Heritage Railways of South Australia

Railway Safeworking Rules

Common Safeworking Rules for the Pichi Richi Railway and SteamRanger Heritage Railway

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 1

Introduction and Master Contents

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(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to provide an introduction and Master Contents for the Safeworking Rules used on participating Heritage Railways in South Australia.

2. GENERAL

Following an historic in principle agreement between the Managers of the Pichi Richi Railway (PRR) and SteamRanger Heritage Railway (SHR), these Safeworking Rules and Procedures have been developed for use on:

- the PRR between Quorn and Port Augusta, and
- the SHR between Mount Barker Junction and Victor Harbour.

So far as is reasonably practicable, the application of these rules on the PRR and SHR is identical.

For consistency with Australian railway practice and compliance with the principles of the Rail Safety National Law, these Rules are based on the Australian Network Rules and Procedures (ANRP) documents, first published by the Rail Industry Safety and Standards Board (RISSB) in 2010.

NOTE	*The ANRP Suite of documents is also referred to as the "National Rulebook".*

3. RULES STRUCTURE

The Rules consist of 21 Sections which address the following matters:

- A Glossary of Terms used
- General Responsibilities for all Rail Safety Workers
- Responsibilities of Train Controllers
- Responsibilities of Rail Traffic Crews
- Responsibilities of Track Workers
- Written and Verbal Communication protocols
- Hand Signals, and Audible Signals
- Fixed Signals
- Indicators, Rail Traffic Markers and Signs
- The use of Written Authorities
- Train Order Working
- The management of Disabled or Divided Rail Traffic
- Rail Traffic Setting Back on Running Lines
- The management of Authority Overrun
- The Protection of Obstructions
- The protection of Work on Track

- The movement of Track Maintenance Vehicles
- The management of Active Control Level Crossings
- Shunting
- The management of changes to Network infrastructure.

4. SUPPORTING DOCUMENTATION

These Rules do not address all of the matters that have traditionally been included in various rule books, appendices and addenda.

These supporting documents remain an essential part of the safety management system for each railway, and address those matters which do not constitute “rules” but rather, procedures relating to issues such as behaviour, interaction with customers, and similar matters unique to each railway.

5. MASTER CONTENTS

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Section 2 – Glossary of Terms

Section 3 –General Worker Responsibilities

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END OF SECTION 1

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 2

Glossary of Terms

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the terminology used in association with the Railway Safeworking Rules on Heritage Railways in South Australia.

NOTE	*From this point forward, the Railway Safeworking Rules will be referred to as "the Rules".*

2. GENERAL

The following terms are contained in the Rules and must be used when describing safeworking on the Railway.

For consistency with Australian railway practice and compliance with the Rail Safety National Law, these terms align, so far as is reasonably practicable, with those described in Australian Standard AS4292 – Railway Safety Management, and the Australian Network Rules and Procedures (ANRP) documents, published by the Rail Industry Safety and Standards Board (RISSB).

3. ALPHABETICAL LISTING OF TERMS

3.1 Terms - A

Absolute Block Working	*A system of train operations that, under normal conditions, prevents more than one train from being in a Section at one time.* *Train Order Working is a form of Absolute Block Working.*
Absolute Signal	*A fixed Home Signal or Calling On-Signal, normally controlled by a Competent Worker.* *Its normal indication is STOP.*
access provider	*An organisation that provides and manages a rail Network and safe method of entry to that Network for Access Users.* *Pichi Richi Railway (PRR), the SteamRanger Heritage Railway (SHR), and the Australian Rail Track Corporation (ARTC) are access providers.*
access user	*An organisation that has an agreement with an Access Provider to enter and use a rail Networks facility.* *The PRR and the SHR each have an agreement to jointly use part of the ARTC Network's corridor or facilities.*
Active Control Level Crossing	*A road or pedestrian level crossing where warning equipment warns road users and pedestrians about approaching rail traffic by devices such as flashing lights or barriers.*
adjoining	*In contact with, connected to.*

adjacent	*Near to or close to*
advise	*To give written or electronic notice, usually in advance, of planned activities.*
Attended Location	*A location attended by a Competent Worker who is not part of a Rail Traffic Crew, for safeworking purposes.*
audible warning device	*A device, such as a whistle, siren, horn or hooter, fitted to a rail vehicle, used to give warning.*
Authority	*A formal conveyance of permission, which is usually provided in written form, or by a fixed or hand signal.*
authorise	*To give formal written, spoken or signalled authority for an action.*

3.2 Terms - B

bidirectional	*Allowing for normal movement of rail traffic in either direction according to the infrastructure and system of Safeworking in use.* *All PRR and SHR tracks are bidirectional.*
block	*A portion of line defined by signals, between which only one rail traffic movement is normally permitted at any one time* *There may be a number of blocks in a Section.*
Block Location	*A permanent named location in Train Order Working territory that separates sections, and which may be used as the limit of a Proceed Authority or as a reporting location.* *A Block Location may be a Crossing Location, or a Non-Crossing Location, attended, or unattended.* *(See "Station", "Crossing Location" and "Non-Crossing Location")*
blocking facility	*A facility or device used by a Competent Worker to prevent either the unintended issue of an Occupancy Authority, or the operation of points or signalling equipment, or the occupancy of a portion of track.* *This may include Train Graphing practices, special locks, points clamps, or derail devices.*

3.3 Terms - C

cancel	*To withdraw permission for or to end previously authorised activities, such as Occupancy Authorities, without completing them.*

catch points	*Single or double-bladed points used to derail rail traffic that might enter or foul an adjacent running line.*
certify	*To classify infrastructure or equipment as fit and safe for purpose.*
civil infrastructure	*The track, track formation and drainage, and fixed structures beside, over or under the track.*
clear	*The absence of rail traffic on a track, track circuit, section or route.*
clearance point	*A post, marker, light or disc used to indicate the clearance point of two converging lines.* *(See "fouling point")*
closely approaching	*Rail traffic that is travelling towards a location at a speed such that rail traffic crews could not be expected to react in sufficient time to stop.*
commission	*To formally place something into active service or use.*
communication device	*A device that enables effective communication between Competent Workers, such as a telephone or two-way radio.*
Competent Worker	*A worker, who has been trained and assessed as competent to carry out a particular relevant task.*
complete	*Rail traffic which is intact and has not parted, and is displaying rail traffic markers.*
Conditional Proceed Authority	*A formal Authority that allows rail traffic to enter and occupy a portion of line and proceed in the forward direction only, conditional upon the rail traffic crew first fulfilling the instructions contained in a previously-issued Authority.*
Control Point	*A Non-Crossing Block Location.* *(See "Station", "Block Location" and "Non-Crossing Location")*
consist	*A listed order of the vehicles arranged to make up a train.*
converging	*Tracks meeting and joining to become one track.*
convoy	*A group of track vehicles not coupled together, but travelling closely together under a single Occupancy Authority.*
cross	*The process by which rail traffic travelling in opposite directions meet at a Crossing Locations on single lines*

Crossing Location	*A Block Location consisting of one or more single or double ended portions of track, to hold rail traffic, connected to a main line that is used to permit other rail traffic to cross or pass.* *(See "Station", "Block Location" and "Non-Crossing Location")*
Crossing Loop	*A running line, secondary to the main line at a Crossing Location, provided primarily for the crossing of rail traffic.*

3.4 Terms - D

Danger Zone	*Everywhere within 3m horizontally from the nearest rail and any distance above or below this 3m, unless a safe place exists or has been created.*
decommission	*To formally remove something from active service or use*
delegate	*A Competent Worker permitted and designated to act in place of another*
derail device	*A device intended to guide the wheels of rail traffic off rails.*
disabled	*(Rail Traffic) unable to travel due to a defect.*
diverging	*A single track dividing to become two tracks.*
Driver	*A Competent Worker controlling the movement of rail traffic.*

3.5 Terms - E

effective communication	*The ability to successfully send, receive and understand information.* *The communication does not need to be continuous.*
emergency	*An incident requiring urgent action.* *The incident may involve death or serious injury, health or safety effects, significant damage to property or infrastructure.*
End of Train Marker	*A device, including tail lights, or tail discs, fitted to the trailing end of the last vehicle of a rail traffic consist to indicate the end of the consist.*
exclusive occupancy	*Sole occupation of track within defined limits.*

3.6 Terms - F

facing points	*Points with the switch blades facing approaching rail traffic.*
Fatigue	*A condition in which a worker loses alertness or capacity to perform safely as a result of a lack of restorative sleep, stressors, or extreme exertion.*
fit for purpose	*Able to be used for the function required.*
fixed signal	*A signal that is located permanently near the line.*
fixed worksite	*A worksite with boundaries that are fixed and defined for the duration of the work.*
foul	*In a position to obstruct rail traffic on adjacent lines.*
fouling point	*A marker, or disc used to indicate the clearance point of two converging lines.* *(See "clearance point")*
fulfil	*To complete the instructions on, and associated activities for an Occupancy Authority.*

3.7 Terms - G

ground frame	*A small trackside interlocking device used for manual signal operation.*
Guard	*A Competent Worker who is a member of a rail traffic crew, and who is in charge of, and assists with the safe running of a train.* *Under certain circumstances, a Guard may act as the Train Controller.*
Guard in Charge Working	*A system of operation used only on the PRR, where the Guard of a train, being the only occupancy on the railway, jointly performs the role of Guard and Train Controller.*

3.8 Terms - H

handbrake	*A device used to secure a rail vehicle against movement.*
handsignal	*A signal given by hand movements, with or without flags or lights.*
Handsignaller	*A Competent Worker who gives handsignals to rail traffic crew.*
haul	*To move rail traffic using a motive power source at the leading end.*

headlight	*White lights fitted at the front of rail traffic to provide visibility for the rail traffic crew and to improve the visibility of rail traffic.*
Heavy Track Vehicle	*A track vehicle which cannot be removed from the track by two people, or without mechanical assistance.* *A bimodal road-rail vehicle that cannot be driven from the track is a heavy track vehicle.*

3.9 Terms - I

illegal signal indication	*A signal indication that is inconsistent with the signal aspects and indications used in the Network.*
in effect	*Something that is active, current or in force.*
in-field protection	*One or more approved devices that provide warning to protect Rail Traffic Crew and Workers.* *The device or devices may be used in conjunction with blocking facilities.*
issue	*To give or send copies of an Authority, warnings, notices and Network publications to affected Competent Workers by voice, hand delivery or electronic means.*

3.10 Terms - J

joint occupancy	*Simultaneous occupancy of track within defined limits.*

3.11 Terms - K

No applicable terms used.

3.12 Terms - L

level crossing	*A location where the railway line and a road or pedestrian walkway cross paths on the same level.*
Level crossing protection	*The function of protecting against collision between rail and road traffic at a level crossing, by use of workers displaying hand signals, or by use of signs or automated equipment.*
light, non-powered hand tool	*A tool that can be carried and easily removed from the Danger Zone by one person and is not powered by compressed air, gas, electricity, hydraulics, explosive charge or an internal combustion engine.*
light, powered hand tool	*An internally powered tool that can be carried and easily removed from the Danger Zone by one person, without mechanical assistance.*

light track vehicle	*A track vehicle which can be removed from the track by two people, without mechanical assistance.* *A bimodal road-rail vehicle that can be driven from the track is a light track vehicle.*
Light Locomotive (Light Engine)	*A locomotive travelling on a running line, with no vehicles attached.*
Limit of Authority	*The extent of a portion of track over which occupancy is permitted.* *The location to which rail traffic may travel under an Authority or the limits of a work on track authority.* *The limit may be defined by a sign, a signal capable of displaying a STOP indication, or a specific kilometre post on a line.*
Local Possession Authority	*A Local Possession Authority excludes normal rail traffic from a defined portion of track and gives total responsibility for the control of a portion of track to the Possession Coordinator for an agreed specified period.* *A Local Possession Authority is used to enable work, including that involving the use of multiple work groups at multiple worksites, associated rail traffic and heavy equipment, to be safely performed, by excluding normal rail traffic.*
Location	*A place in the Network which has a formally designated name reference.* *(See "Block Location", "Station", "Crossing Location" and "Non-Crossing Location")*
locomotive	*Self-propelled, non-passenger-carrying railway vehicles used for hauling other (typically freight or passenger) rolling stock.*
Lookout	*A Competent Worker responsible for keeping watch for approaching rail traffic, and for warning other workers to stand clear of the line before the rail traffic arrives.*
Lookout Working	*A safety measure used by Competent Workers to carry out work on track without a formally issued work on track Authority.*
low visibility	*Any condition that does not allow Competent Workers to view the distance required to work safely.*

3.13 Terms - M

Main Line	*The running line normally used for running rail traffic through and between locations*

major incident	*An incident assessed by an Operations Manager, or as defined by Law, as having a potentially major impact on the Network, human life, property or the environment.*
marker lights	*Lights used to indicate the front or rear of a rail traffic movement.*
marshal	*To arrange the order of vehicles in a rail traffic movement's consist.*
May	*The word "May" indicates the presence of an option.*
Motive Power Unit	*A rail vehicle used to provide the power to move itself or other rail vehicles.*
Must	*The word "Must" indicates that a statement is mandatory.*

3.14 Terms - N

Network	*A combination of track and other infrastructure controlled by an Access Provider.* *The Pichi Richi Railway Network extends from Quorn to Port Augusta, Quorn to Bruce, and Quorn towards Willochra.* *The SteamRanger Heritage Railway extends from Mount Barker to Victor Harbour, and Mount Barker to Mount Barker Junction.*
Network Control	*The function of managing rail traffic paths and issuing Occupancy Authorities.*
Network Notice	*A notice issued by an Access Provider which contains safeworking information for workers, issued as required by the Operations Manager or other authorised officer.*
Non-Crossing Location	*A named location in Train Order Working territory that separates sections, and which may be used as the limit of a Proceed Authority or as a reporting location but at which rail traffic movements cannot cross or pass.* *(See "Station", "Crossing Location" and "Block Location")*
Normal Speed	*A speed that does not exceed the speed limit currently in effect for the location and type of rail traffic.* *(See "Track Speed")*

3.15 Terms - O

obstruct	*To make a line unsafe for the normal passage of rail traffic.*

occupancy	*The presence of rail traffic or track workers on track.*
Occupancy Authority	*A formal Authority that allows occupancy of a portion of line by rail traffic or for work on track.*
Operations Manager	*The competent worker appointed by the Railway, and responsible for the overall administration of the operation of the Railway, and issue Network Notices as required.* *On the PRR this is the Traffic Superintendent.* *On the SHR this is the Operations Manager.*

3.16 Terms - P

parting	*The uncoupling of rail traffic whilst en route.*
pass	*To overtake other rail traffic travelling in the same direction in single line territory.*
Passive Control Level Crossing	*Road and pedestrian level crossing warning that relies on road users and pedestrians looking out for and giving way to rail traffic.*
permanent record	*A record made in writing or in an electronic system, and which is kept for reference and audit.*
Permissive Signal	*A fixed signal normally controlled by the passage of trains.* *Its normal indication is PROCEED or CAUTION, however it may be maintained at STOP.*
Pilot	*A Competent Worker, who accompanies, directs, advises and is responsible for piloting rail traffic crews.*
piloting	*The act of directing or guiding rail traffic crews and telling them about local conditions and operating restrictions on running lines and at worksites.*
platform	*A level or raised area, next to the line, that allows people to enter and leave trains.*
points	*A track component consisting of paired pieces of tapered rail that can be moved and set to allow tracks to diverge or converge.* *(See "Switches")*
points indicator	*An indicator showing the position of points.*
points securing device	*A device approved by Access Providers used to prevent movement of points from a secured position.*

Possession Coordinator	*The Competent Worker responsible for coordinating protection of worksites under a Local Possession Authority (also called a "Possession Protection Officer" on other Networks).*
Proceed Authority	*A formal Authority that allows rail traffic to enter and occupy a portion of line and proceed in the forward direction only.*
propel	*To push rail traffic away from the controlling locomotive or motive power unit.*
protection	*The means used to prevent rail traffic from entering a worksite or other portion of track, or to prevent road or pedestrian traffic entering a level crossing.*

3.17 Terms - Q

No applicable terms used.

