicular access to the railway corridor at a level crossing. See also Half Arm Barriers
Base Call	A radio communication to Train Control either by voice or using Selcall tones (ID).

Term	KiwiRail Definition
Bedplate	A metal plate that provides a firm fastening of the rail to the sleeper.
Berth	To stop at a predetermined location usually in a yard, siding, or at a space alongside a station platform.
Bi-Directional	Allowing for normal travel in either direction according to the infrastructure and system of safe working in use.
Bleeding Off	Releasing air from brake cylinders of vehicles by a wire attached to a release valve to allow the vehicle to move freely.
Blind Side	This is the side of the train away from the platform, or the opposite side from which the Locomotive Operator will be located. "Blind side" or "offside" applies to the side from which hand signals are not normally given.
Block Entry Board	Provided in Multi-line areas where a signal is not available and defines a boundary for entry into a Block Section.
Blocking	The process of using a Mis.71 track occupancy cross check with signal blocking to establish a protected work area.
Block of Line	A planned shutdown of a section of railway line for larger scale maintenance work.
Block Section	A single section of line between the limits of two adjoining interlocked stations / junctions in either single or multi-line area. The Block Section will permit movements in either both directions or one direction only.
Board (Signal)	A sign posted adjacent to the tracks to provide instructions or information to Operators when the use of a signal is not considered appropriate.
Bogie	A twin or triple axle wheelset. The term bogie is also a historical term used as a unit of measurement when piloting a movement.
Bogie Vehicle	A rail vehicle with two twin axle wheel sets.
Bond Wire	Wire connection between two adjoining rails carrying signalling or traction power.
Brake	A system fitted to rolling stock to decelerate, stop, and inhibit further movement. May be achieved by means of: <ul style="list-style-type: none"> • compressed air, • hydraulic fluid, • by rheostatic or regenerative braking on wheelsets with electric traction motors, or • manually through mechanical means for handbrakes.
Brake Application	The term used to describe the act of applying the air brakes, generally accomplished by the operation of the automatic brake valve on a locomotive.
Brake Control Unit (BCU)	Coordinates the rail vehicle's independent braking systems to calculate the braking force corresponding to the deceleration requested by the Operator and to distribute the braking force between the different braking systems and between the individual vehicles.
Brake Cylinder	Rail vehicle component that converts air pressure to force, which typically presses a block/pad against the wheel tread or disc producing a retardation force.
Brake Test	A specific test to check the operation of air brake systems on a group of rail vehicles, or a complete train. Types of tests may vary for different types of rail vehicles.
Braking Distance	The distance a vehicle will travel from the point when its brakes are fully applied to when it comes to a complete stop.
Branch Line	A secondary line diverging from a more significant Main Line.
Breaking-Up	A term in common use for dismantling a train.
Bridle	A "D" shaped steel guard which is placed over the hook on standard buffers to keep it from lifting.
Buffer Lock	Where the buffer faces pass each other, this is usually caused by a violent bump on a sharp curve. Buffer locked vehicles are unlocked by propelling at slow speed over a short switch thus shunting the vehicles on to two roads.
Buff Force	Longitudinal in-train compressive buffer forces.
Bulletin	A controlled instruction printed, typed, or handwritten, issued by those authorised in the <i>Rail Operating Rules</i> . See also Information Bulletin and Special Bulletin .
Cab	The area of a motive power unit or track vehicle containing the operating controls and crew workstations.
CABA	Compressed Air Breathing Apparatus. A type of respiratory protection equipment that provides breathable air from cylinders containing compressed air.
Call Sign	<ol style="list-style-type: none"> 1. A two or three-letter sequence notified by bulletin, used at worksites as a call sign for all communications to and from a Rail Protection Officer (RPO), Operators or Drivers of Hi-Rail Vehicle and Train Control 2. Used to clearly identify the radio user by role or allocated call sign to rail vehicle/road vehicle.

Term	KiwiRail Definition
Cant	The vertical distance (in millimetres) by which one rail is physically raised above the other and measured between the surveyed running edge of the two rails.
Carriage Train	A train comprising a locomotive towing passenger carriages.
Car Yard	The railway yard primarily used for storage and maintenance of passenger carriages.
Catch On	To attach vehicles when the couplers have been brought together and a positive connection has been made.
Catch Points	Placed on main lines as required to intercept runaway rail vehicles.
Catenary Wire	Wire attached to the contact wire at regular intervals by vertical wires known as "droppers" or "drop wires" and is supported by Traction masts at regular intervals.
Caution <i>(Signal aspect)</i>	An aspect which advises the train crew that the next signal may be at stop, requiring the train to stop. It is indicated by a single yellow aspect.
Certified	The status or condition pursuant to a certificate being issued by a Competent Worker.
Certified <i>(Rail Personnel)</i>	Rail personnel whose manager has issued a staff 23 authorising full and final certificate of competence identifying the duties to which training and certification has been provided.
Check Rail	Rails placed in track inside the running rail at particular locations which comes into contact with the back of the wheel flange to guide wheels through points and crossings and on curves.
Clamp	A method of securing the switch blade to the rail to prevent movement.
Clear and Complete	Where the last vehicle of a train consist has passed beyond a location.
Clear <i>(a signal)</i>	To set a signal with a proceed indication.
Clear Time	The time specified to be off and clear of the Danger Area.
Communication Devices	A device that supports effective communication between competent workers.
Competency Management System <i>(CMS)</i>	A system that identifies, assesses, and develops the skills and knowledge of workers.
Competent Traction Person	A Traction person who is deemed competent by Traction Engineering to carry out work on the KiwiRail Traction system. It is usually a Traction Electrician or Traction Line mechanic who can isolate the Overhead Line Equipment and issue a Permit to Work.
Competent Worker	A worker who is qualified and certified as competent to carry out the relevant task.
Complete	Where the train consist has not parted.
Compulsory Stop Protection	A sequence of boards used to protect rail personnel and rail vehicles from entering a planned protected work area.
Condition Affecting the Network	Any damage, obstruction or condition that affects the safety of operations in the network.
Conditions of Carriage	Elements of the contract between a carrier of freight or passengers, and the consignor, consignee or passenger.
Consist	The set of rail vehicles connected together which form the train.
Construction Zone	A work zone that is temporarily not part of the rail network, with all rail vehicles prohibited from operating on track in rail mode. The work zone is isolated from the National Rail System and is required to have systems in place to prevent all rail vehicles from entering the zone.
Contact Wire	The wire which supplies power to pantographs, to power electric rail vehicles.
Continuously Welded Rail <i>(CWR)</i>	Any rail greater than 75m in length.
Controlled Network	All track where occupancy and movement by rail vehicles is under the control of the Access Provider.
Controlled Signal	A signal that is controlled directly by a Signaller or a Train Controller.
Convoy	A group of track vehicles not coupled but travelling closely together under a single occupancy authority.
Coordinated Incident Management System <i>(CIMS)</i>	New Zealand's official framework for coordinated incident management across responding agencies.
Couple	To join rail vehicles together.