3.18 Terms - R

rail bond	*A cable fixed across a break or joint in one rail, or between two rails, to provide a path for track-circuits.*
Rail Corridor	*The land on which a railway is built; comprising all property between property fences, or from the nearest rail in each direction for a distance of fifteen metres.*
Rail Traffic	*Trains and track vehicle or vehicles travelling on the network.*
Rail Traffic Crew	*Competent Workers responsible for the operation of rail traffic.*
rail traffic integrity	*The requirements that must be met for rail traffic to be deemed to be fit for purpose and able to enter and travel on the Network.*
Railway Track Signal	*A device attached to a rail that explodes on impact, used to attract the attention of rail traffic crews.*
restrain	*To prevent movement of rail traffic with signals, signalling equipment, blocking facilities, or the issue of a written warning.*
Restraint Authority	*A formal Authority that directs rail traffic not to depart its current, location and which cancels any Proceed Authority in effect.*

Restricted Speed	*A speed at which a rail movement can be stopped within half of the distance that the line can be seen to be clear ahead.* *A movement traveling at Restricted Speed must not travel at more than half of the normal speed for the location.*
road-rail vehicle	*A vehicle that is capable of being driven on the road, or on the railway, by the use of rail guidance wheels.*
roll-by inspection	*A visual inspection of moving rail traffic to identify equipment, loading security or other defects or failure.*
rollingstock	*A vehicle that operates on, or uses a railway.*
running line	*A line (other than a siding) that is used for through movement of rail traffic.*

3.19 Terms - S

safe braking distance	*A distance indicated to rail traffic that would allow rail traffic to stop with the application of normal service braking.*
safety assessment	*An assessment process used to identify hazards for all work planned for the Rail Corridor and its potential to intrude on the Danger Zone.*
Safe Place	*A place where workers and equipment cannot be struck by rail traffic.*
Section	*The line between the departure-end yard limit of one location and the arrival-end yard limit of another location.*
Secure	*To place and keep something in a known or prepared place or position to safeguard it against accidental or unauthorised access or movement.*
set back	*To move in the reverse direction to that provided in the current Proceed Authority.*
Shunt	*To move rail traffic, rakes of vehicles, or vehicles on lines for purposes other than through-movement.*
Shunter	*The Competent Worker responsible for conducting of shunting operations.*

Siding	*A portion of track where vehicles can be placed clear of the running lines.*
sighting distance	*The distance that someone can clearly see along the track.*
Stable	*To leave rail traffic unattended and secured, usually in a siding.*
Station	*A Block Location*
Station Supervisor	*A Competent Worker who attends a Block Location for safeworking purposes. (Also called a "Station Master").*
suspend	*The practice used when a work on track authority is suspended and then reinstated at a later time.*
sufficient warning time	*The minimum time needed for workers to react to a Lookout's warning and move themselves and equipment to a safe place, which should include time for the Lookout's reaction and a margin for safety.*
switches	*A North American term for points. Traditionally used in ex-South Australian Railways territories, but now superseded by "points".*

3.20 Terms - T

tail lights	*Red lights used as to designate the end of rail traffic.* *(See "End-of-train markers").*
take off rail	*A structure used to give track vehicles entry to and exit from the line at other than a siding.*
Temporary Speed Restriction	*An imposed reduction of the normal speed for a portion of track.*
Track	*The combination of rails, rail connectors, sleepers, ballast, points and crossings.*
track circuit	*An electric circuit where current is carried through the rails and used to detect the presence of trains.* *Track-circuits are used in the operation and control of signalling equipment.*
Track Occupancy Authority	*A formal Authority for Competent Workers and their equipment to occupy a defined portion of track for a specified period.*
Track Speed	*The allowed maximum speed for a portion of track.* *(See "Normal Speed")*

track vehicle	*A vehicle, sometimes self-propelled, used for inspecting and/or maintaining infrastructure.*
Track Vehicle Operator	*A Competent Worker controlling the movement of a track vehicle.*
Track Work	*Construction, maintenance or repair work on or around infrastructure in the Rail Corridor.*
Track Worker	*Competent rail safety workers whose primary duties are associated with work on or around infrastructure in the Rail Corridor.*
Track Work Authority	*A formal Authority for non-exclusive occupancy of track by track workers and their equipment within specified limits.*
trailing points	*Points with the switch blades facing away from approaching rail traffic.*
Train	*A locomotive or self-propelled vehicle, travelling alone or coupled to one or more vehicles, through a Section.*
Train Control Graph	*A diagram showing operational information for a train control area, and on which proposed and actual occupancies and Authorities are recorded.*
Train Controller	*A Competent Worker who authorises and issues Occupancy Authorities, and who manages rail traffic paths to ensure safe and efficient transit of rail traffic in the Network.* *Under certain circumstances on the Pichi Richi Railway only, the Guard in charge of the solitary train on the railway may act as the Train Controller.*
Train Crew	*The Competent Workers responsible for the operation of a train.* *(See "Rail Traffic Crew")*
train number	*A train or run number used to provide unique identification of a train.*
Train Order	*A written form used for the issue of a Proceed Authority, Work Authority or Restraint Authority to rail traffic crews.*
Train Order Working	*A system of safeworking in which Authorities for rail traffic movement and other occupation of the track are issued by the Train Controller, and provided to Competent Workers in written form.*

Train Running Information	*Information about rail traffic movement and frequency provided for a particular location.*
travel	*Planned or purposeful movement from one location to another.*

3.21 Terms - U

Unattended Location	*A location not attended by a Competent Worker for safeworking purposes.*
unauthorised	*Not given approval, or exceeding the limit of authority.*

3.22 Terms - V

visibility lights	*Lights provided to Motive Power Units, and fitted in addition to the headlights, to improve the visibility of a vehicle, or to assist the crew in viewing of the immediate area in front of the vehicle. (Also known as "ditch lights" or "crossing lights")*

3.23 Terms - W

Walking in the Danger Zone	*Walking from place to place in the Danger Zone and doing no work other than placing or removing protection for a worksite or rail traffic, or the operation of infrastructure for the working of rail traffic.*
whistle	*A device such as a bell, whistle, siren, horn or hooter, fitted to rail traffic to give audible warning.* *(See "Audible Warning Device")*
Work Authority	*A formal Authority that allows a train to occupy the track move in either direction between specified locations.*
work on track	*The work performed in the Rail Corridor, or to perform work in the Rail Corridor.*
work on track Authority	*A formal Authority to perform work on track.* *(See "Local Possession Authority", "Track Occupancy Authority", "Track Work Authority")*
work train	*A train used in maintenance or construction activities and which usually operates using a Work Authority, or within Local Possession limits.*
Worksite Protection Officer	*A Competent Worker who has a primary duty and responsibility is to keep the worksite and workers safe, and is responsible for managing the rail safety component of worksite protection.*

3.24 Terms - X

No applicable terms used.

3.25 Terms - Y

yard	*A system of tracks within yard limits.*
Yard Limits	*A defined operational limit on a running line, at a Block Location, between Yard Limit Signs.*

3.26 Terms - Z

No applicable terms used.

END OF SECTION 2

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 3

General Worker Responsibilities

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Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the Rules outlining the general responsibilities of all workers on Heritage Railways in South Australia.

2. GENERAL

Safety is the most important element in performing rail safety work, and all workers are responsible for it.

All users of the network must comply with their duty of care for the safety and wellbeing of themselves and others.

Complying with the Rules is essential to on-job safety.

In case of doubt or uncertainty, workers must take the safest course of action.

3. WORKING ON THE RAILWAY

Workers must liaise with the Train Controller about the work to be performed, and activities planned for, or being conducted on the railway.

3.1 Before starting work

All workers must:

(a) assess the risks associated with their proposed actions, and;

(b) ensure they have the equipment required to carry out their work, and;

(c) pre-plan their work to avoid injury, and;

(d) have reference to the most up-to-date applicable Network Notices, and;

(e) be aware of the location of structures or obstructions where clearances are close.

3.2 Whilst performing work

All workers must:

(a) be alert and attentive to prevent injury to themselves or others, and;

(b) expect the movement of rail traffic at any time, on any track, in either direction, and;

(c) not stand on the track in front of approaching rail traffic, or other moving equipment, and;

(d) not engage in activities that may divert their attention or that of other workers, from safety-related duties, and;

(e) not use electronic communications, video, photographic or audio devices that are not directly related to their duties, and;

(f) as required, maintain effective communication with the Train Controller and other users of the railway.

4. THE RAIL CORRIDOR

All workers have a responsibility to work safely within the Rail Corridor.

The rail corridor consists of two parts:

(a) the Danger Zone, and;

(b) the remaining area:

- between boundary fence lines or;
- where no boundary fence exists, up to 15 metres from the nearest rail.

At any time whilst in the rail corridor, a worker must not:

(c) wear red or green clothing that could be mistaken for a safeworking flag, and;

(d) make gestures or use lights in a manner that could be mistaken for a safeworking handsignal.

4.1 The Danger Zone

The Danger Zone is all space within 3 metres horizontally from the nearest rail to 3 metres horizontally from the furthest rail, and any distance above or below this, unless a safe place exists or can be created.

Workers must not enter or walk in the Danger Zone unless:

(a) an easily-reached safe place is available, and;

(b) visibility conditions allow enough sighting distance for workers to reach a safe place before the arrival of rail traffic, and;

(c) no practical alternative exists.

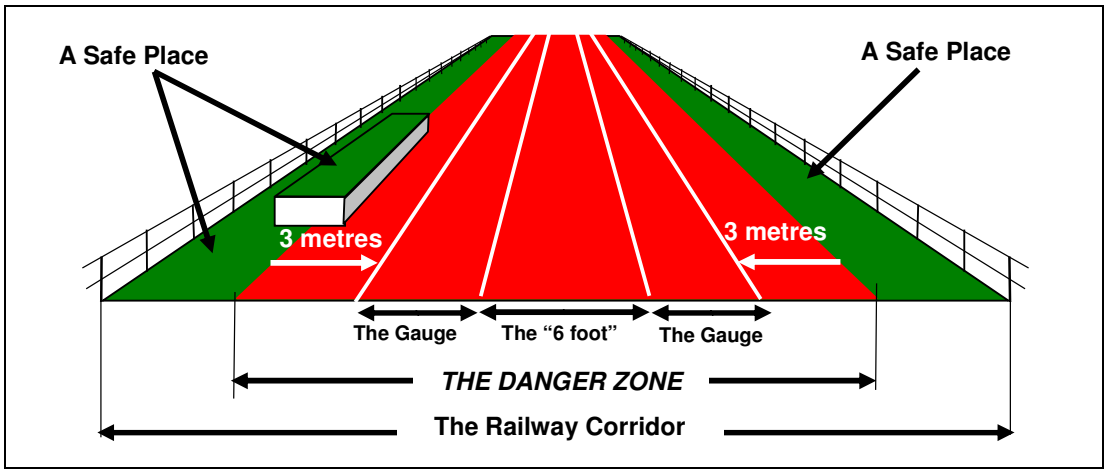

Diagram 1 – The Danger Zone

4.2 Safe Place

A Safe Place is a location where workers and their equipment cannot be struck by rail traffic.

A Safe Place may include:

(a) anywhere outside of the Danger Zone, or;

(b) a place created within the Danger Zone where a worker is safe.

WARNING!	*Moving out of the Danger Zone for one track may place you within the Danger Zone of another track.* *Some hazards outside of the Danger Zone may make some areas unsuitable to be used as a safe place.*

5. FATIGUE

NOTE	*Fatigue is the negative effect on the body resulting from insufficient sleep or excessive physical exertion.* *It may be exhibited by degraded performance, or impaired judgement, and diminishes the safety of the railway operation.*

Workers must make all reasonable efforts to:

(a) not present themselves for duty or continue to perform rail safety work whilst fatigued, and;

(b) manage their off-duty time and preparation for duty, to minimise the possibility of becoming fatigued whilst on duty.

Workers must comply with the content of the fatigue management plan for the railway on which they are carrying out rail safety work.

6. NETWORK TIME

All workers must observe a standard Network time, which is synchronized by the Train Controller, from a known accurate time.

On first communicating with the Train Controller, workers must check to ensure that their time is coordinated with Network time.

7. TOOLS AND EQUIPMENT

Workers must:

(a) check the safe condition of equipment and tools used to perform their duties, and;

(b) report any defects in accordance with organisational procedures, and;

(c) not use a tool or an item of equipment that is safety-defective, and;

(d) not use a tool or an item of equipment unless they have been trained in its use.

NOTE	*For the purpose of this Rule, the term "equipment" includes all hand or powered tools, items of plant including rolling stock and motive power units, and communications equipment used on the railway to perform rail safety work.*

7.1 Personal Protective Equipment

All workers must use personal protective equipment of the type, and in the locations mandated by the railway on which they are working.

Orange high visibility clothing must be worn by workers when working at ground level within a joint ARTC Rail Corridor, and in other locations where enhanced visibility of workers is required, including when directing shunting:

(a) in locations of low or obstructed visibility, and;

(b) in locations where workers are shunting in close proximity to members of the public.

7.2 Security of Points, Derails, and other Equipment

Specific equipment must be locked to prevent their operation by unauthorised personnel.

All workers are responsible to ensure that points, derails, gates and other specified equipment is locked and restored to their normal position when not in use.

8. REPORTING IRREGULAR CONDITIONS

Workers must report to the Train Controller, by the first available means:

(a) any accidents, incidents or personal injuries, and;

(b) defects in tracks, bridges, signals or rail traffic, and;

(c) any other condition that may affect the reliability, safety or security of the network.

The Train Controller must record any advice of unsafe conditions and report these to the Railway functional manager responsible for attending to such conditions.

9. INCIDENTS

Certain incidents are defined by Law as notifiable occurrences.

The Train Controller must report any defined notifiable occurrence, to the Railway's Rail Safety Manager as soon as is reasonably practicable.

When responding to an incident, all workers must comply with the content of the incident and emergency response management plan for the railway on which they are carrying out rail safety work.

9.1 Injuries

If people are injured, workers must do everything within their reasonable capacity, to care for them.

9.2 Witnesses and Evidence

Accurate evidence must be obtained following incidents to help determine a cause, and prevent a repetition.

The worker in charge of the site must make all reasonable attempts to obtain the names, addresses and occupations of all personnel involved.

Workers must preserve an incident site and evidence as far as possible, until authorised investigators arrive at the site.

NOTE	*The preservation of the incident site is secondary to the rescue and treatment of personnel or the prevention of environmental damage.*

9.3 Damage to property

If any infrastructure or rail vehicles are damaged as a result of an incident of any kind, these must be inspected by a Competent Worker before further use.

Following a derailment, the track at the site, and rail vehicles involved, must be inspected by a Competent Worker to ensure they are safe for travel.

10. RULES

Workers must:

(a) comply with the Rules and other instructions when performing their duties, and;

(b) report to the Train Controller, any negligent practice, or violation that circumvents the Safeworking Rules, and;

(c) ask their supervisor for an explanation of any rule, regulation, or instruction of which they are uncertain, and;

(d) so far as reasonably practicable, be able to refer to the Rules while on duty.

11. COMPETENCE

Workers must:

(a) be trained, assessed, and currently competent in the duties associated with the performance of their work, and;

(b) produce reasonable evidence of their competence on request, and;

(c) undertake reassessment of the practical and theoretical competency in the Rules at least once, every three (3) years.

Where they have been issued, rail safety worker identity cards must be carried and produced as reasonable evidence of competence, as required.

NOTE	*Reassessment of competence of other rail safety worker functions must be conducted at intervals stipulated by the Railway in accordance with the provisions of the Rail Safety National Law.*

12. DRUGS AND ALCOHOL

Workers who perform rail safety work must not:

(a) report for duty, remain on duty or be on the Network with a blood alcohol level of 0.001% or more, or;

(b) use over-the-counter medications, narcotics, or controlled substances that may adversely affect safe performance, or;

(c) use medication that may have the capacity to impair judgment and affect safe conduct, even when prescribed by a medical practitioner, and used as prescribed.

Workers must comply with the content of the drug and alcohol management plan for the railway on which they are carrying out rail safety work.

END OF SECTION 3

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 4

Train Controller's Responsibilities

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules outlining the Train Controller's responsibilities on Heritage Railways in South Australia.

2. GENERAL

The primary responsibility of the Train Controller is to manage the safe transit of rail traffic, and safe occupation of the track by on-track workers, through the Network.

3. MANAGEMENT

Train Controllers must plan, set priorities for, and manage:

(a) rail traffic movements, and;

(b) liaison with relevant rail traffic crews, maintenance personnel, affected interfacing parties and external services during incident management, and;

(c) liaison with relevant adjoining Network managers, and;

(d) the safe and prompt restoration of train services, following any disruption.

4. RESPONSIBILITIES

Train Controllers must:

(a) make sure accurate time is maintained and used, and;

(b) not engage in activity that distracts them from their Safeworking duties, and;

(c) validate requests for occupancy or travel on the railway to ensure they are reasonable and within the rules, and;

(d) formulate and issue Authorities for the movement of rail traffic, and;

(e) formulate and issue Authorities for work on track activities, and;

(f) record details of, and as required, tell workers about rail traffic movements on the Network, and;

(g) record, and as required, tell workers about conditions affecting the network, and;

(h) promptly respond to equipment failures and incidents, and;

(i) promptly tell the organisation's Rail Safety Manager about:

- any breaches of the Rules or Procedures, and;
- defined notifiable occurrences, and;

(j) as required, interface with Train Control centres for adjoining Networks, and

(k) as required, manage emergency and incident response.

5. TRAIN CONTROL HANDOVER

A Train Controller must tell the relieving Train Controller about any conditions that could affect the operation of the Network.

The relieving Train Controller and the Train Controller being relieved must jointly verify the status of any Authorities in effect, and make sure that they are accurately recorded.

The Train Controller being relieved must not cease duty until the relieving Train Controller has an understanding of conditions that could affect the operation of the Network.

6. MANAGING INFORMATION

Train Controllers must:

(a) manage information regarding out of course or additional services, and;

(b) record planned and actual movements and track occupations, and;

(c) as necessary, use graph blocking processes to safeguard against decision making errors or conflicting occupancies, and;

(d) frequently check that the record of movements, track occupations and other conditions affecting the network is updated and accurate, and;

(e) complete the transmission, verification and recording of each Authority and work on track occupancy before commencing any other activity, and;

(f) so far as is reasonably practicable, keep all Train Control and Safeworking documentation in clear view.

When Authorities are being issued, the Train Controller must cross-check the Authority with the Train Control documentation being used to provide a record of occupancies.

Where required, the Train Controller must maintain a chronological log of all events occurring on the railway.

7. OVERDUE OCCUPATION

Where the agreed or expected reporting, clearance or section running times are exceeded, the Train Controller must:

(a) contact the Competent Worker in charge of work on track activities, or;

(b) contact the rail traffic crew.

If this should fail, the Train Controller must contact the workers' or rail traffic crew's supervisor, or other available and competent worker to initiate a search.

If this should fail, the Train Controller must initiate emergency procedures.

8. KEEPING RECORDS

Train Controllers must keep an accurate, detailed and permanent record of occupancies and movements on the Network, and conditions affecting the operation and safety of the Network.

END OF SECTION 4

Heritage Railways of South Australia

Railway Safeworking Rules

Section 5

Rail Traffic Crew's Responsibilities

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(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules outlining the responsibilities of Rail Traffic Crews on Heritage Railways in South Australia.

2. GENERAL

2.1 Rail Traffic Crew Workers

A Rail Traffic Crew may comprise:

(a) a Driver or track vehicle operator, operating alone, or;

(b) a Driver and Observer or Fireman, or;

(c) a Driver and Guard, or;

(d) a Driver, Observer of Fireman, and Guard, or;

(e) a trainee undertaking on-job tuition in any of these roles.

2.2 Rail Traffic Crew Competency

Rail traffic crews must be competent:

(a) to operate rail traffic vehicles of which they are in control, and;

(b) in the system of Safeworking relevant to the operation, and;

(c) to operate on the route over which they travel.

3. RAIL TRAFFIC CREW PERFORMANCE

The primary responsibility of a rail traffic crew is to manage the safe operation of rail traffic so that they do not put at risk their safety or that of the public, other rail traffic or other workers on the Network.

Rail traffic crews must:

(a) make sure the rail traffic movement can be operated safely before it enters and travels on the Network, and;

(b) tell the Train Controller if they believe the rail traffic movement is defective and could potentially damage or affect Network infrastructure, and;

(c) observe that the track is safe and set for the direction of travel, and;

(d) frequently observe to ensure that the rail traffic is travelling safely, and;

(e) not engage in any activity that may potentially distract their attention, or that of others, and;

(f) make sure that any driver supervisory system in place, is working, and;

(g) be prepared to stop or reduce speed if required, and;

(h) not allow speed limits to be exceeded, and;

(i) reduce rail traffic speed if it is considered that safe operation at normal speed may not be safe, and;

(j) stop, if braking equipment is not considered to be operating as expected, and;

(k) operate services to timetable unless otherwise authorised, and;

(l) pay particular attention when:

(i) Authorities are being received, and;

(ii) reporting their position, and;

(iii) visibility is impaired for any reason, and;

(iv) approaching or passing through:

- a block location, or;
- points and signals, or;
- places where other rail traffic is present, or;
- temporary speed restrictions, or;
- track worksites or places where other workers are present, or;
- level crossings, or;
- any other location where particular vigilance is required.

4. RAIL TRAFFIC CREW ALERTNESS

4.1 Motive power unit operation by multiple workers

If a motive power unit crew is comprised of more than one worker, the crew must:

(a) confirm that each has an understanding of the current of limit of authority, and;

(b) confirm that lineside signs and signals are correctly responded to, and;

(c) verbally confirm:

(i) signal indications, and;

(ii) points settings, and;

(iii) temporary speed signs, and;

(iv) the status of level crossings, and;

(v) the operation of level crossing active control equipment, and

(vi) the continued safe travel of the rail traffic movement.

4.2 Motive power unit operation by single worker

If a motive power unit is operated by a single worker, the worker must remain alert to:

(a) signal indications, and;

(b) points settings, and;

(c) trackside permanent and temporary speed signs, and;

(d) the current of Limit of Authority.

4.3 Display of Authority

The Authority currently in effect must be:

(a) displayed in a clear and conspicuous place, and;

(b) available for examination by any other rail traffic crew members.

5. RAIL TRAFFIC CREW CHANGEOVER

Rail traffic crews must tell a relieving crew about any conditions that could affect the operation of the rail traffic.

5.1 Incoming rail traffic crew

The incoming rail traffic crew must:

(a) check the Authority in effect and ensure that it is:

  (i) understood by them, and;

  (ii) correctly recorded, and;

  (iii) clearly displayed, and;

(b) tell the Train Controller:

  (i) about the change of crew, and;

  (ii) any change to communications arrangements, and;

  (iii) about their understanding of the Authority in effect.

5.2 Outgoing rail traffic crew

The outgoing rail traffic crew must not depart until they have made sure that the incoming crew understands:

(a) the status of the Authority in effect, and;

(b) the status of signals and points, and;

(c) the status of track and temporary speed restrictions in place, and;

(d) other factors that could affect the safety of rail traffic.

6. EXAMINATION OF OTHER RAIL TRAFFIC MOVEMENTS

Rail traffic crews must, so far as reasonably practicable, check other rail traffic movements for defects including but not limited to:

(a) loading irregularities, or;

(b) passengers riding in an unauthorised location, or;

(c) dragging brakes or other equipment, or;

(d) fire, or;

(e) the absence of an end-of-train marker.

6.1 Roll-by inspection

If possible, one crew member of the stationary rail traffic must be in a safe place, at ground level, to conduct a roll-by inspection of moving rail traffic.

If possible, the rail traffic crews must inform each other of the roll by inspection.

6.2 Reporting faults and unsafe conditions

If a defect or unsafe condition is detected, rail traffic crews must tell:

(a) the affected rail traffic crew, if possible, and;

(b) the Train Controller.

If a fault or failure requires attention by the rail traffic crew, they must, if necessary, arrange for protection from other rail traffic.

7. EQUIPMENT AND INFRASTRUCTURE DEFECTS

If the rail traffic crew detects any defect in equipment or infrastructure that may affect operations on the Network, the crew must tell the Train Controller.

END OF SECTION 5

Heritage Railways of South Australia

Railway Safeworking Rules

Section 6

Track Worker's Responsibilities

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(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the Rules outlining the general responsibilities of Track Workers on Heritage Railways in South Australia.

2. GENERAL

Track workers include:

(a) a track vehicle or machine operator, or

(b) a general labourer or “fettler”, or

(c) a workgroup supervisor or “ganger”, or

(d) a competent worker, performing an inspection or maintenance of track or civil assets, or

(e) a competent worker, performing safeworking functions associated with work on the track, or

(f) a worker undertaking training in any of these roles.

3. TRACK WORKER GENERAL RESPONSIBILITIES

The primary responsibility of track workers is to manage their work to make sure that they do not lessen their own safety or that of rail traffic on the Network.

A Track Worker may be responsible for one or more of the following:

(a) performing track maintenance or construction work under supervision, and;

(b) supervising track maintenance or construction workgroups, and;

(c) coordinating track maintenance or construction workgroups and associated rail traffic, and;

(d) managing or conducting vegetation control, and;

(e) monitoring and responding to the effects extreme weather conditions on Network infrastructure, and;

(f) monitoring the safety of Network infrastructure and responding appropriately, and;

(g) monitoring the overall security of the Network and reporting possible breaches or risks, and;

(h) assisting with recovery from incidents, and;

(i) operating track machinery, and;

(j) liaising with the Train Controller, and;

(k) obtaining Authorities, and;

(l) determining safety measures required for occupation of the track, and;

(m) managing protection of a work location or rail traffic passage through work locations.

4. PASSING RAIL TRAFFIC

4.1 Workers standing clear

As a train or a track vehicle approaches, track workers must:

(a) remove tools or equipment that may be struck by the rail traffic, and;

(b) stand clear and remain in a safe place, and;

(c) make no movement that may be mistaken by rail traffic crews as a movement into the Danger Zone, and;

(d) unless responsible for displaying handsignals to rail traffic crews, make no movements and gestures that may be mistaken for handsignals.

4.2 Examination of passing rail traffic

All track workers have a responsibility to observe passing rail traffic for potential defects.

Track Workers must, so far as reasonably practicable, check passing rail traffic for defects including but not limited to:

(a) loading irregularities, or;

(b) passengers riding in an unauthorised location, or;

(c) dragging brakes or other equipment, or;

(d) fire, or;

(e) the absence of an end-of-train marker.

4.3 Reporting rail traffic faults

If a rail traffic fault is detected, track workers must arrange to tell:

(a) the affected rail traffic crew, if possible, and;

(b) the Train Controller.

5. CHANGES TO NETWORK INFRASTRUCTURE

Track Workers must formally tell the Train Controller about any work that will result in infrastructure or equipment being:

- temporarily de-commissioned, or;
- permanently de-commissioned and removed, or;
- newly commissioned, or;
- recommissioned for use.

NOTE	*Where used, an Infrastructure Change Advice form must be compiled, to formally advise the Train Controller about infrastructure that has been temporarily or permanently commissioned or decommissioned.*

END OF SECTION 6

Heritage Railways of South Australia

Railway Safeworking Rules

Section 7

Verbal and Written Communication

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(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with the use of verbal and written communication on Heritage Railways in South Australia.

2. SPOKEN TERMS

Effective radio and telephone communication is essential for safety on the Network.

2.1 Numbers

When numbers are spoken, for clarity, the following standard international pronunciations must be used.

The syllables in capital letters should be stressed.

For Digit	***Say***	***For Digit***	***Say***
0	*ZEE-roh*	***5***	*FI-yiv*
1	*WUN*	***6***	*SIX*
2	*TOO*	***7***	*SEV-en*
3	*Thuh-REE*	***8***	*ATE*
4	*FO-wer*	***9***	*NINE-er*

Numbers in excess of nine must be broken down and spoken as individual numerals:

Examples:

Eleven (11) must be expressed as "One – One" (1 – 1)

Seventy Six (76) must be expressed as "Seven – Six" (7 – 6)

Twenty five (25) must be expressed as "Two – Five" (2 – 5)

For a decimal point, or fraction say "point".

Example:

Two Hundred and Thirty Nine and a Half (239 ½) must be expressed as "Two - Three – Nine point Five " (2 - 3 - 9 – point - 5)

2.2 Location Names

Locations names must be clearly and distinctly pronounced.

Where a location name is being communicated during the issue or read back of a written Authority, the location name must be spelled out immediately after it is spoken (e.g. ALPHA - A – L – P – H – A).

2.3 Alphabet Characters

If necessary, the international standard phonetic alphabet must be used for clarity.

For	*Say*	*For*	*Say*	*For*	*Say*
A	*ALPHA*	***J***	*JULIET*	***S***	*SIERRA*
B	*BRAVO*	***K***	*KILO*	***T***	*TANGO*
C	*CHARLIE*	***L***	*LIMA*	***U***	*UNIFORM*
D	*DELTA*	***M***	*MIKE*	***V***	*VICTOR*
E	*ECHO*	***N***	*NOVEMBER*	***W***	*WHISKY*
F	*FOXTROT*	***O***	*OSCAR*	***X***	*X-RAY*
G	*GOLF*	***P***	*PAPA*	***Y***	*YANKEE*
H	*HOTEL*	***Q***	*QUEBEC*	***Z***	*ZULU*
I	*INDIA*	***R***	*ROMEO*		

2.4 Standard Terms

The following terms and meanings must be used to minimise misunderstanding.

Term	*Meaning*
Correct	*Yes. That is correct / You are right*
Emergency (3 times)	*This is an emergency*
I Read Back	*I am going to repeat all or part of your statement exactly as I received it*
I Say Again	*I am going to repeat all or part of my last statement*
I Spell	*I am going to spell out a word using the phonetic alphabet*
Loud and Clear	*Your signal is strong and every word is understood.*
Negative	*No. That is not correct.*
Out	*My transmission is complete – A reply is not expected*
Over	*I have finished speaking – I await your reply*
Read Back	*Repeat all or part of my message, exactly as you received it*
Received	*I have clearly received, and I understand your message*
Receiving	*I acknowledge your call – Proceed with your message*
Roger	*All of your last statement is received and understood*
Say Again	*Please repeat your last message*
Speak slower	*You are hard to understand – please speak slower*
Standby	*Please wait – I will get back to you soon.*

3. TWO WAY RADIO COMMUNICATION

3.1 General

The two-way radio must only be used for matters relating to safeworking, track occupancy, train working or emergencies.

Radio users must listen, pause, and make sure that no-one else is speaking before transmitting a message.

Transmissions must be as brief, accurate and relevant as possible.

3.2 Initiating an exchange of messages

When initiating an exchange of messages, the person initiating the transmission must:

(a) state the identity of the person being called, and;

(b) state the identity of the person initiating the call, and;

(c) use the term "over" to indicate that a reply is expected.

Example:

"Driver of (Train ID), the Worksite Supervisor at (Location) calls, over."

3.3 Responding to a message

When a call is received, the person receiving the transmission must:

(a) as promptly as circumstances allow, respond, and;

(b) state the identity of the person calling, and;

(c) state the identity of the person being called, and;

(d) use the term "over" to indicate that a reply is expected

Example:

"Worksite Supervisor at (Location), the Driver of (Train ID) receives you, over."

Once communication has been established, parties may use a shortened form of identification.

3.4 Ending an exchange of messages

An exchange of messages must be terminated with use of the term "out".

NOTE	*The term "Over and Out" means both "I am expecting a reply" and "I am not expecting a reply" and must not be used.*

3.5 Transmission not Understood

If the meaning of any transmission is not understood:

(a) the receiver must ask the sender to "say again" the message, and

(b) if necessary, the parties must use the phonetic alphabet to clarify the message.

WARNING!	*Workers must not assume that a receiver has understood a message before the receiver confirms this.*

4. EMERGENCY TRANSMISSIONS

4.1 General

Emergency transmissions must take priority over all other transmissions.

Unless they are answering or aiding the emergency, users who hear an emergency transmission must not attempt to transmit a message until it is clear that the emergency has been dealt with.

4.2 Initiating Emergency Transmission

If an emergency situation requires that an emergency transmission be made:

(a) state “Emergency – Emergency – Emergency”, and;

(b) give brief details about the emergency, and;

(c) pause, expecting a response.

If no response is received, the person seeking assistance must repeat the emergency transmission, until answered.

4.3 Describing Details of the Emergency

When the emergency transmission is answered, the initiator of the emergency transmission must state:

(a) the location of the emergency, and

(b) the identification of the person seeking assistance, and

(c) the type of assistance required.

5. USE OF TWO-WAY RADIO DURING SHUNTING

5.1 General

Where the use of two-way radio equipment for shunting is authorised, workers must ensure that communication is clear, as brief as possible, and easily understood.

Before commencing shunting work, workers conducting shunting and rail traffic crews must reach an understanding about:

(a) the work to be done, and;

(b) the method of communication to be used, and

(c) the expectation and method of acknowledging that communication has been received by the rail traffic crew.

Where necessary, the rail traffic crew must be told about the speed at which the movement is to travel.

If the meaning of a verbal shunting command is not understood, a rail traffic crew must not move, or if already moving, stop the movement to confirm its meaning.

5.2 Communication of Direction During Shunting

Before commencing shunting work, workers conducting shunting and rail traffic crews must reach an understanding about the method by which direction of movement will be communicated.

Communication of the direction in which a rail traffic movement is required to proceed. must be clear, and unambiguous.

The terms “forward” and “backward” must not be used to indicate direction during shunting where there is any possibility of misinterpretation.

Verbal communication of shunting direction must wherever possible, be indicated by reference to a known and identifiable location or a compass direction.

Examples:

“Driver of (ID) push in towards the workshops shed, over.”

“Driver (ID), set back in a westerly direction, over.”

“Driver of (ID) pull out towards the Station, over.”

5.3 Communication of Distance During Shunting

Before commencing shunting work, workers conducting shunting and rail traffic crews must agree about the method of communicating the distances to travel during shunting.

Communication of distance must be stated in units of distance that can be easily judged and estimated, such as metres, locomotive lengths, or standard vehicle lengths.

NOTE	*The use of metres for communication of longer travel distances is not recommended.* *The use of metres for communication of shorter travel distances is highly recommended.*

Examples:

“Driver of (ID) about 20 locomotive lengths to travel, over.”