Term	KiwiRail Definition
Coupled In Motion Weighbridge <i>CIMW</i>	Track mounted hardware clamped to the rail that reports rail vehicle weight, wheel impact and bearing data from each rail vehicle that passes over it.
Coupling Link	A bar shaped like a kidney with a hole in each end and used for attaching hook and pin drawgear together in place of a coupling hook.
Coupling Slack	Free play in the drawgear.
Cow Catcher	A device mounted at the front of a motive power unit to deflect obstacles on the track that might otherwise damage or derail it.
Crew Resource Management	A management system which makes optimum use of all available resources (equipment, procedures, and people) to promote safety and enhance the efficiency of rail operations.
Crisis	An emergency or unplanned event, announcement, disclosure or set of circumstances that threatens the safety or well-being of employees, customers, community and / or the integrity, performance, reputation, and survival of the organisation.
Crisis Management	Arrangements to manage emergency situations which require inter-agency support where the situation is beyond the normal manageable scale of operations.
Crisis Management Team <i>(CMT)</i>	Comprises executive management personnel from KiwiRail to provide the strategic response to any major incident impacting KiwiRail and / or any of its businesses.
Cross	To go past other train travelling in the opposite direction in single line areas by use of a crossing loop.
Crossing Loop	A running line, secondary to the main line, with entry and exit points connected to the main line, provided primarily for the crossing or passing of trains.
Crossover	A pair of switches either facing or trailing situated between two parallel tracks, allowing a train on cross from one track to the other.
Culvert	Pipe or box structure to transfer water flow across and beneath the tracks.
Cut In	<ol style="list-style-type: none"> To add vehicles to a train in the correct position, or To restore a piece of equipment to its functioning capacity, for example air brakes.
Cut Off	To lift the hook or disconnect the link between rail vehicles. See also Detach .
Cut Out	<ol style="list-style-type: none"> To remove a rail vehicle from a rake, or To disable the braking functionality on a rail vehicle.
Danger Area	<p>Unless a safe place exists or has been created, the danger area is:</p> <ul style="list-style-type: none"> all space within 4 metres horizontally from the centre of the nearest railway line, and any distance above or below these 4 metres.
Danger Stop Signal Board	<p>Danger Stop Signal boards are used in place of signals, to stop rail movements. They are either:</p> <ul style="list-style-type: none"> a circular disc painted red with a white border, or a rectangular reflectorised sign with red dot, white background and red border, or a reflectorised sign with red flashing light at top, secured to rail head.
Danger Zone	<p>The zone in which rail personnel may be struck by flying debris from:</p> <ul style="list-style-type: none"> couplers or transition heads breaking while catching on, or placed detonators exploding upon impact.
Dark Territory	Track where the system of safe working does not indicate the real-time position of rail vehicles.
DC Traction Power	Direct Current power supply to overhead traction equipment.
DED	Dragging Equipment Detection.
Defective Signal	A signal which fails to display the correct indication.
Delegate	A competent worker authorised and designated to act in place of another.
Depot	The maintenance and repair facility for rolling stock.
Depot Personnel Protection System <i>(DPPS)</i>	A system using personal cards or electronic keys to control derailleurs and shunting alarms. Also called DPS, Depot Protection System .
Derailer	A two position mechanical device attached to the rail. When seated over the railhead in the 'tripping' position it will deflect an unauthorised low speed movement off the rails resulting in an enforced derailment.
Derailment	An incident where one or more rail vehicle wheels leave the rail or track during railway operations.
De-stress	Artificial tensioning of rail to achieve the Design Neutral Temperature.

Term	KiwiRail Definition
Detach	To uncouple a rail vehicle from other rail vehicles.
Detectable	Rail vehicles able to reliably activate track circuits or axle counters.
Detonator	A device attached to a rail that explodes on impact, used to attract attention of rail personnel.
Detrain	The process of passengers leaving a train.
Detrainment Ramp	A ramp attached to a rail vehicle to facilitate emergency evacuation of passengers.
Diamond Crossing	A special track structure where two routes may cross each other but do not contain switches to allow for transferring from one line to the other.
Directing Signal	They are used in station limits to direct rail vehicles to the various platforms, sidings, or positions to which the signals apply and protect those lines to which they apply.
Direct Release Brakes	Braking system which uses a triple valve or direct release distributor, which allows the brake cylinder pressure on the vehicle to be fully vented as soon as the brake pipe pressure starts to increase.
Disabled Train	A train will be deemed disabled when it is unable to continue to the next station or set back to the station in the rear, unassisted or, the train has parted and cannot be re-coupled.
Ditch Lights	Small headlights located lower than the primary headlight on the front of a motive power unit to improve visibility.
Double Banking	A method of recovering a disabled train by taking portions of the train to the station in advance.
Double Berthing	When two or more trains are berthed at the same location.
Double Blocking	A method of applying a signal blocking control tag command on top of an existing control tag, noting the reason for the additional control tag.
Double Line	Two adjacent, parallel, running lines in which trains are generally permitted to travel in one direction only on each line.
Down Direction	Trains running away from Otiria in the North Island and away from Picton in the South Island are travelling in the down direction.
Draft Force	Longitudinal in-train tensile buffer forces.
Draftgear Slack	Movement in either direction in the draftgear rubbers and springs
Drawbar Pin	A round steel bar used to hold coupling links and hooks in standard drawgear and bring buffer faces together.
Drawgear	The actual coupling equipment between rail vehicles used to connect rail vehicles together.
Draw Hook	Attached to the standard buffer used for connecting vehicles together.
Drifting	Train operating technique when the throttle is closed and the track-train dynamics allow the train to move freely.
Driver	A qualified person authorised to operate Hi-Rail vehicles.
Duty Card	Role specific task instructions supporting a Triggered Action Response Plan (TARP).
Dynamic Braking	A method of applying a retarding force to the locomotive by using the traction motors as generators.
EAP	Employee Assistance Programme.
Ease Up	To bunch up vehicles and bring buffer faces together.
ECMT	East Coast Main Trunk line between Hamilton and Kawerau.
Effective Communication	Ability to successfully send, receive and understand information.
Electrical Safety Observer (ESO)	A competent worker who provides electrical safety observation for people and/or plant working close to traction and overhead power lines.
Electrical Safety Permit	The necessary authority required when working within the minimum approach distance for the following: <ul style="list-style-type: none"> • Scaffolding: Within 8 metres of overhead line equipment • Plant: Within 4 metres of overhead line equipment • People: Within 2 metres of overhead line equipment
Electric Multiple Unit (EMU)	A multi-carriage passenger car set which is electrically powered.
Electric Service	An electrically powered Motive Power Unit.
Electric Services Limits Board	A board which defines the operating limit for an electrically powered Motive Power Unit.

Term	KiwiRail Definition
Electronic Train Protection (ETP)	A train stop protection system designed to reduce the consequence of a signal passed at danger.
Emergency	An unplanned event requiring urgent action. The event might involve death or serious injury, health or safety effects, significant damage to property or infrastructure.
Emergency Brake Application	Maximum air brake application made when a rail vehicle must be stopped in the minimum distance possible using only the air brake system: <ul style="list-style-type: none"> • initiated by the Operator / Train Crew, or • by a rail vehicles emergency brake system or • a fault in the brake system such as rupture to the brake pipe, air hoses becoming disconnected.
Emergency Call Point (ECP)	Communication device located at some platforms which initiates a duress call when activated by a pushbutton.
Emergency Protection	A method of using either, or a combination of; signal blocking, TWACS blocking, detonator signals and danger stop signals to prevent rail vehicles from entering an obstructed section, or if already within the obstructed section, from colliding with the obstruction.
Emergency Services	Organisations that respond to and deal with emergencies when they occur, especially the ambulance service, the police, and the fire brigade.
Emergency Work	Any activity required to urgently restore property or infrastructure following an emergency or incident.
End of Train Marker	A red reflectorised disc or target attached to the rear of a train to indicate to rail personnel that the train is complete.
End of Train Signal	A Train End Monitor (TEM), taillight or end of train marker attached to the rear of a train to indicate to rail personnel that the train is complete.
E-Protect	E-Protect is a system on locomotives that uses GPS technology to monitor the speed of trains approaching Compulsory Stop Boards, and will penalty brake the train if it does not stop at the Compulsory Stop Board.
ETCS	European Train Control System. A signalling, control and train protection system using trackside and onboard components to relay information about a permitted movement authority i.e., speed, distance, and signal/track status ahead.
Facing Points	Points with the switch blades facing approaching trains.
Fault	A defect in a system, product or other change which may cause an error.
Feature	An item of railway infrastructure used to: <ul style="list-style-type: none"> • determine the limits to which a rail movement will set back to, or • to positively identify a railway location, and may include: <ul style="list-style-type: none"> • level crossings • points, • signals • meterage pegs • boards • tunnel portals • traction poles • station platforms • bridges
Fire and Emergency New Zealand (FENZ)	A combined urban and rural fire and emergency services organisation with a mandate to provide a wide range of services for communities.
First Responder	The Access Provider's or Rail Operating Company's representative on site at a rail incident until a Rail Incident Controller (RIC) arrives.
Fishplate	A flat piece of metal used to connect adjacent rails in a railway track.
Fixed Signal	Colour-light signals classified according to use, are as shown in the Network Signals, Indicators and Boards Manual .
Fixed Work Site	A static work site within a Protected Work Area.
Flag	A fabric coloured red or green used during daylight hours as a signal to train crew when there are not fixed signals for the indication.
Flange	Projecting edge or rim on the inside circumference of the steel rail wheels and is designed to keep the wheel on a rail.