“Driver of (ID) 4 metres to run.”

5.4 Interval of Communication During Shunting

The workers conducting shunting must communicate with rail traffic crews at intervals that allow the shunting operations to be conducted safely and smoothly.

If a hauled shunting movement is moving towards clear track, the communication of the movements progress must be conducted at intervals that will keep the rail traffic crew informed that the movement is travelling safely.

If shunting movement is moving towards a stationary vehicle or dead end, or other stopping point, the worker conducting shunting must update the distance remaining to be travelled at no more than half of the last previously advised distance.

Example:

"Driver of (ID) 5 locomotive lengths to travel, over."

(then at half of that distance)

"Driver of (ID) 2 ½ locomotive lengths to travel, over."

(then at half of that distance)

"Driver of (ID) about 20 metres to travel, over."

5.5 Responding to Shunting Communication

Unless it is clearly unsafe to do so, rail traffic crews must:

(a) obey and proceed in accordance verbal commands received, and;

(b) acknowledge verbal commands by:

(i) sounding the motive power unit's audible warning, or;

(ii) displaying a hand signal in response, or;

(iii) confirming receipt of a verbal radio command by a radio transmission.

When shunting, rail traffic crews must not transmit a response to a verbal radio command where doing so may prevent receipt of a further verbal radio command.

5.6 Loss of Communication During Shunting

If updated shunting communication is not received as expected after travelling half of the last indicated distance to travel, the rail traffic crew must:

(a) sound the whistle, and;

(b) promptly bring the movement to a smooth stop, and;

(c) attempt to re-establish communications, and;

(d) seek further instructions.

The rail traffic crew must make no attempt to move until the safety of the worker conducting the shunting, and the safety of the movement has been verified, and further shunting instructions have been communicated.

6. TELEPHONE COMMUNICATION

Fixed-line, mobile and satellite telephones may be used for communication between workers.

Telephones may be used as the primary or a secondary means of communication between workers and the Train Controller.

When used by workers performing rail safety work, telephones must be used only for matters relating to safeworking, track occupancy, train working or emergencies.

6.1 Protocols for Use

The standard protocols outlined for the use of two-way radios must be used wherever it is appropriate.

NOTE	*The use of radio communication protocols when a satellite telephone is used, is highly recommended.*

6.1.1 Mobile Telephone Use

Mobile telephones must not at any time be used by a worker who is:

(a) at the controls of moving rail traffic, or;

(b) standing or walking within the Danger Zone, or;

(c) directing or assisting with any shunting movement, or;

(d) performing lookout or hand signalling duties for the protection of other workers.

A worker located within a motive power unit control cab must not use a mobile telephone if this may distract the attention of the motive power unit crew.

6.1.2 Initiating or Answering Mobile Telephone Calls

If a worker must initiate or answer a mobile telephone call when performing rail safety work, the worker must ensure that it is safe to do so, and:

(a) move to, or remain in a safe place for the duration of the call, and;

(b) if necessary, stop rail traffic movements in the vicinity.

NOTE	*A mobile telephone may be used for authorised purposes, from on-board a moving or stationary train only, if it creates no distraction to rail safety workers.*

7. WRITTEN COMMUNICATION

Written Authorities are the most common form of written communication for safeworking purposes.

7.1 Written Authorities

Written Authorities:

(a) are used to make sure safeworking instructions and information are clear, complete and issued in a consistent way, and;

(b) are issued by the Train Controller to Competent Workers, and;

(c) must be transmitted using voice communication and recorded in writing, and;

(d) must not contain additions, alterations, corrections, or unauthorised punctuations.

7.1.1 Forms Used

Written Authorities must be recorded in permanent ink on the prescribed forms, being:

(a) a Train Order Form, for Train Movement, or;

(b) a Track Work Form, for occupancy of the track by workers or track vehicle travel.

NOTE	*Refer to Section 11 - "Written Authorities"*

7.1.2 Abbreviated Terms Within Written Authorities

Only the following abbreviated terms may be included within a Written Authority.

C	Curve (followed by number)	**MPH**	Miles per hour
GIC	Guard In Charge	**No**	Number
Hrs	Hours	**Psgr**	Passenger
HTV	Heavy Track Vehicle	**PT**	Port
km	Kilometre reference	**RC**	Rail Car
Km/h	Kilometres per hour	**RRV**	Road Rail Vehicle
KP	Kilometre Post	**SMC**	Steam Motor Coach
LTV	Light Track Vehicle	**STN**	Special Train Notice
Loco	Locomotive	**TN**	Train Notice
LP	Local Possession	**TO**	Train Order
m	metres	**TOA**	Track Occupancy Authority
MIC	Motor Inspection Car	**TOW**	Train Order Working
Mins	Minutes	**TSR**	Temporary Speed Restriction
MT	Mount	**TWA**	Track Work Authority
MP	Milepost	**YLS**	Yard Limit Sign

7.1.3 Recording Location names within Written Authorities

Where a location name is included within the text of a Written Authority, the location name must be written in BLOCK CAPITAL letters.

Examples:

"Proceed from PT AUGUSTA Main Line to QUORN End Yard Limits.
Stop and report at STIRLING NORTH and WOOLSHED FLAT
Report through DEVILS PEAK and SUMMIT.
TSR 5 MPH over points at SALTIA."

"Proceed from MT BARKER Main Line to VICTOR HARBOUR Yard Limits.
Stop and report at STRATHALBYN and GOOLWA
Report through BUGLE RANGES and PT ELLIOT.
TSR 15 km/h over Up End points at FINNISS."

7.1.4 Recording numbers within Written Authorities

When numbers are included within the text of a Written Authority, the number must be recorded as a numeral, and not a word.

Examples:

"Eleven" is written as "11"

"Twenty-Five" is written as "25"

"Seventy-Six" is written as "76"

7.2 Written Network Notices

Written communication about network conditions and operation may be distributed via documents collectively called "Network Notices". This may include:

- Train Notices, or;
- Special Train Notices, or;
- Temporary Speed Restriction Advice Notices, or;
- Traffic Superintendent's Memorandums, or;
- Traffic Superintendent's Temporary Directives, or;
- Network Infrastructure Alteration Advice notices, or;
- Service amendment notices, or;
- Signal Notices, or;
- Working Timetables, or;
- Network procedures, or;
- any form of written communication determined by the Railway to be suitable.

The language, terms and abbreviations used within Network Notices must, so far as reasonably practicable, be consistent with those used in the rules and in written Authorities.

The information and instructions contained within Network Notices must not contradict the Rules.

END OF SECTION 7

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 8

Hand and Audible Signals

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with hand and audible signals used on Heritage Railways in South Australia.

2. HAND SIGNALS

2.1 Giving Hand Signals

Handsignals must be given:

(a) in a clear and timely manner, and;

(b) so that they will be received and acted upon only by those being signalled.

When hand signals are relayed:

(c) the hand signaller relaying the signal must do so promptly, and accurately, and;

(d) the hand signaller displaying the original signal must allow for a possible delay in relaying of the handsignal.

A Handsignaller must:

(e) be in, or have access to a safe place, and;

(f) be in clear view of those who are being signalled.

A Handsignaller responsible for displaying hand signals for the protection of a worksite must :

(g) tell the worker in charge of the worksite if conditions such as visibility change, and;

(h) remain at the designated position, unless:

- replaced by another Handsignaller, or;
- no longer required.

2.2 Responding to Hand Signals

If the meaning of a handsignal is not understood, a rail traffic crew must stop, or remain stationary, and seek clarification of its meaning.

Rail traffic crews must:

(a) obey handsignals and respond promptly to them, and;

(b) acknowledge handsignals by:

- sounding the motive power audible warning, or;
- displaying a hand signal in response.

2.3 Use of Handsignals

As required, a rail traffic movement must be directed by regular handsignals.

Handsignals must be given using:

(a) flags or hands during daylight, and;

(b) lights during darkness or low visibility.

Workers directing rail traffic movement by hand signals must display these at intervals that allow the rail traffic movement to be conducted safely and smoothly.

2.3.1 Hand Signals for Train Running or Track Work

Hand Signal	*Use*
STOP	*Used when rail traffic movement is required to apply brakes or stop.*
ALL RIGHT –CLEAR TO PROCEED	*Used when rail traffic is clear to proceed through a worksite, under normal conditions.* *Used to acknowledge that it is "All Right" for a train to move, or the conditions are otherwise safe.*
GUARD'S STARTING (RIGHT OF WAY)	*Used when rail traffic is authorised to depart from a station.*
GUARD'S JOINING (SECOND RIGHT OF WAY)	*Used when the Guard has joined the train, and to signify that the train is proceeding safely.*
ADMISSION	*Used to authorise rail traffic to enter a Station where no fixed signals are provided, or to pass a fixed signal at stop.*
ADMISSION (GUARD IN CHARGE)	*Used to by the Guard under Guard in Charge Working to authorise rail traffic to pass a fixed signal at stop and enter a Station.*
RELEASE BRAKES	*Used to instruct that the brakes are to be released during a Brake Test.*

2.3.2 Hand Signals for Shunting

Hand Signal	*Use*
STOP	*Used when rail traffic movement is required to stop.*
PROCEED AWAY	*Used when rail traffic is required to proceed away from the hand signaller.*
PROCEED AWAY SLOWLY	*Used when rail traffic is required to move slowly away from the hand signaller.*
PROCEED TOWARDS	*Used when rail traffic is required to proceed towards the hand signaller.*
PROCEED SLOWLY TOWARDS	*Used when rail traffic is required to proceed slowly towards the hand signaller.*
EASE UP	*Used when rail traffic is required to proceed very slowly towards the hand signaller to couple or uncouple.*

2.3.3 Verbal Commands used in Lieu of Hand Signals

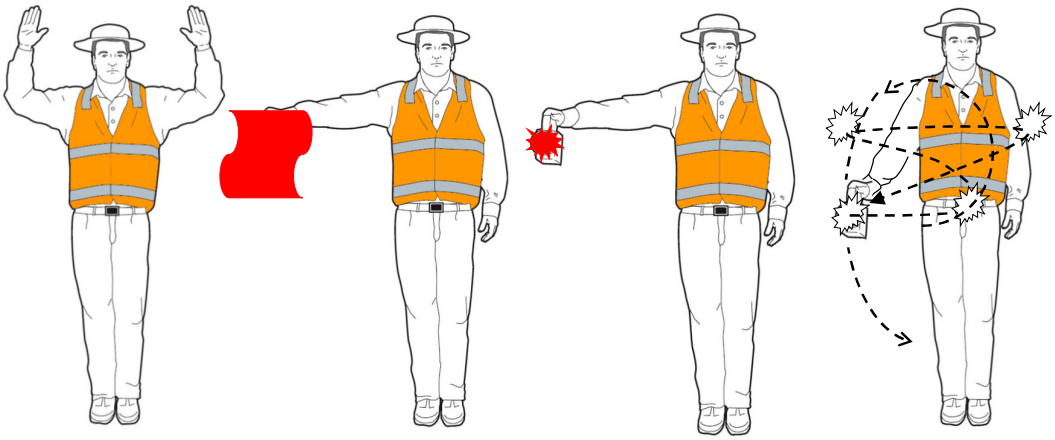
Hand Signal	*Verbal Command*
STOP	*"Red Light" or "Stop"*
PROCEED WITH CAUTION	*"Clear to proceed with caution"*
ALL RIGHT –CLEAR TO PROCEED	*"Clear to proceed"*
GUARD'S STARTING	*"Right of Way – Clear to Depart"*
GUARD'S JOINING	*"On Board – Second Right of Way"*
ADMISSION	*"Clear to enter yard" or "Clear to pass Signal"*
ADMISSION (GUARD IN CHARGE)	*"Clear to enter yard" or "Clear to pass Signal"*
RELEASE BRAKES	*"Release Brakes"*
PROCEED AWAY	*"Clear to proceed away from me"*
PROCEED AWAY SLOWLY	*"Proceed away from me slowly"*
PROCEED TOWARDS	*"Clear to proceed towards me*
PROCEED TOWARDS SLOWLY	*"Proceed towards me slowly"*
EASE UP	*"Ease up to (couple / uncouple)"*

NOTE	*Refer to Section 7 – Verbal and Written Communication*

2.4 Hand Signals – Train Running or Track Work

The following hand signals must be used during train running or track work.

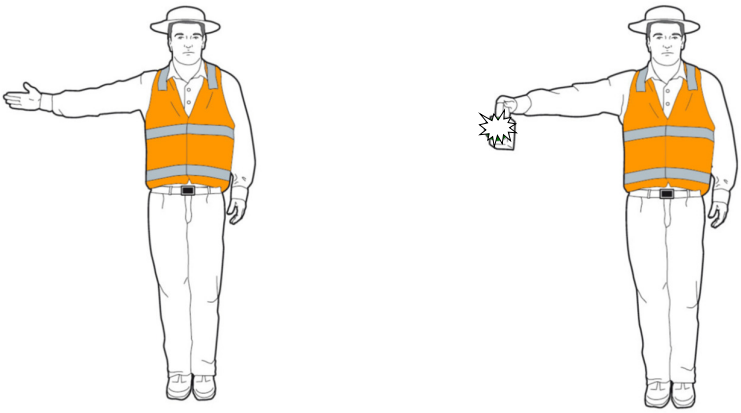
2.4.1 Stop – Apply Brakes



By day: Both arms raised up, above the head, or:
A RED flag held steadily or waved.

In darkness or low visibility: A RED light held steadily or waved or:
Any light waved erratically

2.4.2 All Right – Proceed

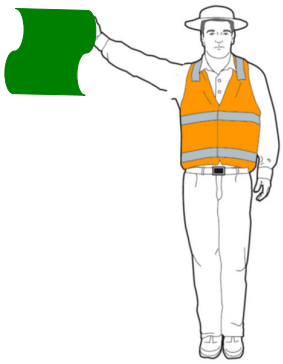


By day: One arm extended horizontally from the body

In darkness or low visibility: A WHITE light held steadily.

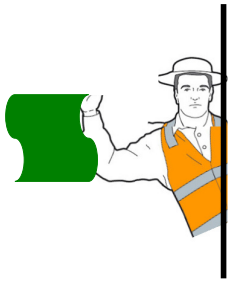
NOTE	*An ALL RIGHT – PROCEED signal may be displayed to workers to signify that a Rail Traffic movement is clear to proceed, but it is not a GUARDS STARTING signal.*

2.4.3 Guard's Starting Signal (Right-Of-Way)



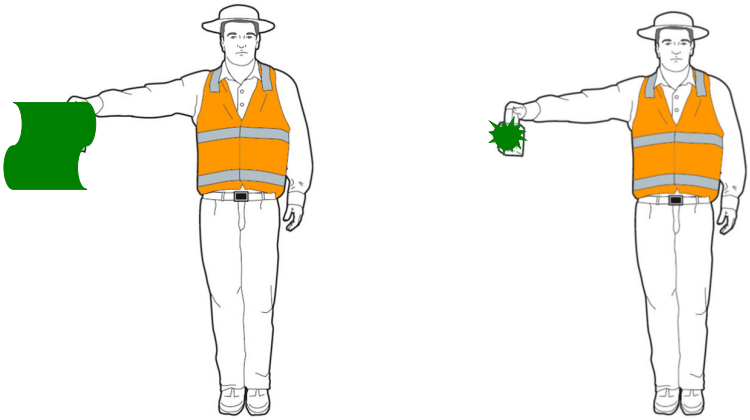
By day:	A GREEN flag held steadily at or above shoulder height
In darkness or low visibility:	A GREEN light held steadily at or above shoulder height

2.4.4 Guard's Joining Signal (Second Right-Of-Way)



By day:	A GREEN flag extended horizontally and held steadily from the train.
In darkness or low visibility:	A GREEN light extended horizontally and held steadily from the train

2.4.5 Admission



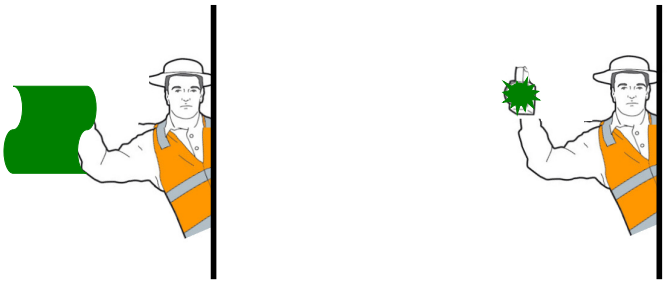
By day: A GREEN flag held steadily at or above shoulder height.

In darkness or low visibility: A GREEN light held steadily at or above shoulder height.

NOTE	*An ADMISSION SIGNAL must be displayed from near the first facing points, or the Fixed Signal to be passed at STOP.*

2.4.6 Admission (Guard In Charge)

PRR ONLY



By day: A GREEN flag extended horizontally and held steadily from the train.

In darkness or low visibility: A GREEN light extended horizontally and held steadily from the train.

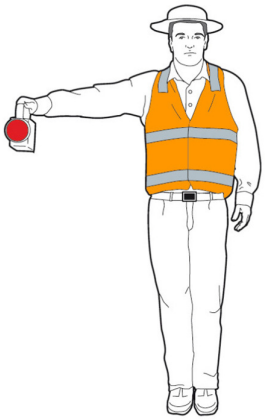
2.4.7 Release Brakes

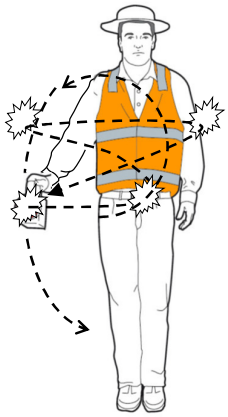
By day:	One arm extended upwards from the body and waved in an arc from the elbow
In darkness or low visibility:	A WHITE light held upwards from the body and waved in an arc from the elbow

2.5 Hand Signals – Shunting

The following hand signals must be used when shunting:

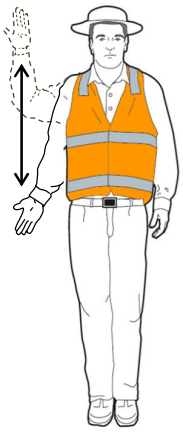
2.5.1 Stop





By day:	Both arms raised up, above the head.
In darkness or low visibility:	*A RED light waved or held steadily or a light of any colour waved erratically.*

2.5.2 Proceed Away



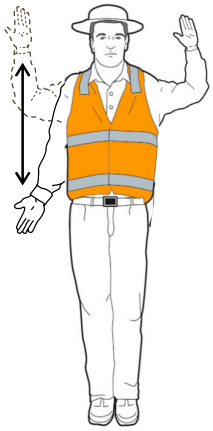
By day:

One arm extended forward from the body and waved up and down in a vertical line

In darkness or low visibility:

A WHITE light held forward from the body and waved up and down in a vertical line

2.5.3 Proceed Away Slowly



By day:

One arm extended upward above the shoulder and the other extended forward from the body and waved up and down in a vertical line

In darkness or low visibility:

A GREEN light held forward from the body and waved up and down in a vertical line

2.5.4 Proceed Towards

By day: *One arm waved horizontally across the body*

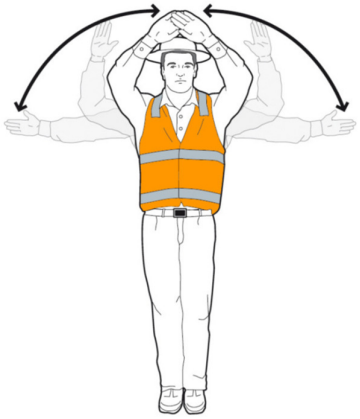
In darkness or low visibility: *A WHITE light waved horizontally across the body*

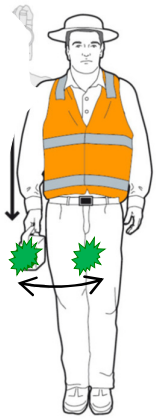
2.5.5 Proceed Towards Slowly

By day: *One arm extended upward above the shoulder and the other waved horizontally across the body*

In darkness or low visibility: *A GREEN light waved horizontally across the body*

2.5.6 Ease Up





By day:	Both arms repeatedly extended out, then brought together in an arch above the head
In darkness or low visibility:	A GREEN light waved slowly from side to side using the wrist or lower arm only

3. AUDIBLE SIGNALS

Audible signals must be used to provide warning to workers, or other persons, of the approach of rail traffic, or to audibly convey an instruction or command.

Audible Signals are produced by

(c) an Audible Warning Device fitted to a Motive Power Unit, or;

(d) a Railway Track Signal placed on the track.

3.1 Motive Power Unit Audible Signals

3.1.1 Using Motive Power Unit Audible Warning Device

Rail traffic crews must use the audible warning device (whistle) on motive power units to make audible signals.

Audible signals must be sounded clearly, with the intensity and duration of the signal determined by the urgency of any warning being sounded, the location where it is used and the distance over which it is expected to be heard.

Whilst the use of the whistles (particularly) on steam locomotives adds to the heritage attributes of the railway's activities, its use must be responsibly managed to minimise any disturbance to local residents.

3.1.2 Motive Power Unit Audible Signals – Meanings

In the following, a sound of short duration is represented by the character " O " and a sound of longer duration is represented by the character " ━ ".

The following audible signals must be used:

Signal	*Meaning*
—	*Warning*
—	*Challenging a fixed signal at STOP*
O	*Acknowledging a Guard's Starting Signal*
O	*Motive Power Unit about to move*
O	*Acknowledging Guard's Joining Signal*
O	*Acknowledging Track Worker Hand Signal*
— — O O	*Call for Guard's assistance (repeated at short intervals)*
— O —	*At Whistle Sign (approaching a Level Crossing)*
—	*At Whistle Sign (other than approaching a Level Crossing)*

NOTE	*A motive power unit may sound one short sound (O) if about to move forward, or two short sounds (O O) if about to move backward.*

3.2 Failure of Motive Power Audible Warning Device

If the audible warning device fails and cannot be repaired and no other motive power unit can be used as the lead unit, rail traffic crew must:

(a) continue movement with the headlights displayed at high beam on the lead unit, and travel at:

- normal speed if visibility is good, or;
- restricted speed during periods of low visibility, and;

(b) flash the headlights to attract attention where necessary, and;

(c) slow to restricted speed before each level crossing, prepared to stop if road or pedestrian traffic is approaching, and;

(d) do not proceed over the level crossing, unless:

- at an active control level crossing, the equipment is operating, or;
- at a passive control level crossing, it is clear, or road and pedestrian traffic has been stopped, and;

(e) slow to restricted speed approaching other rail traffic where workers may be present on the ground, and;

(f) slow to restricted speed approaching people on or about the track, and;

(g) slow or stop as necessary, if the approach of the rail traffic is not attracting the appropriate attention.

3.3 Audible Signals for Shunting

Audible signals may be used to convey an instruction to a rail traffic crew when shunting or during train working on railcars where equipment is provided for the purpose.

This equipment may be a buzzer, siren, whistle or bell.

The following audible signals must be used:

Signal	*Meaning*
—	*Stop*
O O	*Move forward*
O O	*Guard's Starting Signal*
O O O	*Move backward*

3.4 Railway Track Signals

Railway track signals are an audible warning device that are classified as an explosive (Class 1.4S), under the Australian Dangerous Goods Code.

A railway track signal is used by a competent worker to attract the attention of rail traffic crews.

NOTE	*A Railway Track Signal is sometimes called a "Detonator"*

NOTE	*Railway track signals present no significant hazard provided the inner packaging of the railway track signal remains intact.*

Railway track signals must be stored in a locked ammunition box or magazine when not in use.

WARNING!	*Do not attempt to crush or strike a Railway Track Signal.*

3.4.1 Use of Railway Track Signals On Heritage Railways

Where used on Heritage Railways, railway track signals may be used to protect:

(a) disabled or divided rail traffic, or;

(b) a track obstruction, or;

(c) a track worksite.

NOTE	*Refer to Section 16 "Protection of Obstructions"*

3.4.2 Responding to Railway Track Signals

If rail traffic explodes one or two railway track signals, the rail traffic crew must:

(a) sound one long warning whistle, and;

(b) slow immediately to Restricted Speed, and;

(c) travel at Restricted Speed expecting to find an obstruction, and;

(d) stop, if no obstruction is found within 1000 metres, and;

(e) seek further instructions from the Train Controller.

If rail traffic explodes more than two railway track signals in succession, the rail traffic crew must:

(f) immediately react to stop the movement, and;

(g) simultaneously sound one long warning whistle, and;

(h) after stopping, seek further instructions from the Train Controller.

3.4.3 Use of Audible Railway Track Signals On Adjacent ARTC Network Lines

Railway Track Signals must be used to protect adjacent ARTC Network lines if they are known, or are suspected to be obstructed by a Heritage rail traffic movement.

NOTE	*Refer to Section 16 "Protection of Obstructions"*

END OF SECTION 8

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 9

Fixed Signals

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with fixed signals, used on Heritage Railways in South Australia.

2. GENERAL

Fixed Signals are provided at Quorn, Mount Barker, Mount Barker Junction, Strathalbyn and Victor Harbour.

Wherever possible signals must be located to the left side of the line to which they apply, when seen from the front.

Where this is not reasonably practicable, they may be located on the right side of the line to which they apply.

NOTE	*The description of fixed signals within the rules does NOT mandate their use on any particular railway. Not all of the following fixed signals will be in use on all Heritage Railways in South Australia.*

3. TYPES OF FIXED SIGNALS

Fixed signals are either:

(a) a 2-Position Lower Quadrant Semaphore Home, Outer Home, Calling On Signal, or Distant Signal, or;

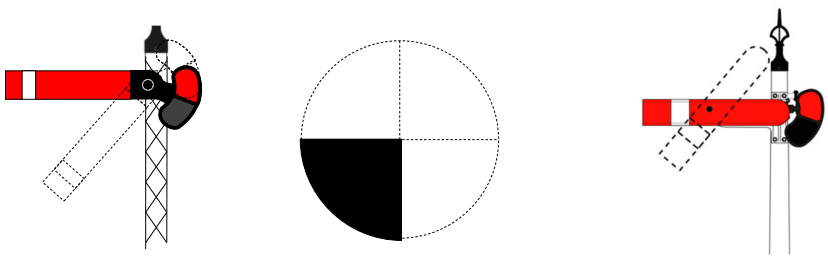
(b) a 3-Position Upper Quadrant Semaphore Permissive Signal, or;

(c) a 3-Position Searchlight-type Permissive Signal, or;

(d) a Train Order Signal.

3.1 Lower Quadrant Signals

Two Position Lower Quadrant Signals must operate in the lower left quadrant of the arc.



Orientation of Lower Quadrant Semaphore Signals

3.2 Light Signals

Light Signals display an indication by use of one or more coloured lights, both by day, and at night.

4. PURPOSE OF FIXED SIGNALS

4.1 Home Signals

A Home Signal may:

(a) provide protection for points, and;

(b) define the limits of the Yard, and;

(c) display a visible indication for departure from the Yard and into a Section, and;

(d) display a visible indication for entry to the Yard.

The outermost Home Signal defines the boundary between the Station Yard Limits and the Main Line Section.

4.1.1 Outer Home Signal

PRR ONLY

An Outer Home Signal may:

(a) provide protection for points, and;

(b) define the limit of the Yard, or;

(c) display a visible indication for departure from the Yard.

4.1.2 Calling-On Signal

PRR ONLY

A Calling-On signal is a shunt signal.

A Calling-On Signal may:

(a) provide protection for points, and;

(b) define the limits of the Block Location, and;

(c) display a visible indication for entry to an occupied track within the Yard.

4.1.3 Distant Signal

PRR ONLY

A Distant Signal :

(a) provides a visible reminder to rail traffic crews of their approach to a Station, and;

(b) provides a visible indication of the possible status of the next signal.

4.2 Permissive Signal

A Permissive Signal is used to divide a portion of track into manageable signal blocks for train separation, or to provide information about the status of infrastructure such as points or active protected level crossing equipment.

4.3 Train Order Signal

A Train Order Signal is provided at certain Block Locations to provide information regarding the attended or unattended status of the Location, and the need for rail traffic movements to stop, or slow down to obtain a Train Order.

5. DESCRIPTION OF FIXED SIGNALS

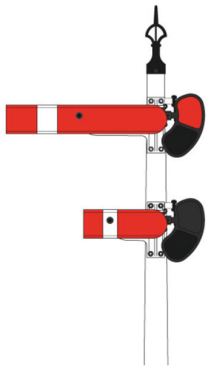
5.1 2 Position Lower Quadrant Semaphore Home and Calling-On Signals

The arm of a Home Signal or Calling On Signal must be square ended.

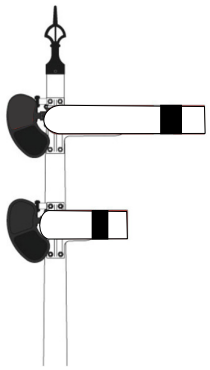
The front of the arm of a Home Signal or Calling On Signal must be RED with a WHITE stripe.

The rear of the arm of a Home Signal or Calling On Signal must be WHITE with a BLACK stripe.

More than one Home Signal may be provided on a single mast.



Home and Calling On Signal (Front)



Home and Calling On Signal (Rear)

A Home Signal must be located above any Calling-On Signal on the same mast.

A Calling-On Signal must be located below all other signal arms on the same mast.

The Calling-On signal arm must be shorter than the arm of the Home Signal above it.

5.2 Lower Quadrant Semaphore Distant Signals

PRR ONLY

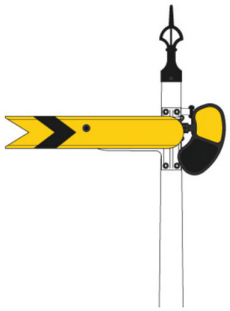
The end of the arm of a Distant Signal must be fish-tailed.

The front of the arm of a Distant Signal must be YELLOW with a BLACK chevron.

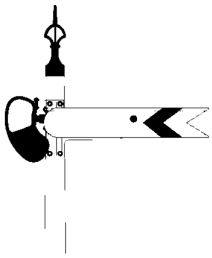
The rear of the arm of a Distant Signal must be WHITE with a BLACK chevron.

A Distant Signal must be the only arm on the mast to which it is attached.

A Distant Signal must be located between 1000 and 1500 metres in advance of the outermost Home Signal.



Distant Signal (Front)



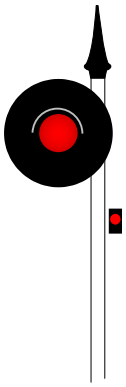
Distant Signal (Rear)

5.3 3-Position Searchlight Permissive Signals

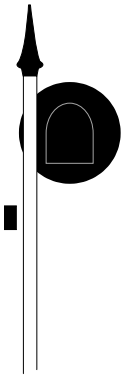
The Searchlight Permissive Signal displays indications by an arrangement of coloured lights.

The Searchlight Permissive Signal must display a RED Marker Light, below and to the right of the signal indication.

The front and rear of the signals are BLACK.



Permissive Searchlight Signal (Front)



Permissive Searchlight Signal (Rear)

5.4 Train Order Signals

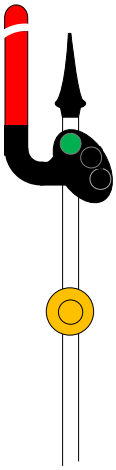
A Train Order Signal is provided at a location which may be attended for the purpose of train working, to indicate the attended status of the location, and to indicate the necessity for a train to stop, or slow to obtain a Train Order.

The end of the arm of a Train Order Signal must be rounded.

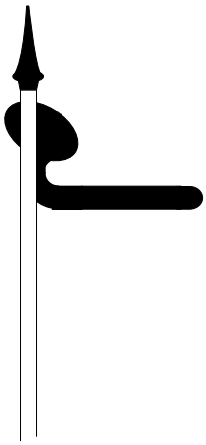
The front of the arm of a Train Order Signal must be RED with a WHITE band.

The rear of the arm of a Train Order Signal must be BLACK.

A YELLOW disc must be displayed when the location is closed and unattended.



Train Order Signal (Front)



Train Order Signal (Rear)

6. LOWER QUADRANT SEMAPHORE SIGNAL INDICATIONS

6.1 Lower Quadrant Semaphore Home Signal at STOP

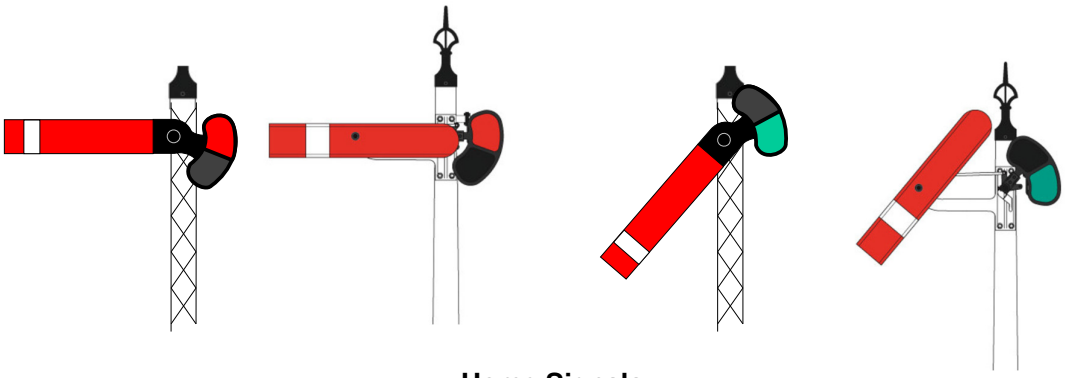
By day, a Home Signal at STOP must display a horizontal signal arm.