Term	KiwiRail Definition
Flat (Wheel)	An area of uneven wear on a rail wheel, typically caused by skidding of that wheel. Significant material build up immediately behind the skidded area is also common.
FLB	Flashing lights and bells.
Fleet Number	A unique letter and digit combination supplied by the Access Provider that forms the registration number of the vehicle registered to operate on the Controlled Network.
Fouling Point	The point whereby a vehicle standing on one converging line would come into contact with a vehicle on the other line.
Foul Time	A method of using time and distance to create a time and distance buffer to allow occupation of the track.
Fresh Air Damper	A valve that prevents flow of external air into the passenger saloon. Used for tunnels, trackside smoke, or low outside temperature.
Frog	V-shaped section of rail where another rail joins.
FRONZ	Federation of Rail Organisations of New Zealand.
Fulfil/Fulfilled	To complete the instructions on, and associated activities for an authority.
Ganger	A Track Maintenance Representative who is responsible for leading, supervising, and efficient operation of a workgroup, to achieve track maintenance, repair and renewal work.
Gas Monitor	Devices used in tunnels to monitor gas levels on non-electric trains and during infrastructure activities.
Gauge (Track)	The distance between the rails on the railway track.
Gradient	A measure of the rate at which the railway is inclined (rising or falling).
Graduated Release	Air brake system where the brake pressure is applied and released such that the magnitude of braking force is proportional to reduction in brake pipe pressure.
Guard	Historical reference for a person who is designated a Guard on Heritage trains who is responsible for the welfare and comfort of passengers, assists with emergency working on a passenger train and is in charge of any Ticket Collectors on the train. See also Train Manager .
Half Arm Barrier (HAB)	A boom that when lowered blocks vehicular access to the railway corridor at a level crossing.
Hand Brake	A manually operated mechanical device used to secure a rail vehicle against movement. Also called a Park Brake .
Hand Over	The transference of information, duties and responsibilities from the person being relieved to the person relieving them.
Hand Points	Points not interlocked and worked manually by an independent lever adjacent to the points.
Hand Points Board	Are provided at Warrant Stations and Sidings, where the main line points are hand points.
Hand Signal	A signal given by hand movements, with or without a flag or light.
Hand Signaller	Rail Personnel who are appointed to hand signal trains in place of fixed signals.
Hazard	A source or a situation with a potential to harm someone (injury or illness) or damage property or the environment.
Head End Display Unit	A visual display unit which displays information transmitted from the Train End Monitor . Information includes: <ul style="list-style-type: none"> • brake pipe pressure • last vehicle movement • battery condition • tail-light on or off.
Headlights	White lights fitted at the front of trains to provide visibility for the train crew and to improve the visibility of trains.
Heat Season	Normally runs from Summer Daylight Saving through to the return to NZ Standard Time, to manage the adverse effects of heat on the track, by use of Temporary Speed Restrictions applied when heat thresholds are exceeded on track which has been identified as at-risk of buckling.
Heavy Track Equipment	Infrastructure items of equipment which under normal conditions cannot be removed from the track manually by two rail personnel.
Heritage Operator	An Operator with access rights granted in accordance with the Common Access Terms to the NRS pursuant to a Heritage Access Agreement operating trains which include Heritage Vehicles.
Heritage Participant	A Heritage Operator or a Heritage Vehicle Provider.

Term	KiwiRail Definition
Heritage Train	A train operated principally for the enjoyment of the journey, or the equipment used and hauled by a locomotive that is a Heritage Vehicle, or consists principally of Heritage Vehicles, and that does not run to a regular scheduled timetable.
Heritage Vehicle	A vehicle that meets the requirements of the Heritage Vehicle and Train Management document.
High Column Switch Stand	Are provided at main line to loop and loop to siding points as shown on an S & I Diagram. These switch stands incorporate coloured target indicators and a points operating mechanism.
High-Visibility Clothing	Approved mandatory clothing to be worn on the rail network as defined by the Access Provider. See also Personal Protective Equipment .
Hi-Rail Vehicle (HRV)	A road vehicle or plant fitted with retractable flanged rail wheels, and can be driven on the road or rail.
Horn	An audible device used to sound a warning.
Imperfectly Displayed Signals	Signals displaying any aspect not described in the rules or signals not showing an authorised aspect.
Incident	An unplanned event that poses a threat to personnel, customers, community, environment, property or disruption to operations.
Incident Controller	A FENZ, Police, Ambulance or Civil Defence person appointed, or performing, the duties of Incident Controller (Emergency Services) at the site of an occurrence.
Incident Control Point (ICP)	Dedicated facilities and other emergency provisioning located at select tunnel portals.
Individual Train Detection (ITD)	ITD is a safe working system, but it will not prevent rail vehicles from entering an occupied section of track. It is a safety check process which may enable workers to access specific areas of the rail corridor as individuals, or as groups.
Information Bulletin	Applies for the day(s) of operation only and includes information on general daily instructions, running of extra trains and maintenance work. Also called Daily Information Bulletin or DIB
Insulated Joint	Permanently bolted rail joints containing bonded insulation materials wrapped around each contacting surface to electrically isolate them and are used for identifying trains within a track circuit.
Interlocked Junction	A junction between single and multi-lines or a crossover between multi-lines.
Interlocked Station	A station or portion of a station with automatic signalling provided to prevent conflicting movements.
Interlocking	Points and signalling that are electrically or mechanically arranged so as to prevent conflicting train movements from being operated.
Intermediate Board	A notice board provided between stations or sidings to identify a location which may be used to designate a limit for a track warrant.
Intermediate Brake Test	The process of ensuring that the brakes at the rear of the train respond correctly when applied and released.
Intermediate Section	Any portion of a Block Section divided into two or more intermediate sections. Entrance to subsequent intermediate sections is governed by an Intermediate signal.
Isolate	Disconnect or remove all possible sources of energy supply.
Isolated (Traction)	Disconnection of a section of overhead contact line from the source of electrical energy, either in an emergency or to facilitate maintenance.
Isolation Mode	When the excavator has been made safe and the isolation bar engaged disabling the excavator from movement in any direction or swing. When other mobile plant, not fitted with an isolation device, is in neutral or park and the handbrake applied.
Issue	To give or send copies of authorities, warnings, notices, and publications to affected rail personnel by voice, radio, hand delivery or electronic means.
Johnsonville Line	The principal line between Wellington and Johnsonville.
Joint Operating Plans (JOP)	Local operating instructions issued jointly by all parties for specifically designated sidings, depots or terminals with rail activity involving more than one party.
Kupe Mobile Controller (KMC)	A mobile controller which uses radio and GPS technology to identify locomotive and HRV location, and is linked to locomotive Tranzlog event recorder systems.

Term	KiwiRail Definition
Level Crossing	Any place where: <ol style="list-style-type: none"> i. a railway line crosses a road on the same level, or ii. the public is permitted to cross a railway line on the same level, and includes a bridge used for both rail vehicles and road traffic on the same level.
Level of Authority	There are three levels of authority for passing signals at stop: <ol style="list-style-type: none"> i. Written: This authority is issued via a Pro-forma form known as a Safe Working Authority (SWA). ii. Verbal: This authority is issued verbally. iii. Self-Authorisation: This authority can be made by the Operator after completing the prescribed actions.
Licensed Practitioner	A person who holds the appropriate Licence to Operate.
License To Operate (LTO)	A licence issued by the Access Provider or a Rail Operating Company authorising individual staff to carry out rail related tasks within the classifications specified on the licence.
Light Inspection Vehicle (LIV)	Hi-Rail Vehicles less than 2 tonnes gross weight.
Light Locomotive	A locomotive running singly, or in multiple without any other rail vehicles attached.
Light, Non-Powered Hand Tools	A tool that can be carried and easily removed by one person and is not powered by compressed air, gas, electricity, hydraulics, explosive charge, or internal combustion engine.
Light, Powered Hand Tools	An internally powered tool that can be carried easily by one person, without mechanical assistance.
Limit of Authority	The limit of authority may be defined by a sign, a signal capable of displaying a stop indication, or a specific kilometrage point on a line. It defines the location to which trains may travel under a proceed authority or the limits of a work on track authority.
Line	The physical tracks on which trains run and includes Main lines, branch lines, crossing loops and sidings.
Linehaul	That part of the transport task that is between terminals (distinguishing from the aggregation and distribution at each end of the journey).
Line Impassable	Planned Work that requires the closing of the track to normal train movements for a period of time to allow for maintenance work to be carried out.
Line Manager	A person with direct managerial responsibility for a particular employee.
Lineside	The area immediately adjacent to the railway tracks, within the rail corridor.
Line Speed	The maximum speed permitted on a section of line.
Linkspan	The movable section of track that links the KiwiRail sidings at Wellington and Picton with the Interislander ferries operating the route. The linkspan itself pivots to allow for tidal movement and for the correct alignment of the track between the linkspan and the ferry deck.
Loading Gauge	The area that defines the maximum height and width dimensions of rail vehicles and their loads to ensure that they can pass safely through tunnels, under bridges, and keep clear of platforms, trackside buildings and structures.
Local Circuit Shunt	A train that services one or more customer sidings which is resourced and operated from a single terminal.
Local Network Instructions	Local operating instructions issued by the Access provider or a Rail Operator applicable to stations, terminals or sidings where Rail Personnel may operate Rail Operators facilities (as defined by S&I Diagrams or the Rail Operating Rules and Procedures) forming a part of, or interfacing with the Controlled Network.
Local Operating Procedures	Local operating instructions issued by a Rail Operating Company applicable to Operator Controlled Territory outside of the Controlled Network.
Location	A place in the network with a designated name, identification number, or signalling reference.
Locked and Socked	Hand points that have been secured in one position and had a cover placed on the hand lever to indicate this.
Lock Off	The method of removing your padlock from a lock frame symbolising that you are accounted for in a safe place.
Lock On	The method of placing a padlock to a lock on frame in a dedicated location.
Lock On Frame	A device which individually assigned padlocks are attached to, to signify that the padlock owner is occupying the Danger Area within a Protected Work Area.
Lock Out	A safety procedure used to ensure that machines, equipment, and infrastructure are properly shut off and not able to be started up again before the completion of maintenance or repair work.