At night, a Home Signal at STOP may display a RED light.

6.2 Lower Quadrant Semaphore Home Signal at PROCEED

By day, a Home Signal at PROCEED must display a signal arm pointing DOWN at 45º below horizontal.

At night, a Home Signal at PROCEED may display a GREEN light.



Home Signals

STOP **PROCEED**

6.3 Lower Quadrant Semaphore Calling-On Signal at STOP

PRR ONLY

By day, a Calling-On Signal at STOP must display a horizontal signal arm.

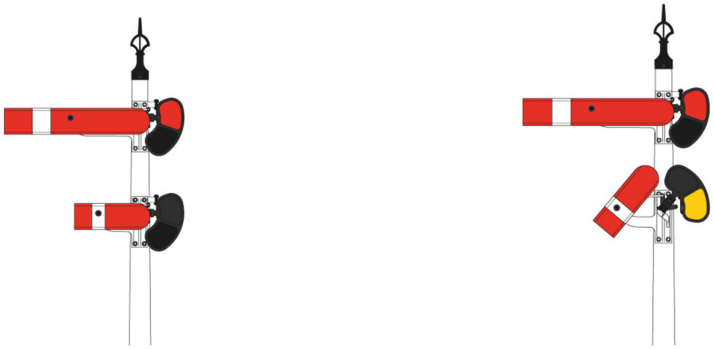
At night, the Calling–On Signal at STOP must display no light.

6.4 Lower Quadrant Semaphore Calling On Signal at CAUTION

PRR ONLY

By day, a Calling-On Signal at CAUTION must display a signal arm pointing DOWN at 45º below horizontal.

At night, a Calling-On Signal at CAUTION may display a YELLOW light.



Calling On Signal

STOP **CAUTION**

6.5 Distant Signal

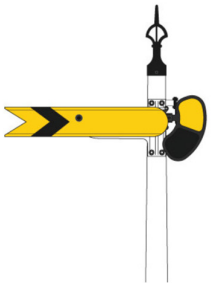
PRR ONLY

Distant Signals are used only on the Pichi Richi Railway.

By day, a Distant Signal at CAUTION must display a horizontal signal arm.

At night, a Distant Signal at CAUTION may display a YELLOW light.

A Distant Signal is fixed to display only a CAUTION indication.



Distant Signal at CAUTION

7. 3-POSITION SEARCHLIGHT PERMISSIVE SIGNALS

7.1 Searchlight Permissive Signal at STOP

By day or at night, a Searchlight Permissive Signal at STOP must display two RED lights in a staggered pattern.

7.2 Searchlight Permissive Signal at CAUTION NORMAL SPEED

By day or at night, a Searchlight Permissive Signal at CAUTION NORMAL SPEED must display display one YELLOW light above a RED light in a staggered pattern.

3-Position Searchlight Permissive Signals

STOP **CAUTION NORMAL SPEED**

8. TRAIN ORDER SIGNALS

8.1 STOP – Stop for Train Order

By day, a Train Order Signal indicating STOP must display a horizontal arm.

At night, the Train Order Signal must may display a RED light.

8.2 CAUTION – Slow for Train Order

By day, a Train Order Signal indicating CAUTION must display an arm at 45º to the horizontal.

At night, the Train Order Signal indicating CAUTION may may display a YELLOW light.

8.3 CLEAR – No Train Order

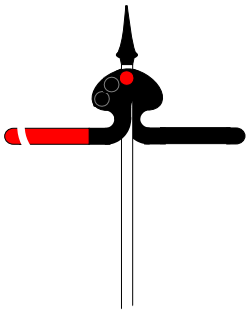
By day, a Train Order Signal indicating CLEAR must display an arm at 90º to the horizontal.

At night, the Train Order Signal indicating CLEAR may display a GREEN light.

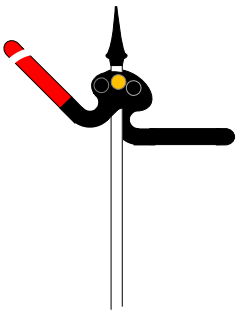
8.4 STATION CLOSED

By day, a Train Order Signal indicating STATION CLOSED must display both arms at 90º to the horizontal in addition to a YELLOW disc.

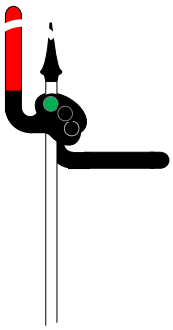
At night, the Train Order Signal may display a GREEN light over a YELLOW light.



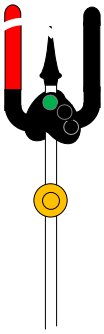
STOP – Stop for Train Order



CAUTION - Slow for Train Order



CLEAR – No Train Order



STATION CLOSED

9. RESPONDING TO FIXED SIGNALS

9.1 Home Signal

9.1.1 STOP

When a Home Signal displays STOP, it indicates that rail traffic must stop before passing the signal.

The rail traffic movement must remain stationary at the signal unless:

(a) a CAUTION indication is displayed by a Calling-On Signal on the same mast, or;

(b) a PROCEED indication is displayed by the Home Signal, or;

(c) an Authority is given to pass the Home Signal at STOP.

9.1.2 PROCEED

When a Home Signal displays PROCEED, it indicates that:

(a) rail traffic may pass the Home Signal without stopping, and;

(b) the points for the movement are set and locked, and;

(c) the route over which the rail traffic is to travel, is clear.

9.2 Calling-On Signal

9.2.1 STOP

PRR ONLY

When a Calling-On Signal displays STOP, it indicates that rail traffic must stop before passing the signal.

The rail traffic movement must remain stationary at the signal unless:

(a) a PROCEED indication is displayed by a Home Signal on the same mast, or;

(b) a CAUTION signal is displayed by the Calling On Signal, or;

(c) an authority is given to pass the Calling-On Signal at STOP.

9.2.2 CAUTION

PRR ONLY

When a Calling-On Signal displays CAUTION, it indicates that:

(a) rail traffic may proceed with caution, and;

(b) the points protected for the movement may not be set or locked, and;

(c) the route over which the rail traffic is to travel, may be occupied.

9.3 Distant Signal

9.3.1 CAUTION

PRR ONLY

When a Distant Signal displays CAUTION it indicates that the Home Signal in advance is at STOP.

Rail traffic must proceed with caution, and be prepared to stop before passing the next signal.

9.4 Permissive Signals

9.4.1 STOP

A Permissive Signal displaying STOP indicates that:

(a) the track beyond the signal is occupied, or;

(b) equipment such as active protection level crossing equipment, or points, cannot be detected to be safe.

When a Permissive Signal displays STOP, rail traffic must stop before passing the signal.

The rail traffic movement must remain stationary at the signal unless:

(c) the track beyond the signal is safe, and;

(d) an Authority to occupy the track beyond the signal is held, or;

(e) a proceed indication is displayed.

9.4.2 CAUTION or CLEAR

A Permissive Signal displaying CAUTION or CLEAR indicates that:

(a) the track beyond the signal is clear, and;

(b) equipment such as active protection level crossing equipment, or points, is safe, and;

(c) rail traffic may proceed in accordance with the Authority held for travel into the Section.

9.5 Train Order Signals

9.5.1 STOP

A Train Order Signal displaying STOP indicates that:

(a) the location is open, and attended, and;

(b) trains must stop to obtain a Train Order.

9.5.2 CAUTION

A Train Order Signal displaying CAUTION indicates that:

(a) the location is open, and attended, and;

(b) trains must slow to less than 10 km/h to obtain a Train Order.

9.5.3 CLEAR

A Train Order Signal displaying CLEAR indicates that:

(a) the location is open, and attended, and;

(b) trains are not required to obtain a Train Order.

9.5.4 STATION CLOSED

A Train Order Signal displaying STATION CLOSED indicates that:

(a) the location is closed, and is unattended, and;

(b) trains must proceed in accordance with the Train Order in effect.

10. OPERATION OF FIXED SIGNALS

Outer Home, Home, Calling On and Train Order Signals must only be operated by the competent worker in charge of the location, or their delegate.

Signals must be operated only by use of the adjacent groundframe or other operating mechanism, and must not be operated by tightening of the pull-wire.

10.1 Home Signals

The normal position of a Home or Outer Home Signal is STOP.

Home or Outer Home Signals must only be operated from the STOP position when rail traffic movements are required to pass them, and must be restored to the STOP position as soon as reasonably practicable, after the rail traffic movement has passed the signal.

10.1.1 Outer Home Signal

PRR ONLY

The Outer Home Signal may be placed to the PROCEED position, for the arrival of rail traffic approaching the signal provided that:

(a) the track between the Outer Home Signal and the Inner Home Signal is unoccupied, and will remain unoccupied, and;

(b) any points between the Outer and Inner Home Signals are set and locked for the Main Line.

10.1.2 Inner Home Signal

The Inner Home Signal may be placed to the PROCEED position, in preparation for the arrival of rail traffic approaching from the Outer Home Signal provided that:

(a) the track over which the rail traffic is to travel is unoccupied and will remain unoccupied, and;

(b) Main Line points within yard limits are set for the Main Line.

10.2 Calling-On Signal

PRR ONLY

Calling-On Signals are used only on the Pichi Richi Railway.

The normal position of a Calling-On Signal is STOP.

A Calling-On Signal must be placed to the CAUTION position only when required for the movement of rail traffic, and must be restored to the STOP position as soon as reasonably practicable, after the intended rail traffic movement has passed the signal.

A Calling On Signal must only be placed to the CAUTION position:

(a) after the approaching rail traffic has stopped before passing the Calling On Signal, and;

(b) if necessary, the rail traffic crew has been told about

- the intended route, and;
- the conditions for entry to the yard.

A Calling On Signal may be placed to the CAUTION position when the intended route for the rail traffic movement is occupied.

10.3 Permissive Signal

Permissive Signals operate either:

(a) automatically, by the passage of rail traffic, and in response to the condition of the track beyond the signal, or;

(b) by the operation of a push-button.

If a Permissive Signal must be operated by use of a push button, this must not be done until rail traffic is ready to proceed past the signal into the Section beyond it.

10.4 Train Order Signal

Train Order Signals must be operated by the Station Master or delegate at an Attended Location, as directed by the Train Controller, to indicate to approaching rail traffic:

(a) if they are required to stop or slow down to obtain Train Orders, or;

(b) if the Location is closed and Unattended.

11. PASSING FIXED SIGNALS AT STOP

11.1 Passing Home or Calling-On Signals at STOP

It may be necessary for rail traffic to pass a Home or Calling-On Signal at STOP.

11.1.1 Worker Responsible for Giving Permission

The competent worker in charge of Location at the time, is responsible for permitting a rail traffic movement to pass a Home or Calling-On Signal at STOP.

When a Station Master is on duty, the Station Master is responsible for permiting rail traffic to pass a Home or Calling-On Signal at STOP.

The Station Master may delegate that responsibility to another competent worker.

If the location is unattended, the Authority to pass a fixed signal at STOP must be included within the Proceed Authority issued for the movement.

The Proceed Authority in this circumstance must also include advice that locaton is unattended.

When Guard in Charge Working is in effect, the Guard in Charge provides permission for rail traffic to pass a Home or Calling On Signal at STOP.

11.1.2 Permission Required

The form of permission required to pass a fixed signal at STOP depends on the circumstances under which it is given.

(a) If a Station Master is on duty, the Station Master or delegated worker may authorise rail traffic to pass a Home or Calling-On Signal at STOP by:

  (i) during daylight, by displaying a steady GREEN flag from a safe position adjacent to the Home or Calling-On Signal, or;

  (ii) during times of low visibility, by displaying a steady GREEN light from a safe position adjacent to the Home or Calling-On Signal, or;

  (iii) a verbal direction.

(b) If a Location is normally attended, but is, at the time, unattended, an Authority to pass a Home or Calling On Signal at STOP must be included within the Proceed Authority issued for a rail traffic movement.

PRR ONLY

(c) If Guard in Charge Working is in effect, the Guard in Charge is the designated Worker in charge of the Location, and must permit rail traffic to pass a Home or Calling-On Signal at STOP by:

  (i) during daylight, by displaying a steady GREEN flag displayed from the brakevan, on the Driver's side of the movement, or;

  (ii) during times of low visibility, by displaying a steady GREEN light displayed from the brakevan, on the Driver's side of the movement, or;

  (iii) a verbal direction.

11.1.3 Rail Traffic Response

When a Home or Calling-On Signal indicates STOP, rail traffic must stop before passing the signal.

After stopping, the rail traffic movement may pass signal only if:

(a) authorised to pass the Home or Calling On-Signal at STOP from the worker in charge of the location, or;

(b) if permission to pass the fixed signal at STOP is included within the Proceed Authority for the movement.

Once permitted to pass a Home or Calling-On Signal at STOP is given, the rail traffic crew must:

(c) confirm that the points are set for the intended route, and;

(d) pass the Home or Calling-On Signal at STOP, and;

(e) proceed at Restricted Speed, and;

(f) expect the route ahead to be occupied, and;

(g) be prepared to stop short of any obstruction.

11.2 Passing Permissive Signals at STOP

It may be necessary for rail traffic to pass a Permissive Signal at STOP.

When a Permissive Signal indicates STOP, rail traffic must stop before passing the signal.

After stopping, the rail traffic movement may pass signal only if:

(a) an Authority is held to occupy the track past the Permissive Signal, and;

(b) the track condition beyond the Permissive Signal is safe for travel.

If the Permissive Signal indicates that the track beyond the signal may be occupied, Rail Traffic must pass the Permissive Signal at STOP, and proceed at Restricted Speed, expecting to find the track obstructed.

If the Permissive Signal is associated with equipment such as active protection level crossing equipment, or points, Rail Traffic must proceed past the Permissive Signal at STOP, and maintain Restricted Speed only until past the associated equipment.

12. IRREGULAR FIXED SIGNALS INDICATIONS

A fixed signal indication other that those outlined in the Rules must be treated as an illegal signal indication.

A fixed signal must be treated as a STOP signal if:

(a) it displays an illegal signal indication, or;

(b) there is no indication where there should be, or;

(c) it is not understood.

Competent Workers must report irregular signal indications to the Train Controller.

The Train Controller must tell a Signals Maintenance Representative about the irregular fixed signal indication.

The Signals Maintenance Representative must arrange for repair of the signal.

13. DE-COMMISSIONED SIGNALS

Fixed signals may be temporarily or permanently de-commissioned.

A Network Notice must be issued, outlining the circumstances of the de-commissioning of the fixed signals.

A permanently de-commissioned fixed signal must be removed as soon as reasonably practicable.

13.1 Identifying Decommissioned Fixed Signals

De-commissioned fixed signals must:

(a) if the arm remains affixed, be provided with a WHITE cross, fixed on and partially obscuring the signal arm on the front side, or;

(b) have the signal arm removed.

The spectacle lenses must be removed from de-commissioned fixed signals.

Decomissioned Signals

13.2 Responding to Decommissioned Fixed Signals

De-commissioned fixed signals do not display any indication or determine any condition on rail traffic movement.

No permission is required to pass a de-commissioned fixed signal.

END OF SECTION 9

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 10

Indicators, Rail Traffic Markers and Signs

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules about indicators, rail traffic markers and signs used on the Heritage Railways in South Australia.

2. INDICATORS

Indicators provide a visual indication of the status of points and some other equipment.

Points indicators provide rail traffic crews with a visual indication of the setting of points.

Two types are provided:

- switch-stand indicator banners, and
- cheese knob weight indicators.

Each type is directly connected to the points operating mechanism.

2.1 Switch-stand Indicator

Switch-stand indicators are provided to most main line points.

A switch-stand indicator must consist of a reflective banner indicator provided at right angles to the track.

2.1.1 Positions – Main Line Points

The indicator banner on Main Line points must display:

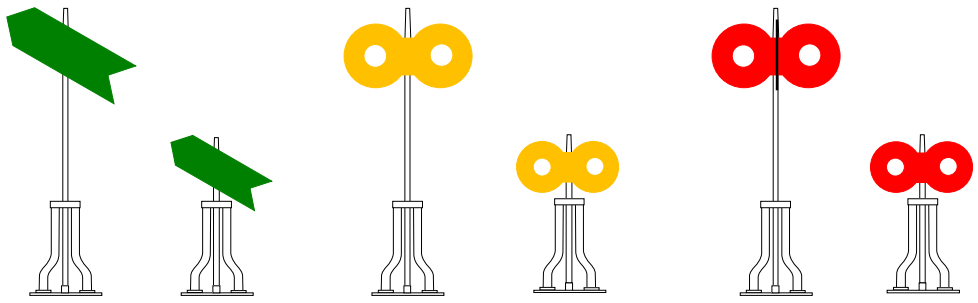
(a) a GREEN arrow when the points are set for the Main Line, or;

(b) a YELLOW dumbbell when the points are set for the Crossing Loop, or;

(c) a RED dumbbell when the points are set for a Siding or Dead End.

The points are in the normal position when set for the Main Line.

The points are in the reverse position when set away from the Main Line.



Points Indicators – Main Line Points

Set for Main Line **Set for Crossing Loop** **Set for Siding**

2.1.2 Positions - Yard Points

Points operating mechanisms may display an indication of the setting of yard points.

Where provided, the indicator banner on yard points must display:

(a) a YELLOW circle when the points are set for the normal position, or;

(b) one or more WHITE squares when points are set for the reverse position.

The points are in the normal position when set for the straight route.

The points are in the reverse position when set for the diverging route.

Points Indicators – Yard Points

Set for Straight **Set for Turnout**

2.1.3 Positions - Cheese-Knob Points

Cheese knob points operating mechanisms must display an indication of the setting of the points, for facing rail traffic movements.

The Cheese Knob weight must display

(a) a WHITE face to rail traffic movements approaching in the facing direction, when the points are set for the normal position, or;

(b) a RED face to rail traffic movements approaching in the facing direction, when points are set for the reverse position.

Cheese Knob points are in the normal position when set for the straight route and are in the reverse position when set for the diverging route.

Cheese Knob Points Indicator

Points in Normal Position (Straight) **Points in Reverse Position (Diverge)**

NOTE	*The indication on a Cheese Knob mechanism is designed to be displayed to a movement travelling in a facing direction.*

2.2 Derail Indicator

Some derails and catchpoints are provided with switch stand-type operating mechanisms to which banner-type indicators are attached.

2.2.1 Positions – Derail or Catchpoint

The normal position of a derail is On-Rail or set to derail rail traffic.

The normal position of a catchpoint is Open, or set to derail rail traffic.

The reverse position of a derail is Off-Rail or set for safe rail traffic movement.

The reverse position of a catchpoint is Closed, or for safe rail traffic movement.

Derails and Catchpoints must be set in the Normal position except when rail traffic is required to pass over them.

The derail or catchpoint indicator must display:

(a) a PURPLE or BLUE diamond banner, when the points are set in the normal position, or;

(b) a WHITE square banner, when the points are set in the reverse position.

A rail traffic movement must be stopped before passing a derail or catchpoint indicator displaying a BLUE or PURPLE diamond.

Derail or Catchpoint Indicator

Derail in Normal Position (On Rail) Catchpoint in Open Position

Derail in Reverse Position (NOT On Rail) Catchpoint in Closed Position

3. RAIL TRAFFIC MARKERS

Each end of a train consist or track vehicle must be defined by markers, lights, or both.

The Driver is responsible for the management of lighting on motive power units.

The Guard is responsible for the management of lights and markers on the rear of train consists.

The Track Vehicle operator is responsible for the management of lighting on track vehicles.

3.1 Purpose of Rail Traffic Markers

Lights and other devices that are used as markers are used to:

(a) indicate the normal direction of travel, and;

(b) indicate that a consist is complete, and;

(c) enhance the visibility of rail traffic.

Where provided, lights on motive power units must be illuminated to enhance their visibility, particularly when moving, and at times of low visibility, or in darkness.

3.2 Front of Rail Traffic

WARNING!	*Where headlights are provided to track vehicles, these must be illuminated during travel, and the following rules apply.*

Except where specifically authorised to the contrary, one or more WHITE headlights must be displayed to the front of the leading motive power unit.

Headlights must be set on full at the front of all moving rail traffic unless it is necessary for it to be dimmed as prescribed within this rule.

3.2.1 Dimming Headlights

Rail traffic crews must dim headlights under the following conditions:

(a) when approaching, standing or working at locations where shunting is being performed, or;

(b) when handsignals are being displayed, or;

(c) when approaching people or workers on or about the track, or;

(d) when approaching or stopped behind other rail traffic, or;

(e) when approaching and crossing the lead end of opposing rail traffic, or;

(f) when a train is approaching road traffic on adjacent parallel roadways, at night, or;

(g) in weather conditions where headlights may reflect back and affect the rail traffic crew's vision, or;

(h) when operating within workshops and carriage sheds.

3.2.2 Turning Headlight Off

The headlight must be turned off when:

(a) rail traffic has stopped clear at a crossing location, waiting for opposing rail traffic to arrive, or;

(b) when motive power is being prepared or stabled and movement is not imminent.

3.2.3 Front Marker Lights

Where provided, marker lights which display white light in a forward direction on the front motive power unit, must be illuminated.

Only white lights may be displayed at the front of a rail traffic movement.

3.2.4 High Visibility Lights

Where used, Visibility Lights are used to increase the visibility of rail traffic movements for road users, pedestrians, track workers and other personnel.

High visibility lights may consist of:

(a) strobe or rotating beacons, or;

(b) "ditch" or "crossing" lights mounted to form a triangular display with the headlight.

"Ditch" or "crossing" lights must be WHITE, and may be arranged to flash when the motive power audible warning device is operated.

3.2.5 Failure of Front Headlight

All cases of total headlight failure must be reported to the Train Controller.

The Train Controller and the rail traffic crew must make arrangements to:

(a) effect repairs, or;

(b) re-marshal the motive power units, or;

(c) replace the lead motive power unit.

If this is not possible, the rail traffic may proceed to the next repair facility.

WARNING!	*If headlights fail, a rail traffic crew may need to make additional use of the whistle to compensate for the lack of visual warning.*

If the headlight has failed or no headlight is provided, and visibility is good, rail traffic may travel at Normal Speed except:

(a) when approaching level crossings, rail traffic must travel at restricted speed, prepared to stop, and not proceed over the level crossing, until:

- active control level crossing warning equipment is operating, or;
- road or pedestrian traffic is not approaching or has stopped at the crossing, and;

(b) when approaching locations where rail traffic crew are aware of, or can see workers or other personnel present on the ground, rail traffic must travel at restricted speed.

During periods of low visibility, rail traffic must travel at restricted speed.

3.3 Rear of Rail Traffic

WARNING!	*Where red rear marker lights are provided to track vehicles, these must be illuminated during travel, and the following rules apply.*

At least one RED light, or reflective end-of-train marker must be displayed on the rear vehicle of a rail traffic movement.

An end-of-train marker must be provided on the last vehicle of a rail traffic movement and must be visible from behind and to each side.

End of train markers may consist of:

(a) heritage marker lights (lamps) wherever possible, or;

(b) RED marker lights, or;

(c) reflective RED markers, or;

(d) more than one of the above in combination.

NOTE	*A WHITE disc may be displayed, but only in addition to any combination of RED lamps, lights or reflectors.*

If rail traffic is assisted by motive power propelling from the rear for any reason, the assisting motive power must display the end of train marker.

3.3.1 Rear Marker Lights

Heritage marker lights (lamps) must be carried on the trailing vehicle of a rail traffic movement wherever possible.

Marker lights must be illuminated during the hours of darkness or when visibility is low.

Marker lights must be arranged so that a RED light is exhibited to the rear.

YELLOW lights may be displayed to the front and side.

Motive power units travelling outside of Station Yard Limits, without vehicles attached must display illuminated RED marker lights to the rear wherever possible.

3.4 Other Lights

Where provided, motive power number lights must be illuminated.

Where provided, side lights and equipment lights must be illuminated, to improve the visibility of rail traffic movements during the hours of darkness.

Where provided, high visibility lights (“ditch” lights, “crossing lights” or “strobe lights”) must be illuminated when approaching level crossings.

4. SIGNS

NOTE	*The description of signs within the rules does NOT mandate their use on any particular railway. Not all of the following signs will be in use on all Heritage Railways in South Australia.*

Signs may be permanently or temporarily erected alongside the track to identify landmarks, locations and safeworking features on the railway.

Signs must be located to the left of the track, as seen by approaching rail traffic, unless it is not reasonably practicable to do so, or is otherwise stipulated by the rules.

Signs must be large enough, and be placed high enough off the ground in a location within 3 metres of the nearest rail, to enable them to be clearly seen by crews of approaching rail traffic.

Where mandated by the rules, signs must display reflective faces or features.

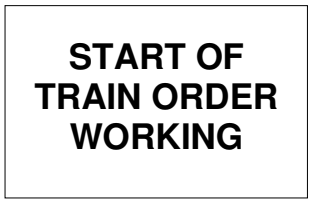
4.1 End or Start of Train Order Working Signs

START OF TRAIN ORDER WORKING and END OF TRAIN ORDER WORKING signs are permanently erected to mark where Train Order Working territory commences or ends.

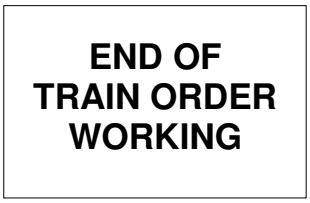
The sign must be rectangularly shaped, with a WHITE face and BLACK characters.

The front of the sign must display the words “START OF TRAIN ORDER WORKING”.

The rear of the sign must display the words “END OF TRAIN ORDER WORKING”.



START OF TRAIN ORDER WORKING



END OF TRAIN ORDER WORKING

4.1.1 Responding to a Start or End of Train Order Working Sign

Rail Traffic movements must not pass a START OF TRAIN ORDER WORKING sign until the rail traffic crew have an Authority to enter TOW Territory, this being:

(a) a Proceed Authority, Work Authority, or Conditional Proceed Authority, if the rail traffic is a train entering TOW Territory to proceed into a section, or;

(b) a Track Occupancy Authority, if the rail traffic is a track vehicle entering TOW Territory to proceed into a section, or;

(c) the Train Controller’s permission to enter an adjoining unattended Yard Limit for shunting purposes, or

(d) the permission of the worker in charge of a location, to enter an adjoining attended Yard Limit for shunting purposes, or;

(e) the permission of the Possession Coordinator if the rail traffic is to enter the limits of a Local Possession.

A rail traffic movement must not pass an END OF TRAIN ORDER WORKING sign until the rail traffic crew have an Authority or permission to occupy the territory beyond the sign.

NOTE	*The permission required to occupy the territory beyond the END OF TRAIN ORDER WORKING sign is determined by local procedures.*

4.2 Yard Limit Signs

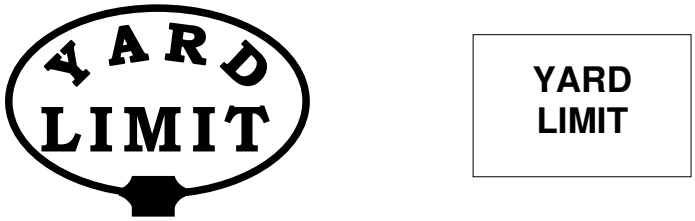
A Yard Limit sign must be permanently erected to mark the outer limit of a Yard, and the end of the Main Line Section.

A Yard Limit Sign must not be provided at a location where a Home Signal is used to designate the outer limit of a Yard.

Yard Limit signs must be placed between 50 and 200 metres in advance of the outermost points at a Block Location, and wherever practicable, at a location from which the outermost points can be seen by the crew of approaching rail traffic.

The Yard Limit sign may be elliptical or rectangular in shape, and display BLACK characters on a WHITE background.

The front and rear of the Yard Limit sign must display the words “YARD LIMIT”.



YARD LIMIT signs

4.2.1 Responding to a YARD LIMIT sign

Rail Traffic movements must not pass a YARD LIMIT unless:

(a) when arriving at a Block Location, the rail traffic crew have been authorised to proceed into the limits of the block location, or;

(b) when departing a Block Location, the rail traffic crew are in possession of an Authority to occupy the Section, or

(c) when entering the limits of a Local Possession, the rail traffic crew has been authorised by the Protection Coordinator to enter the limits of a Local Possession.

4.3 Control Point Sign

A Control Point sign must be permanently erected to mark the location of a Control Point.

The Control Point signs for each direction of travel must be placed directly opposite each other.

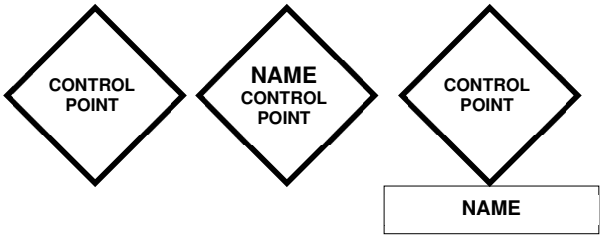
The sign must

(a) be diamond shaped, and display a WHITE face, and;

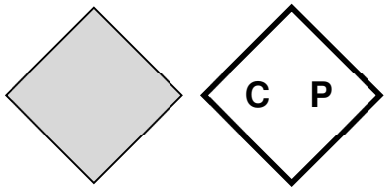
(b) display the words “CONTROL POINT” in BLACK characters on the front of the sign.

The Control Point Name may be included on, or added to the front of the sign.

The rear of the sign may be blank, or may display the characters “C P.



Control Point Signs – Front



Control Point Signs – Rear

4.4 Location Ahead Sign

A Location Ahead sign is permanently erected to provide a warning to rail traffic crews that they are approaching a Block Location.

A Location Ahead Sign must not be provided where a Distant Signal is in use.

A Location Ahead Sign must be located between 1000 metres and 1200 metres in advance of the Yard Limit sign for that location.

The Location Ahead Sign must:

(a) be square or rectangular in shape, consisting of WHITE vertical boards mounted on a frame, or;

(b) consist of an YELLOW upward-pointing triangle, which may be placed on a neutral coloured square or rectangular background, and;

(c) display the name of the Location ahead, in BLACK characters on its face.

A Location Ahead sign may also display the distance to the Yard Limit Sign or first Home Signal.

LOCATION AHEAD signs

4.4.1 Responding to a LOCATION AHEAD sign

The crew of a rail traffic movement approaching a LOCATION AHEAD sign must:

(a) verify the limit of authority for the Authority currently in effect, and;

(b) if required, slow and be prepared to stop before passing the YARD LIMIT sign.

4.5 Track Speed Sign

A Track Speed sign is permanently erected to display the normal maximum speed applicable to all rail traffic, for the portion of the Railway beyond the sign.

Depending upon the Railway, speeds are displayed in Kilometres per Hour (km/h) or the imperial measurement of Miles per Hour (MPH).

Track Speed signs may be square, or rectangular, and must display BLACK numbers on a WHITE background.

Track Speed Sign

4.5.1 Responding to a Track Speed Sign

The crew of a rail traffic movement approaching a Track Speed sign must:

(a) if necessary, reduce the speed of the rail traffic movement to no more than the speed displayed on the sign, and;

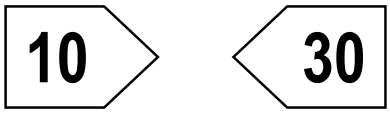
(b) travel at no more than that speed over all curves and straight track, until the whole of the train passes another speed sign.

4.6 Curve Speed Signs

A Curve Speed sign is permanently erected to display the maximum speed applicable to all rail traffic on the curve immediately beyond the sign.

Depending upon the Railway, speeds are displayed in Kilometres per Hour (km/h) or the imperial measurement of Miles per Hour (MPH).

Curve Maximum Speed signs must display BLACK numbers on a WHITE background, and must have one square and one pointed end, which may point in either direction.



Curve Speed Signs

4.6.1 Responding to a Curve Speed Sign

The crew of a rail traffic movement approaching a Curve Speed sign must:

(a) if necessary, reduce the speed of the rail traffic movement to no more than the speed displayed on the sign, and;

(b) travel at no more than that speed over the next curve, and;

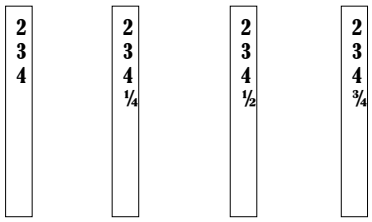
(c) as appropriate, resume normal speed for the portion of track when the whole of the train has completely cleared the curve.

4.7 Milepost Signs

PRR ONLY

Mileposts are permanently erected each quarter mile, and are usually located on the left side of the track when seen from rail traffic travelling from Quorn, to indicate track location measured in Miles, from Adelaide, via Burra and Orroroo.

Mileposts must display BLACK numbers on a WHITE background.



Milepost Signs (Full, ¼, ½, ¾ .)

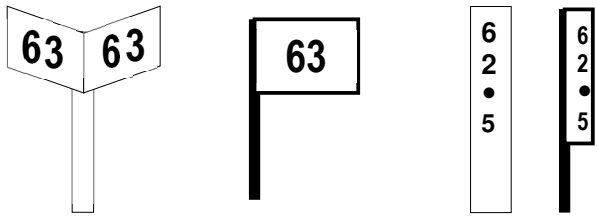
4.8 Kilometre Signs

Kilometre signs are used only on the SteamRanger Heritage Railway.

Kilometre signs are permanently erected each kilometre, and are usually located on the left side of the track when seen from rail traffic travelling from Mount Barker, to indicate track location, measured in kilometres, from Adelaide, via Mount Barker Junction.