Term	KiwiRail Definition
Lockout Zone	Areas where signals are interlocked with a local control to prohibit train movements in order to allow maintenance staff to work safely under protection of the interlocking.
Locomotive	Self-propelled rail vehicle used for hauling or propelling other rail vehicles.
Locomotive Engineer	Rail personnel qualified by examination and certified to drive and be in charge of a locomotive. See also Operator .
Loop	See also Crossing Loop .
Loose Train	A train that does not run on a fixed schedule, but as directed by the Train Controller e.g., shunt, work train, test train.
Low Loader	An on-rail self-propelled lowbed transporter whose primary use is for the cartage or transportation of heavy construction materials and construction vehicles to worksites along the railway line.
Low Loader Pilot	A competent person authorised to pilot a Low Loader rail vehicle in an area for which they are familiar.
Low Visibility	Any condition that does not allow rail personnel to view the distance required to work safely.
Main Line	The principal line.
Maintaining Braking	A braking method where a train is brought down a grade on a single brake application which combines with 3/4 dynamic brake and holds the train speed steady.
Maintenance Crossing	A formed crossing other than a public or private level crossing provided for maintenance access.
Maintenance Provider	A person who provides maintenance services for any railway infrastructure or rail vehicle.
Major Incident	An incident assessed as having a potentially major impact on the network, human life, property, or the environment.
Major Work Area	A large work area consisting of multiple work sites.
Management of Change (MOC)	A systematic approach to handle and facilitate changes while ensuring the continued engagement and safety of the workforce throughout the process.
Mandatory Relief	A requirement for Rail Personnel to be relieved in all cases where they have been involved in: <ul style="list-style-type: none"> • a serious operating irregularity, • an occurrence which is likely to cause any stress on the Rail Personnel, or • a situation where rail personnel are suffering from fatigue / illness or showing signs of or exposed to high gas levels.
Marker Disc	A fixed red disc that is provided on single-unit signals as the second and lower light below the multi aspect or searchlight.
Marker Light	A fixed red light that is provided on single-unit signals as the second and lower light below the multi aspect or searchlight.
Marker Posts	Are provided in TWC areas between the Station Warning Board and the Arrival Signal or Facing Points Indicator at some Warrant Stations as a train handling aid. Indicates the start of track circuiting that may or may not change the aspect displayed on the Arrival Signal or Facing Points Indicator.
Mark Up	<ol style="list-style-type: none"> 1. Fluorescent paint sprayed on a vehicle to identify a defect, or 2. The process of using fluorescent paint to identify significant features, especially post incident.
Marshal	To arrange rail vehicles in the order required for operational or safety reasons.
Material / Inspection trolley	A trolley which is not mechanically driven, and which needs two persons or more to remove it from the track. It includes overhead inspection trolleys.
Maximum Speed	The maximum speed permitted for the rail vehicle(s) being operated over a section of line.
Meterage Pegs	Concrete marker posts placed at half kilometre intervals beside the track.
Metro	Refers to suburban commuter rail service areas and/or operations.
Metro Service Operator (MSO)	An organisation duly authorised to operate suburban commuter rail services on the Controlled Network. Currently Auckland One Rail in the Auckland Metro Area and Transdev in the Wellington Metro Area.
Midland Line	The principal line between Greymouth and Rolleston.
Minimum Approach Distance (MAD)	The safe working distance that provides rail personnel protection when working on or in the vicinity of energised lines and equipment.
Minimum Operating Standard (MOS)	A set of essential requirements or guidelines that organisations or systems must adhere to in order to function adequately. These standards ensure a baseline level of performance, safety, or security.
MNL	Main North Line: The principal line between Picton and Christchurch.

Term	KiwiRail Definition
MNPL	Marton New Plymouth Line: The principal line between Marton and New Plymouth.
Mobile Communications Device	A device that can transmit and/or receive voice, video, or computer data. Such devices include but are not limited to mobile telephones, two-way radios, smart devices, and portable internet appliances.
Mobile Plant	Any self-propelled machinery under the direct control of an operator, may include Hi-Rail Vehicles, Diggers, Excavators, Dump Trucks etc.
Mobile Plant Controller (MPC)	The competent worker responsible for controlling Mobile Plant within a worksite.
Mobile Radio	A radio mounted in a motive power unit, track vehicle or motor vehicle and has an externally mounted antenna or handheld radio.
Mobile Track Maintenance Vehicle (MTMV)	Rail-bound maintenance vehicles / machines for example (but not limited to) Tampers, Regulators, Track Stabilisers, Ballast Cleaner, Low Loaders, Track Evaluation Car, Track Undercutter, Self-Propelled Cranes. Generally, operate track circuits so must comply with signals. May be operated singly or as a group.
Mobile Worksite	A mobile worksite is used for Work Trains, Mobile Track Maintenance Vehicles and Hi-Rail vehicles required to operate at various locations within a protected work area.
Monitor	To check, supervise, observe critically, or record the progress of an activity, action, or system on a regular basis to identify change.
Motive Power Unit (MPU)	A vehicle which has the power to move rail vehicles and includes locomotives, electric shunts, railcars, shunting tractors and multiple units.
Motive Power Unit Test	A series of tests required to ensure the Motive Power Unit's brakes are operating correctly.
Movement	The operation of rail vehicles on rail.
MSL	Main South Line: The principal line between Lyttelton and Invercargill.
Multi-Line	Where there is more than one main line between two stations.
Multiple	Two or more.
Must	The word indicates that a statement is mandatory.
NAL	North Auckland Line: The principal line between Westfield Junction in Auckland and Otiria.
National Rail System	The rail network comprising the Controlled Network and Operator Controlled Territory. It includes all Track unless specifically defined as unavailable for rail activity, owned or managed by the Access Provider (currently KiwiRail), including Private Sidings and all Retained Track. (Note: The National Rail System is intended to encompass all rail network segments used for rail activity but excludes private railways and private or leased sidings not listed by Bulletin or in the Rail Operating Rules and Procedures as available for the use of rail traffic feeding on or off the Controlled Network.
National Rail System Standards (NRSS)	Standards adopted by KiwiRail and all Operators using the National Rail System.
Near Miss	An event that has the potential to do harm to a person or the environment if it had actually eventuated.
Network	See also Controlled Network .
Network Controller	The party who is delegated by the Access Provider (currently KiwiRail) to authorise the occupancy and movement of trains and other rail vehicles, including notification of special conditions in respect of the whole or part of the Controlled Network. This includes, where the context so requires all Network Control Managers, Train Controllers, Signal box Controllers and Network Access Planners.
Network Control Manager (NCM)	The Network Controller's manager responsible for making operating and safe working decisions relating to the control of trains and access to the rail network.
NIMT	North Island Main Trunk: The principal line between Wellington and Auckland.
Non-Destructive Testing (NDT) Vehicle	A rail vehicle which uses ultrasound to locate damaged or broken rail.
Non-Interlocked Area	Stations, terminals, yards, and sidings where points and signalling are hand operated and are not arranged to prevent conflicting movements.
Normal Direction	The direction that trains travel on a section of track for all regular movements. For double track, the normal direction would usually follow the left hand running rule where a train travels on the left hand track.
Normal (Points)	When points are set to guide a rail vehicle through the preferred route of those points. Normal can be ascertained in the field when the "N→" attached to the sleeper at the point of switching, is pointing towards the closed blade.

Term	KiwiRail Definition
Notifiable Injury or Illness	A specified serious work-related injury or illness that must be notified to the health and safety regulator.
Not to Run (NTR)	Equipment that is bad ordered and is prohibited from running on the network until the fault is rectified and the bad order status cleared by an authorised Rolling Stock Representative.
NZTA	New Zealand Transport Authority, the primary regulator for the rail industry. Also called Waka Kotahi .
Obscured Signal	A signal which is not wholly visible to the Operator or Train Crew.
Observer	A competent worker appointed to protect another person or group that is occupying the track. See also Rail Safety Observer and Electrical Safety Observer .
Obstruct	To make a track section unsafe for the passage of trains.
Obstruction	Any defect in the track or track formation, or obstacle on, above or adjacent to the track which will prevent the safe passage of trains.
Occupancy	The presence of rail vehicles and/or rail personnel on the track.
Officer Controlling Train Running	A qualified person authorised to modify rail operating rules, issue bulletins and Alerts.
Officer in Charge	The designated competent worker who is in charge for the time being of the station, siding or other place. Unless provided for in the Local Network Instructions, if there is no competent worker designated, the first arriving Operator at an unattended location will be duly designated.
Off-Track	To remove infrastructure vehicles and/or rail personnel from the railway line and track protection.
OLE	Electric Overhead Line Equipment. Catenary, contact wire and associated equipment.
Onboard Personnel	Rail Personnel who assist with the running of a passenger train and who are responsible for passenger welfare.
On Job Training (OJT)	Placement of a person who has completed introductory training with a competent, licensed practitioner in actual operations to carry out critical tasks to gain exposure to a range of experiences that gain confidence to full competence.
On-Track	The process by which rail vehicles and/or rail personnel are able to access the railway line.
Open Channel	A radio system where any radio under the coverage area of the repeater will hear all calls on that repeater.
Operations Support (155)	Personnel who support Train Controllers and Network Control Managers in managing to restore the rail network to a safe operational mode.
Operator	The Locomotive Engineer, or other personnel authorised to operate a motive power unit or Mobile Track Maintenance Vehicle (MTMV), who is in charge of the train or machine group. This meaning is specific to the Rail Operating Rules and associated documents; not to be confused with National Rail System Standards (NRSS) or Railways Act 2005 .
Operator Controlled Territory	All track outside the Controlled Network and forming a part of the National Rail System where an Operator or other designated Rail Participant is responsible for the occupancy and movement of Rail Vehicles (Note: This will include Retained Track, Track owned by the Crown or a Crown entity, and designated private sidings).
Operator Disabled Train	The Operator who is in charge of the disabled train or MTMV.
Operator Relief Train	The Operator who is in charge of the relief motive power unit.
Out	The common phrase of alerting the other party that the conversation is ended, and you don't require a response.
Out Foul	Vehicles left standing in a siding or loop but obstructing an adjoining siding or running line.
Out of Use	Non-operational equipment that is still connected to the infrastructure.
Out Short	1. Pull out a short distance and stop, or 2. A physical verification of a successful catch on.
Pandrol Clip	A resilient fastening system used with a bedplate on some timber/composite sleepers and with a cast in housing/pad on concrete sleepers.
Pantograph	An apparatus mounted on the roof of an electric rail vehicle to transfer power from the contact wire.
Park Brake	Means by which an unattended or unpowered vehicle can be secured against unplanned movement. The retarding force is usually applied either by spring or ratchet handwheel through the brake mechanism to press the brake block/pad to the wheel tread or disc.
Parting	When the forces of run-in or run-out become excessive, causing a failure of the drawgear and a disconnection between rail vehicles.
Pass	To move alongside and in front of other train travelling in the same direction in single line territory.

Term	KiwiRail Definition
Passenger Information Display System (PIDS)	The signage onboard passenger services advising the next stop, etc.
Passenger Operator	A person designated to assist a Train Manager with; comfort of passengers, emergency working on a passenger train and any ticket collections on the train.
Passive Level Crossing	A level crossing protected by signage, pedestrian mazes, chicanes, or bollards.
Pedestrian Crossing	A crossing at substantially the same level as a rail track that is used by pedestrians to cross the track.
Permanent Speed Restriction (PSR)	A permanently imposed reduction of line speed for the specified area of track, that may be for any reason.
Permissible Speed	The maximum speed permitted by the signalling system for the area.
Permissive Signal	A signal that is normally controlled by the passage of rail traffic and may be passed without the authority of a Train Controller or Signaller as provided for in the Rail Operating Rules.
Permit Issuer	The competent person authorised to issue Site Safety Permits.
Permit to Dig	The necessary authority required to break ground within the railway corridor.
Permit to Enter	The necessary authority required for working in, or impacting on KiwiRail rail operational areas, unless working under direct KiwiRail supervision.
Personal Protective Equipment (PPE)	Anything used or worn by a person (including clothing) to minimise risks to the person's health and safety. This may include respiratory protective equipment, hearing protection, eye protection, protective clothing, and safety harness systems.
Person in Charge	The designated competent worker who is in charge for the time being of a task, safe working procedure, workgroup or incident.
Person Responsible for Movements	The competent worker who has overall responsibility for the movements of rail vehicles within their jurisdiction.
Phonetic Alphabet	A standard word with standard pronunciation representing each letter of the alphabet, used to 'spell' a word to clarify a verbal communication.
Pilot	A qualified person who ensures the safety of a rail vehicle by guiding the Operator.
Piloting	Ensuring the safety of a movement by providing line of sight and range of vision for the Operator.
Planned Work	Any activity, which may obstruct the line for more than 120 minutes duration and is planned at least one day in advance.
Platform	A flat area alongside a railway track, often raised to be level with carriage doors or the wagon bed providing convenient access to rail vehicles.
Platform Train Interface (PTI)	The relationship between the carriage and the station platforms. The width of the gap, and platform height can vary dependant on local conditions.
PNGL	Palmerston North to Gisborne Line: The principal line between Palmerston North and Gisborne.
Points	A mechanical installation enabling rail vehicles to be guided from one track to another, such as at a junction or where a siding branches off. also known as turnout.
Points Operator	A competent worker authorised to manually operate motor points.
Portable Radio	A low-wattage handheld radio.
Power Van	A rail vehicle (carriage or van) with a diesel-powered generator to provide power source for lighting and heating or cooling power of a passenger train.
Proceed	The authorised planned direction of the movement.
Proceed Authority	An authority that allows rail traffic to enter and occupy a portion of line and proceed in the forward direction.
Proceed Indication	Any signal indication other than stop.
Propel	To push rail vehicles with a motive power unit.
Protected Work Area (PWA)	Section of line or lines where rail personnel are carrying out activities using an approved protection method. Fixed and/or mobile work sites will operate under the direction of a Rail Protection Officer in a PWA.
Protection	The means used to prevent rail vehicles from entering a worksite or other portion of track, or to prevent road or pedestrian traffic entering a level crossing.

Term	KiwiRail Definition
Protection Method	<p>Specific systems authorised for use to provide protection to rail personnel and rail vehicles:</p> <ul style="list-style-type: none"> • Track Warrant • Track and Time Permit (Mis.60) • Compulsory Stop Protection • Lockout Zones • Blocking • Emergency Protection • Work within Non interlocked Area • Foul Time
Protection Planner	A role which reviews requests for track occupations to ensure that the optimum and least disruptive protection method is applied. The person performing this role may possess a different job title than Protection Planner.
Provincial Passenger Service	A long-distance rail commuter service that extends beyond a city's metro area.
Radio	Primary method of communication with Train Control, used for shunting and communication with Train Crew.
Radio Link	A two-way communication link or system using radio.
Railcar	Self-propelled vehicle designed to carry passengers.
Rail Corridor	See also <i>Railway Corridor</i> .
Rail Defect	A surface or internal fault in the rail which may affect the serviceable life of the rail.
Rail Foot	Area of the rail which comes into contact with the bedplate transferring the weight of rail vehicles through to the track sleeper.
Rail Head	Area where the rail and wheel interface occurs.
Rail Incident Controller <i>(RIC)</i>	A competent person appointed, or performing, as designated by the Access Provider / Operator the duties of the Rail Incident Controller (RIC) at the site of an incident. Rail Incident Controllers are in charge of all rail personnel on site as per NRSS / 5.
Rail Mode	When Mobile Plant has its retractable steel wheels placed on the railway tracks and can move in either direction.
Rail Network	A combination of track and other infrastructure controlled by KiwiRail.
Rail Operating Code	A Rail Operating Company's document incorporating operating instructions associated with the operation of their trains and terminals on the National Rail System. (Note: Each Rail Operating Company may issue their own Rail Operating Code, and where necessary the RORP may mandate certain sections or clauses for designated Rail Personnel working on the National Rail System — refer to NRSS/7.)
Rail Operating Rules Framework <i>(RORF)</i>	KiwiRail's Rail Operating Rules & Procedures, Codes, Manuals, Local Network Instructions and associated documents.
Rail Operating Rules & Procedures <i>(RORP)</i>	Documents incorporating operating rules, procedures, and instructions applicable for all Rail Personnel operating trains and carrying out maintenance activity on the National Rail System.
Rail Operations Centres	Operational facilities in Wellington and Auckland centred around Train Control and may include key stakeholders such as metro operators and council transport representatives. These centres are known as the Wellington Rail Operations Centre (WROC) and Auckland Rail Operations Centre (AROC).
Rail Operator <i>(Job Title)</i>	A qualified person who assists the Locomotive Engineer/Remote Control Operator with the movement and general working of the train.
Rail Participant	Any organisation or person responsible for the provision or maintenance of rail services.
Rail Personnel	Employees, agents, contractors, or voluntary individuals engaged for the purposes of carrying out rail activities.
Rail Protection Officer <i>(RPO)</i>	The person with overall responsibility for providing rail protection for the Protected Work Area (PWA).
Rail Protection Personnel	Rail Protection Officers, Assistant Rail Protection Officers and Site Protectors who have the authority to provide rail protection for the Protected Work Area.
Rail Safety Observer	A person reporting to the Site Protector, responsible for observing a single activity. For example, ensuring an activity working behind authorised fencing does not obstruct the running line.

Term	KiwiRail Definition
Rail Safety Work (RSW)	<ul style="list-style-type: none"> • driving or moving rail vehicles, including by remote control in all situations • operating infrastructure vehicles and plant when on track • piloting rail vehicles • riding rail vehicles in authorised positions • obstructing the track when on the ground without protection • obstructing the track in a protected work area that includes moving rail vehicles • undertaking train crew duties e.g., 2nd Person or Minder Driver
Rail Tunnel	An excavation or a construction around the track provided to allow the railway to pass under or through an obstruction. The length of a tunnel is defined as the length of the fully enclosed section, measured at rail level. A tunnel in this context is 0.1km or longer which requires safety mitigations in place due to the risks associated with safe operations.
Rail Vehicle	Any flanged-wheeled vehicle, which uses the railway line.
Railway	The railway infrastructure, rail vehicles, and other property (other than railway premises), including property specified by regulations made under section 59(j) and vehicles prescribed under section 59(k), that together are being used for the purpose of transporting people or goods by rail; but excludes— <ol style="list-style-type: none"> a. a railway used as an amusement device, b. a railway that operates on a set of rails with a gauge of less than 550 mm between them, unless that set of rails is designated as a railway line under section 59(l), and c. a railway that operates on a railway line excluded by regulations made under section 59(m).
Railway Corridor	The land between the legal boundaries of railway land, or land within five metres of the centreline of any operational track in cases where the land boundary is less than this distance.
Railway Infrastructure	Railway infrastructure means: <ol style="list-style-type: none"> a. railway lines b. train control and signal equipment & system c. communications equipment d. electrical traction equipment e. any other property specified as railway infrastructure in regulations, e.g., rail bridges, culverts, and tunnels.
Rail Web	The upright part of the rail linking the rail head to the rail foot.
Raise the Alarm	To make people understand the danger of something.
Rake	A number of vehicles connected together (may be part of a train).
Range of Vision	Occupying a position which provides an unobstructed view of the intended route.
Receiver	The person who receives a voice transmission via radio or telephone communications.
Registered Medical Officer (RMO)	A medical doctor who has been selected by KiwiRail, on the basis of their compliance with the specified selection criteria, to perform rail safety worker health assessments.
Regulations	Mandatory requirements authorised under the relevant legislation.
Regulator (Legislative)	Government body which regulates and monitors land transport system users.
Regulator (Railway Vehicle)	A track machine used to ensure an even distribution of ballast.
Relay Movement	Moving a train between a storage yard and a platform.
Remote Control Operator (RCO)	A competent worker authorised to remotely control a motive power unit.
Restricted Speed	Proceed cautiously, being able to stop short of an obstruction within half the distance of clear line that is visible ahead. Not to exceed 40 km/h.
Reverse (Points)	The opposite to Normal. The points are set to guide the rail vehicle through the less preferred route of those points. The points are in Reverse when the “N →” attached to the sleeper at the point of switching, is pointing towards the open blade.
Right of Way	The authority required for passenger trains to depart a platform.
Right-Side Failure	A signalling failure that does not reduce the protection given by signalling equipment.
Risk Assessment	A systematic process of identifying hazards and evaluating any associated risks within a workplace, then implementing reasonable control measures to remove or reduce them.

Term	KiwiRail Definition
Road	A designated rail track within the terminal area or shunting yard.
Road Knowledge	An Operator's familiarity with a defined section of track and facilities on the National Rail System.
Road Mode	When Mobile Plant is powered under its own tracks, rubber wheels, or other mechanical system other than retractable steel wheels.
Rolling Stock	All locomotives, motive power units, wagons, and carriages.
Rolling Stock Representative	A competent worker authorised to carry out tasks on rail vehicles.
Route	The path from one limit of authority to the next in the direction of travel.
Roving Response Engineer (RRE)	Certified Rolling Stock Representatives authorized to assist Greater Wellington Regional Council operated rail vehicles with in-service technical issues and mechanical issues and repairs.
RPE	Respiratory Protection Equipment; mask and filter, SCSR, CABA.
Run-in	When a rear section of a train is travelling faster than a forward section of a train. Run-in may be a combination of coupling slack and draftgear slack, dependent upon the forces generated.
Runner	A vehicle used when marshalling restrictions as identified in the Rules, Codes or instructions designate the separation of some vehicles from others. For example, Dangerous Goods, light loading, overhanging loads, locomotives.
Running Line/Running Road	A line which can be used for through movements of rail traffic.
Run-out	When a rear section of a train is travelling slower than a forward section of a train. Run-out may also be a combination of coupling slack and draftgear slack dependent upon the forces generated.
Run Through	When a rail movement passes through a trailing set of points that are not set in the correct position for the movement.
Safe Area	Any area beyond 4 metres horizontally from the centre of the nearest railway line. The general area beyond the Danger Area . Not to be used in lieu of a Safe Place used for Protected Work Areas which has more prescriptive requirements.
Safe Braking Distance	A distance indicated to train crew that would allow trains to stop with the application of normal service braking.
Safe Distance (Traction)	An area beyond the Minimum Approach Distance for the type of work being undertaken.
Safe Mode	Operator is out of the cab, with the machine's buckets / booms down, clear of any adjacent running line.
Safe Place	A place where people and equipment cannot be struck by passing rail traffic: <ul style="list-style-type: none"> • within an approved refuge, or • behind a permanent safety line on a designated walkway, or • behind a permanent structure or permanent physical barrier which protects from moving trains, or • at a designated location away from the danger area, or • behind authorised fencing in accordance with TS14 Authorised Fencing.
Safety Alert	Safety alerts are issued when there is a specific safety issue that without immediate action being taken could result in a serious or fatal injury.
Safety Barrier System	The erection of Authorised Fencing to create a physical structure between rail personnel and a running line.
Safety Briefing	A notice or email issued that includes safety information that is to be immediately made available to the addressees on the document.
Safety Buffer (Foul Time)	The designated amount of time between the <i>Clear Time</i> and the anticipated arrival time of the next train to the occupied area.
Safety Buffer Zone	The unprotected area between the Compulsory Stop Board and the Work Begins board which provides an overrun buffer should a rail movement fail to stop before the Compulsory Stop Board.
Safety Case	A written demonstration that an organisation has the ability and means to manage all of its activities safely.

Term	KiwiRail Definition
Safety Controls	Control measures implemented to eliminate or minimise risks to health and safety: <ul style="list-style-type: none"> • Elimination • Substitution • Isolation • Engineering control measures • Administrative controls • Personal Protective Equipment (PPE)
Safety Critical	Directly influencing safety (when applied to equipment or systems).
Safety Interface	An instance in which two individual parties using the same workspace, share and hold responsibility and accountability for the control of risks to the health and safety of personnel, visitors and other people.
Safety Liaison Officer (SLO)	The Rail Licence holder has a safety liaison officer who is authorised to act as the licence holder primary contact with the authority (Land Transport NZ) in relation to the Licence.
Safety Observations	In the field assessment of rail personnel carrying out the application of practical skills for the activities specified on their License to Operate.
Safety Points	Placed on crossing loops and sidings as required to prevent vehicles entering on or fouling the main line. Safety points are also placed on the main line where shown on S&I diagrams.
Safety System	In relation to a rail participant, means a written record of all the rail participant's management and operational policies and practices that relate to the safe conduct of its rail activities; and includes the rail participant's operational and training manuals.
Safe Working	Ensuring that personnel and visitors to the workplace are not exposed to avoidable risks, hazards, and potential incidents.
Safe Working Authority (SWA)	A Safe Working Authority (SWA) form is used to authorise rail traffic movements not otherwise permitted under the normal system of safe working.
Scenic Train	Long-distance non-commuter rail service aimed at the tourism market.
Scheduled	As specified in the master train plan, schedule notice or bulletins.
SCSR	Self-Contained Self-Rescuer. A portable piece of equipment that supplies breathable air when the surrounding atmosphere lacks oxygen or is contaminated with toxic gases.
Secondary Protection	An additional protection method, used in Multi Work Sites PWAs.
Second Person (Crew)	Rail personnel with the operational knowledge required to travel in a Motive Power Unit, to assist with Motive Power Unit and train duties and provide assistance to the Operator during breakdown procedures.
Secure	To place and keep something in a known or prepared place or position to safeguard it against accidental or unauthorised access or movement.
Selcall	Radio tones automatically transmitted by radios used within the controlled network to allow the Train Controller to identify the user.
Sender	The person who sends a voice transmission via radio or telephone communications.
Serial Braking	A method of slowing used by trains braking on grades by a series of brake applications and releases. As each brake application is made, the speed is reduced, after which the brakes are released and the train is recharged.
Service Brake	Operator initiated brake application for EMU vehicles using either, or both regenerative and friction braking systems when a rail vehicle must be stopped in the minimum distance possible.
Service Manager	A rail participant's manager responsible for operational decision making.
Set Back	To move in the reverse direction to that provided in the current proceed authority.
Severe Weather	Weather conditions which may cause line damage, or cause objects to obstruct the line.
Severe Weather Warning (Level 1)	Advisory information for train crews and infrastructure personnel to be alert for conditions that may damage the line such as falling trees and flooding, and to report any such risks immediately to the Train Controller e.g., <ul style="list-style-type: none"> • above average rain fall, or high winds • rivers flowing from catchment areas with heavy rainfall • sustained periods of poor weather.
Shunter	Historical term for Rail Personnel certified and competent to undertake shunting. See also Rail Operator .
Shunter's Platform	A platform attached to the front and rear of shunt locomotives. This is a no Ride Position. See also Cow Catcher .
Shunting	To move a rail vehicle into a different location / track using a MPU for this purpose.

Term	KiwiRail Definition
Shunting Leg	A line with several roads leading from it used for shunting movements during the break-up and marshalling of trains.
Shunting Personnel	Rail personnel who engage in the process of shunting rail vehicles.
S&I Diagrams	Signalling and interlocking diagrams issued by the Access Provider detailing signalling and interlocking arrangements for each station, and/or segment of the Controlled Network. Also shows interface with non-interlocked (operator-controlled territory) areas.
Siding Points	Siding points on the main line in TWC areas are operated by a hand lever secured by a TW Lever Lock and AS padlock unless otherwise specified in the Local Network Instructions.
Sidings	All lines other than main lines and crossing loops. May be used for marshalling, stabling, loading, and unloading or servicing of rail vehicles.
Siding, Terminal, or Depot Controller	A person responsible for the co-ordination of rail vehicle movements in a designated siding, terminal, or depot outside the Controlled Network.
Sighting Distance	The distance that someone can clearly see along a track unobstructed.
Signal	A visual display device which conveys instructions, or provides warning of instructions regarding the Operator's authority to proceed.
Signal Aspect	The displayed pattern or position of lights or arms used to give a signal indication.
Signal Blocking	A means to prevent clearance of a signal and/or movement of points when it is desired to inhibit entry of a rail vehicle movement into a section of track, or when required to prevent operation of signals or points.
Signal Box	Any place where a Signaller operates signal levers to control signals and points at a station.
Signal Call	A verbal identification of displayed signals or indicator aspects, called by, or between the crew of a rail vehicle.
Signal Calling	The procedure of verbally calling out the meaning of aspects displayed by automatic running signals and indicators.
Signal Head	The part of a colour light signal from which the aspects are displayed.
Signal Lens	Coloured transparent glass or plastic built into signal heads to enable multi aspect signal displays.
Signaller	The person who directly controls signals at an Interlocked Station, who may also be the Train Controller.
Signals Maintenance Representative	A competent worker authorised to carry out tasks on signalling and telecommunications equipment.
Signals Manager	The person authorised to manage signals, telecommunications, electrical matters (and traction where installed) for a specified area.
Signal Trip	A train protection device that automatically stops a train if it attempts to pass a signal when the signal aspect and operating rules prohibit such movement.
Single Crewing	Operator only operation of trains.
Single Line	Where a main line between two stations is for use by both Up and Down trains.
Site Induction	A way to introduce workers and visitors to relevant site-specific information and resources they need to keep themselves and other workers safe and healthy while at work.
Site Protector (SP)	The Site Protector is responsible for all personnel and equipment within work site and reports to the RPO.
Site Safety Permit	A form which once completed, authorises personnel to visit, or work in a non-interlocked rail operator's area, subject to the hazards and controls specified on the permit.
Sleeper	A rectangular shaped tie laid perpendicular to the rails which keeps the rails correctly spaced apart and transfers the load it receives from the rail in to the ballast.
SPAD A	A category "A" SPAD is a SPAD where a stop signal indication (and any associated preceding cautionary indications) was displayed correctly, in sufficient time for the train to be stopped safely at the signal. Note that a Stop Signal also includes points indicators, notice boards (those requiring a train to stop), and Track Warrant limit over-runs.
SPAD (Signal Passed at Danger)	Any signal, which has been passed without the correct authority or where the safe-working authority has been exceeded.
Special Bulletin	One-off rule modifications or provides for special or unusual circumstances not otherwise contained within the Rail Operating Rules or Operating Code. Usually for a period of less than 5 days.
Speed Indicator	Fitted above the top signal unit on a signal mast. When illuminated, will display a steady white speed in km/h that any train passing that signal must not exceed until the next signal in advance is reached unless ETCS indicates a higher speed.

Term	KiwiRail Definition
Speed Restrictions & Conditions	Information provided to train crews for each train journey advising temporary speed restrictions and trackside conditions that train crews need to be aware of.
Spike (of points)	A method of driving a stake into the ground to hold a set of points in place to prevent movement.
Split Reduction	The process of making an initial brake pipe reduction to a lesser degree than the fully required reduction, followed by further reductions until the total reduction required is reached.
Spreader Bar	The bar between switch blades at a set of points.
Stabilised Approach	A method of using checkpoints to prompt the Operator to initiate a series of stepped speed reductions in order to stop their train short of the required location.
Stable	To leave rail vehicles unattended and secured, usually in a siding.
Standard Loading Gauge	The maximum permitted dimensions of the rail vehicle and load.
Station Entry Board	Provided in multi-line areas where a signal is not available and defines a boundary for entry into an Interlocked Station.
Station Limits	Includes all lines within the outer most signals, station entry boards or points on each line controlled by the Signaller for the station. Note: Where fixed signals are not provided, station limits include all lines within the first facing points or Points Indicator met approaching the station on the main line from either direction or as otherwise defined on S&I diagrams.
Station Warning Board	A notice board, provided in the absence of an intermediate or distant signal, to warn of the approach to station limits at a Warrant Station or the end of TWC territory.
Stop (Action)	Stop all movements.
Stop Block	A structure fixed at the termination of a running line or siding to arrest slow-moving vehicles.
Stop Board	A safe working notice board inscribed 'stop' and/or displaying a red coloured symbol, at which all trains must stop and must not pass until authorised.
Stop (Signal indication)	Any signal capable of showing a danger aspect.
Strop	A restraining device used to secure the load on a wagon.
STTE	Signals Traction Telecommunication Electronic.
STTE Manager	The person authorised to manage signals, telecommunications, electrical (and traction where installed) for the region.
Substantial Barrier	See also Safety Barrier System .
Switch Blade	The movable part of the turnout permanently connected to the stock rail at the heel of the switch, typically a pair of linked profiled rails that can be moved laterally to allow a rail vehicle to pass from one line to the other. Also called Points Blade .
Switch In / Switch Out Signal Box	A Signal Box containing an interlocking machine or panel which can be switched 'in' for local control or switched 'out' when unattended and operated remotely.
Switch In / Switch Out Stations	An interlocked station where signals can be set to clear automatically without a Signaller in attendance.
Switch Lock Siding	A siding within an Interlocked Station or Block Section fitted with points that can only be reversed for the siding after an electric lock has been released.
Taillight	A red light, which may flash, attached to the rear of a train to indicate to rail personnel that the train is complete.
Tamper	Mechanised rail vehicle which lifts and straightens track.
TARP	Triggered Action Response Plan.
Temporary Speed Restriction (TSR)	An imposed reduction of the normal speed for track.
Terminal	A manned station, marshalling yard or Container Transfer Site from which trains originate or terminate at.
Terminal Brake Test	The process of checking each vehicle on the train to ensure that the braking system is correctly connected and operative, both in application and release, on each vehicle. On locomotives this includes airbrake and vigilance configuration.
TEU	Transport Equivalent Units - Generally a 20-foot standard container unit to ISO standards.

Term	KiwiRail Definition
Theory Assessments	Assessments of employees to test their theoretical knowledge for the activities specified on their License to Operate.
Toolbox Briefings	A pre-shift forum for onsite work planning prior to work commencing.
Total	The length of a train for crossings and other purposes and is shown in metres.
Track	Includes rails, sleepers, and associated formation and ballast, tunnels, and bridges together with any associated electric traction, communication, signalling and other equipment.
Track and Time Permit	A numbered authority issued by the Train Controller to occupy a defined area of track for a specific period of time. Also called <i>Mis.60</i> .
Track Circuit	An electric circuit where current is carried through the rails and used to detect the presence of trains.
Track Data Plates	Punched aluminium data plates mounted on all traction poles in the NIMT, Auckland, and Wellington electrified areas and are also used as trackside monuments where required, such as platforms or managed track areas.
Track Defect	Defect in the track which has the potential to cause a derailment unless a speed restriction is imposed.
Track Maintenance Representative	A competent worker authorised to carry out tasks on the railway track and supporting infrastructure.
Track Misalignment	Distortion of track alignment under adverse conditions.
Track Safety Qualification	A Licence to Operate for the relevant duties being performed and the subsequent protection method required to perform those duties.
Track Section	The track where the limits are identified by location marker signs or fixed signals.
Track Shorting Device	A device that can be applied to the rails to activate track circuits. Includes track shorting cables.
Track Vehicle	A vehicle, usually self-propelled, used for inspecting and/or maintaining infrastructure.
Track Vehicle Operator	A competent worker duly authorised to operate a Track Vehicle.
Track Warrant	An authority issued by Train Control defining limits and other instructions for the occupation of the main line.
Track Warrant Computer System (TWACS)	Provided to assist the Train Controller in preparing and verifying warrants.
Track Work	Construction, maintenance, or repair work on infrastructure in the Rail Corridor, see also Work on Track .
Track Workers	Competent workers whose primary duties are associated with work on or around infrastructure in the rail corridor.
Traction Competent Person	A Traction Competent Person is one who is registered with EWRB and holds a current Electrical Practising Licence from EWRB and has satisfied the TEETC (Or delegated authority) that they can safely perform the required electrical work, through the successful completion of a period of OJT and other training requirements.
Traction Control Representative	A competent worker authorised to carry out switching of remotely controlled switches and advises the Traction Competent Person of isolation actions carried out.
Traction Motor	An electric motor used for propulsion of a rail vehicle, such as a locomotives or electric multiple unit trains.
Traction Power Return	A system which uses the running rails as an electrical conductor to return the traction power to the substation from which it originated.
Trailing Handbrake	Brake handle at the rear of a moving vehicle in the direction of travel.
Trailing Points	Those switches over which trains from two lines converge onto one line and the points of the switch blades are facing away from approaching trains.
Trailing Weight	The weight in tonnes behind, but not including any motive power units in power.
Train	One or more rail vehicles coupled together, at least one of which is a locomotive or other self-propelled unit that is designed to be operated on a railway.
Train Controller	The person who controls the movement of all trains and authorisation of maintenance occupancies within a specific area on the Controlled Network.
Train Control (TC)	The Access Provider's operating centre(s) where Train Controllers operate.
Train Crew	The Locomotive Engineer or Operator, Rail Operator, Train Manager, Passenger Operator, and other Rail Personnel provided to assist with running of the train under the direction of the Locomotive Engineer or Operator.

Term	KiwiRail Definition
Train End Monitor (TEM)	An electronic device which monitors brake pipe pressure, last vehicle movement and whether the taillight is on or off. A built-in radio transmits this information to the locomotive for processing and display on the head end display unit.
Train Equipment	Components which form part of, or are attached to, rail vehicles for the purpose of running a train.
Train Examination	Examinations of the condition of rolling stock, including air brake operation to ensure operating conditions are safe and sufficient.
Train Lights	The lights displayed by a Motive Power Unit, comprising primarily of headlights, ditch lights and taillights.
Train Manager	A person designated as Train Manager who is responsible for the welfare and comfort of passengers, assists with emergency working on a passenger train and is in charge of any Ticket Collectors on the train. See also Guard .
Train Protection and Warning System (TPWS)	A system by which a train is stopped by an automatic application of the brakes when activated by lineside equipment.
Tranship	Transfer from one vehicle to another.
Trap Points	Single blade derailing switches provided for the protection of the main line, crossing loop, or other places as shown on S&I diagrams.
Treadle	A mechanical or electrical device that detects that a rail vehicle wheel has passed a particular location.
Trespasser	A person unlawfully on railway property (i.e., without proper authorisation).
Trolley	A trolley which can readily be removed from the line by no more than two persons and is used for the conveyance of personnel and tools.
TSR	See also Temporary Speed Restriction .
Turnout	A mechanical installation enabling trains to be guided from one track to another, such as at a junction or where a siding branches off. also known as points.
TWACS Blocking	A method of tagging portions of the track warrant control area as not usable to prevent a track warrant from being issued.
UHF	Ultra-High Frequency. UHF band radios are used for: <ul style="list-style-type: none"> • ASP Shunting (Audio Shunting Procedures) in rail yards, • on the Interislander Ferries, and • when Operators are away from their cabs, to communicate with onboard staff.
Unauthorised	Not given approval or exceeding the limit of authority.
Uncouple	To separate rail vehicles.
Unit Train	Any train which operates in a fixed consist between loading and unloading points, usually carrying bulk commodities such as coal, forestry, or grain.
Unplanned Work	Any activity, which may obstruct the line for less than 120 minutes duration and is not planned at least one day in advance.
Up Direction	Trains running towards Otiria in the North Island and towards Picton in the South Island are travelling in the up direction.
Vestibule	The flexible link that allows access between carriages.
VHF	Very High Frequency. E Band is a range of channels allocated exclusively for railway use. These give point to point communication between radios on the same channel over a distance of typically five (5) kilometres.
Vigilance Device	In-cab device to monitor the alertness of the Operator through a multi-resetting system which gets reset by specified normal operational activities of the crew, in addition to the acknowledgement of the push button provided for Crew.
Wagon	A rail vehicle designed to carry freight or railway equipment and materials.
Walking Pace	A speed not exceeding 5 km/h.
Warning Sign	A sign placed on a rail vehicle on which maintenance is being undertaken.
Warrant Station	A non-interlocked station in Track Warrant Control areas provided for the crossing of trains, or the junction of two main lines.
Wearable Technology	Any electronic device designed to be worn on the user's body. Examples include smart watches, fitness trackers, bluetooth headsets and bluetooth audio sunglasses.
Weld	Two sections of rail joined together by either Thermit or Flash Butt Welding.
Wellington Metro Area	All electrified lines between Wellington, Upper Hutt and Waikanae.

Term	KiwiRail Definition
Wheel Burn	Heat induced damage on the rail head often caused by wheel slip and the resulting loss of friction between the wheel and rail.
Wheel Lathe	Machine used to reprofile worn or compromised wheels of railway rolling stock.
Whistle	Audible warning device. See also Horn .
Work Area	A work area consisting of single or multiple worksites under the control of a Rail Protection Officer/ Site Protector.
Work Between	When specified on a written authority, movements are permitted to work in either direction between the locations specified.
Work on Track	Construction, maintenance, or repair work on infrastructure in the Rail Corridor. See also Track Work .
Worksite	An area with defined limits that is protected so that work can be performed.
Worksite Entry Train Alert (WETA)	A system which alerts rail personnel to approaching rail vehicles through flashing lights, sirens, and radio broadcast messages.
Work Supervisor	The person responsible for managing the activities within a Work Site including the occupational health and safety of personnel.
Work Trains	Trains used for maintenance purposes (generally infrastructure maintenance such as ballasting and rail renewals) which are not in revenue service.
Wrong Line Running	Train movements running in the opposite direction in a Block Section where the Automatic Signalling system is designed to allow train movements in one direction only.
Wrong-Side Failure	A failure resulting in a significantly less safe condition than previously existed or the failure of the Signalling or Safety System to provide the protection intended.
Yard	Area comprised of multiple tracks used for the storage and marshalling of rail vehicles.