Kilometre signs must display BLACK numbers on a WHITE or neutral background with horizontally arranged numerals.

Where provided, Half-Kilometre signs must display BLACK numbers on a WHITE or neutral background with vertically arranged numerals.



KILOMETRE POST signs (Full and Half)

4.9 Curve Number Signs

PRR ONLY

Curve Number signs are permanently erected to designate curve numbers, starting sequentially from Quorn Station.

Curve number signs must be square and display BLACK numbers on a WHITE background.

CURVE NUMBER sign

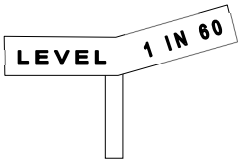
4.10 Gradient Signs

PRR ONLY

Gradient Signs are permanently erected to display the approximate gradient of the track, where a significant change of track gradient occurs.

The gradient is expressed as a ratio of 1 in (gradient value).

Gradient signs must display BLACK numbers on a WHITE background.



GRADIENT sign

4.11 Predictor-Circuit Level Crossing Sign

Predictor-circuit Level Crossing signs are permanently erected to indicate the commencement of track circuits for an Active Protection level crossing that is provided with predictor circuitry.

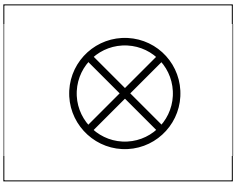
Predictor-circuit Level Crossing signs must:

(a) be located at the commencement of the level crossing track circuit, and;

(b) display a BLACK cross within a BLACK circle on a WHITE background, and;

Predictor-circuit Level Crossing signs may be square or rectangular in shape.

A separate Level Crossing Whistle Sign must be provided if required.



Predictor-circuit Level Crossing Sign

4.11.1 Responding to a Predictor-circuit Level Crossing sign

The crew of a rail traffic movement approaching a Predictor-circuit Level Crossing sign must:

(a) prepare to sound the whistle before reaching the level crossing, and;

(b) observe the level crossing for the presence or approach of road or pedestrian traffic, and

(c) observe that the level crossing protection equipment is operating, and;

(d) not allow the speed of the rail traffic movement to increase until the leading vehicle of the movement has occupied the level crossing.

4.12 Advisory Signs

Advisory Signs are permanently erected to advise to rail traffic crews about operating conditions for the immediate area beyond the sign.

Advisory signs must be rectangular, display BLACK numbers on a WHITE background.

EXAMPLE ADVISORY SIGNS

Station Name signs are advisory signs, but they may display the Station Name in heritage colours and formats.

NOTE	*Some Heritage Signs may feature WHITE characters on a RED background.*

4.13 Whistle Signs

Whistle signs must be placed at any location where rail traffic movements must sound an audible warning.

Whistle signs may be permanently or temporarily placed alongside the track.

4.13.1 Level Crossing Whistle Signs

A Level Crossing Whistle Sign is permanently erected on the approach to a level crossing, to indicate that:

(a) the rail traffic movement is approaching a level crossing, and;

(b) an audible warning must be sounded for the level crossing.

A Level Crossing Whistle sign must:

(c) be located between 150 and 400 metres in advance of the level crossing, and;

(d) display a letter "W" in BLACK on a WHITE background.

The sign may be keystone or rectangular in shape.

WARNING!	*The distance from the level crossing sign to the level crossing must be appropriate to provide adequate audible warning of approaching rail traffic travelling at the normal maximum speed for that location.*

4.13.1.1 Responding to a Level Crossing Whistle Sign

The crew of a rail traffic movement approaching a Level Crossing Whistle sign must:

(a) prepare to sound the whistle before reaching the level crossing, and;

(b) observe the level crossing for the presence or approach of road or pedestrian traffic, and

(c) if the level crossing is actively protected, observe that the level crossing protection equipment is operating.

Level Crossing Whistle Signs

NOTE	*A Level Crossing Whistle sign may be placed at any location – not just at a level crossing - where an audible warning must be sounded.*

4.13.2 Worksite Whistle Signs

A Worksite Whistle Sign is a temporary sign used to provide for the sounding of an audible warning for workers at the for a worksite

The Worksite Whistle Sign:

(a) must be keystone shaped, and display a letter “W” in BLACK characters on a WHITE background, and;

(b) must be located between 250 and 500 metres in advance of the worksite, and

(c) may include the word “GANG” in BLACK characters, on its face, and;

(d) may include a YELLOW border around its perimeter.

Worksite Whistle Sign

WARNING!	*The distance from the Worksite Whistle Sign to the worksite must be sufficient to provide adequate audible warning of approaching rail traffic travelling at the normal maximum speed for that location.*

4.13.2.1 Responding to a Worksite Whistle Sign

The crew of rail traffic approaching a Worksite Whistle sign must sound the whistle to provide an audible warning to any workers that may be in the vicinity.

The audible warning must be repeated if sighting conditions are poor or interrupted.

4.14 STOP Signs

STOP signs may be temporarily or permanently fixed in position at any point where rail traffic must stop.

Permanent STOP signs may be affixed to doors, gates and at other locations where a stop is mandatory;

Temporary STOP signs may be secured to the rails, or placed in the centre of the track.

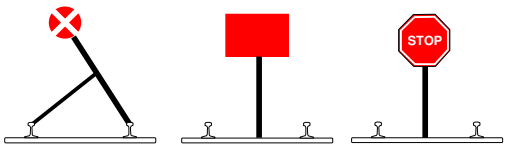
A STOP Sign may be round, rectangular, square or octagonal in shape.

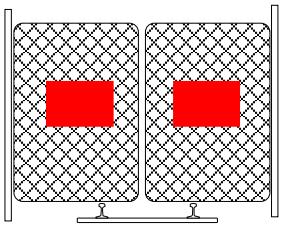
The face of a STOP sign must be RED, reflective, and may include the word “STOP”.

STOP signs must be used for the protection of an obstruction or a worksite in a section.

STOP Signs must be placed:

- so that adequate sighting distance is provided to allow rail traffic crews to identify, react and stop short of the sign, and;
- at a sufficient distance from the hazard, to ensure that adequate protection is provided.





STOP signs

Temporary STOP Signs **Permanent STOP Sign**

4.14.1 Responding to a STOP sign

Rail traffic crews must stop the rail traffic movement before it passes any STOP sign.

A permanent STOP sign may be passed only after the conditions for travel beyond it have been established and addressed.

Temporary STOP signs must not be removed from the track without the permission of, or by the worker who arranged for it to be put in place.

Rail traffic crews must establish the reasons for the placement of the STOP sign.

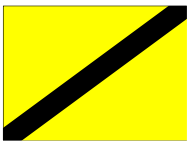
4.15 STOP AHEAD Signs

A STOP AHEAD sign may be temporarily or permanently erected to warn rail traffic crews that a STOP sign is ahead.

Where used, the STOP AHEAD sign must be:

(a) placed between 800 and 1000 metres in advance of the STOP sign, and;

(b) rectangular in shape, with a full YELLOW face and a diagonal BLACK stripe.



STOP AHEAD Sign

4.15.1 Responding to a STOP AHEAD Sign

Crews of Rail Traffic movements approaching a STOP AHEAD sign must, if necessary, slow the rail traffic movement and be prepared to stop before the STOP sign if required.

4.16 TSR Signs or TSR Marker Posts

Temporary Speed Restriction (TSR) signs and TSR Marker Posts are temporary signs that may be used on the railway, to warn rail traffic crews of the approach to, the commencement of, and the end of a TSR.

NOTE	*The deployment of TSR Signs is outlined in Section 17 – Work On Track.*

Where there is a reasonable risk of theft or damage to signs, TSR Marker Posts may be used in lieu of TSR signs.

TSR Marker Posts must not be used unless rail traffic crews have been advised in writing, of the details of the TSR.

TSR Marker Posts must be placed on both sides of the track, at the start and end of a portion of track subject to a TSR.

One side of a TSR Marker Post is used to indicate the start of a TSR and the other side is used to indicate the end of a TSR.

NOTE	*The use of TSR Signs remains the preferred option wherever possible.*

4.16.1 TSR AHEAD Sign

TSR AHEAD signs are used to warn rail traffic crews that a TSR is ahead.

Where used, a TSR AHEAD Sign must be placed between 800 and 1000 metres in advance of the TSR START sign.

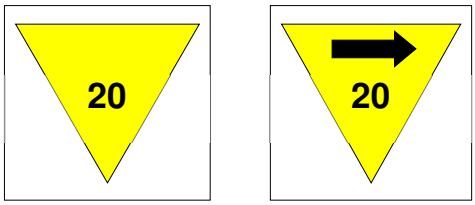
The TSR AHEAD sign must display:

(a) a reflective YELLOW downward-pointing triangle on its face, and;

(b) the speed applicable for the TSR ahead, in BLACK numerals on the face of the sign, and

(c) a BLACK arrow on the face of the sign, indicating the route applicable, if the TSR applies to a diverging route

If TSR Marker Posts are used, a TSR AHEAD Sign is not required.



TSR AHEAD Signs

4.16.1.1 Responding to a TSR AHEAD Sign

The crew of a rail traffic movement approaching a TSR AHEAD Speed sign must respond to ensure that the movement passes the TRS START Sign up ahead, at no more than the speed displayed on the TSR Signs.

4.16.2 TSR START Sign or TSR START Marker Post

TSR START signs and TSR START Marker Posts are used to advise rail traffic crews of the start point of a TSR.

Where used, a TSR START Sign or TSR START Marker Posts must be placed at the start of a portion of track subject to a TSR.

A TSR START Sign:

(a) may be square or rectangular or diamond shaped, and;

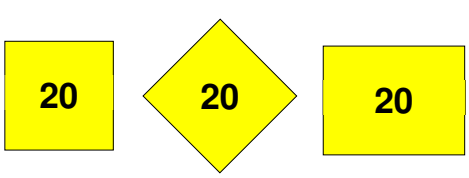
(b) must display a reflective YELLOW face, and;

(c) must display the speed applicable for the TSR, in BLACK numerals on its face.

TSR START Marker Posts must display:

(d) a rectangular BLACK plate, mounted on a post, and;

(e) a prominent YELLOW vertical reflective stripe on the face of the plate.



TSR START Signs

TSR START Marker Post

NOTE	*The TSR START Marker Post is double-sided.* *The Yellow TSR START Marker is displayed on one side.* *The White TSR END Marker is displayed on the reverse.*

4.16.2.1 Responding to a TSR START Sign or TSR START Marker Post

Before passing a TSR START sign or TSR START Marker Post, the crew of approaching rail traffic must ensure that the movement is travelling at or below:

(a) the speed displayed on the TSR START Sign, or;

(b) the speed detailed in the written advice provided to them.

If the speed displayed by the TSR START Sign conflicts with that provided by the written advice, the lower of the two speeds must be observed.

The rail traffic movement must travel at or below that speed until it has passed clear of the portion of track subject to the TSR.

4.16.3 TSR END Sign or TSR END Marker Post

TSR END signs and TSR END Marker Posts are used to advise rail traffic crews of the end of a TSR.

Where used, a TSR END Sign or TSR END Marker Posts must be placed at the end of a portion of track subject to a TSR.

The TSR END sign must display:

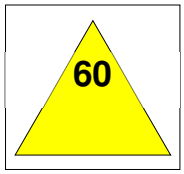
(a) a reflective YELLOW upward-pointing triangle on its face, and;

(b) the speed applicable beyond the TSR END sign, in BLACK numerals its face.

A TSR START Marker Post must display:

(c) a rectangular BLACK faced plate, mounted on a post, and;

(d) a prominent WHITE vertical reflective stripe on the face of the plate.



TSR END Sign

TSR END Marker Posts

NOTE	*The TSR END Marker Post is double-sided.* *The White TSR END Marker is displayed on one side.* *The Yellow TSR START Marker is displayed on the reverse.*

4.16.3.1 Responding to a TSR END Sign or TSR END Marker Post

The crew of rail traffic approaching a TSR END sign or TSR END Marker Post, must ensure that the movement is travelling at or below:

(e) the speed displayed on the TSR START Sign, or

(f) the speed detailed in the written advice provided to them.

When the whole of the rail traffic movement has passed the TSR END sign or TSR END Marker Post, the crew of the rail traffic movement may allow the speed of the movement to be increased:

(a) to that displayed on the TSR END sign, or;

(b) to that applicable for any adjoining TSR, or;

(c) to that normally applicable for that portion of track.

NOTE	*The deployment of TSR Signs is outlined in Section 17 – Work On Track.*

END OF SECTION 10

Heritage Railways of South Australia

Railway Safeworking Rules

Section 11

Written Authorities

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with the issue and receipt of Authorities on Heritage Railways in South Australia.

2. GENERAL

Written Authorities are used to make sure safeworking instructions and information are clear, complete and issued in a consistent way.

Written Authorities must be issued by the Train Controller to Competent Workers.

Written Authorities must be transmitted using voice communication and recorded in writing.

2.1 Forms Used

2.1.1 Train Order Form

A Train Order form is used to issue:

(a) a Proceed Authority, or;

(b) a Work Authority, or;

(c) a Restraint Authority.

2.1.2 Track Work Form

A Track Work Form is used to issue:

(a) a Local Possession Authority, or;

(b) a Track Occupancy Authority, or;

(c) a Track Work Authority.

3. PROTOCOLS FOR ISSUE OF AN AUTHORITY

3.1 Assurances

Before issuing an Authority, the Train Controller must ensure all information is up to date relating to:

(a) rail traffic identification, and;

(b) the status of unfulfilled Authorities currently in effect, and;

(c) the location of rail traffic, and;

(d) the location of worksites, and;

(e) the integrity of the route, and;

(f) track conditions including Temporary Speed Restrictions, and;

(g) other conditions for which advice to workers is required.

3.2 Preparation of an Authority

Authorities must be completed by the Train Controller and recorded by the intended recipient at the time of their issue.

The Train Controller must direct the recipient to make a sufficient number of copies of Authorities to be made, for distribution to those that require them.

Authorities must be issued by the Train Controller, and must:

(a) be uniquely identified, and;

(b) be clearly legible, and;

(c) contain only information or instructions essential to rail traffic movements, or track occupancies and;

(d) be compiled and recorded without deletions, alterations, or additions, and;

(e) not contain any letters, words or numerals surrounded by circles, brackets or other characters, and;

(f) contain only authorised abbreviations.

3.3 Authority Format

The following information must be recorded in the spaces provided on the Authority form:

(a) the Authority type, and;

(b) identification number of Authority, and;

(c) date and time of issue, and;

(d) identity of rail traffic or track worker for which the Authority is intended, and;

(e) leading motive power unit, and;

(f) location names in upper case block letters, and;

(g) the limits of the authority, and;

(h) name of Train Controller, and;

(i) identity of the recipient of the Authority, and;

(j) any other instructions, and;

(k) date and time at which read back is confirmed correct.

3.4 Abbreviated Terms

Only approved abbreviated terms may be included within an Authority.

NOTE	*Refer to Section 7 - Written and Verbal Communication.*

3.5 Transmission

When dictating an Authority, the Train Controller must dictate it at a speed that allows the recipient to record it during transmission.

The Train Controller must:

(a) clearly pronounce all information, and;

(b) pause if necessary, during the transmission, and;

(c) if necessary, use the phonetic alphabet, or spell numerals for clarity.

NOTE	*Refer to Section 7 - Written and Verbal Communication.*

3.6 Error During Transmission

If an error is detected during transmission of the Authority, the Train Controller must:

(a) cease issuing the Authority, and;

(b) write “NOT ISSUED” in large upper-case block letters diagonally across the face of the Train Controller’s copy, and;

(c) tell the recipient to write “NOT ISSUED” in large upper-case block letters diagonally across the face of each copy of the partially prepared form, and;

(d) issue a replacement Authority.

A replacement Authority for one that is not issued, may have the same identification number.

4. RECEIPT OF AUTHORITY

During transmission, the recipient must legibly record:

(a) the Authority as it is being transmitted, and;

(b) location names in upper case block letters, and;

(c) details as they are being transmitted and not from memory, presumption or notes.

4.1 Challenging Errors

If an error or inconsistency is identified or suspected during transmission of an Authority, the recipient must:

(a) challenge the Authority, and;

(b) seek clarification.

4.2 Error During Receipt

If the recipient makes an error during receipt of the Authority the recipient must:

(a) cease recording the Authority, and;

(b) advise the Train Controller that an error has been made, and;

(c) when advised to do so, write “NOT ISSUED” in large upper-case block letters diagonally across the face of each copy of the partially prepared form, and;

(d) prepare to receive another Authority.

4.3 Copies of Authorities

Once they are in effect, Authorities must not be copied or re-written by any means.

If multiple copies of Authorities are required, all copies must be:

(a) recorded during transmission from the Train Controller, and;

(b) produced using carbon paper between forms, or self-carbonating forms, and;

(c) be clearly legible.

The original copy of a Train Order must be provided to the driver of the leading motive power unit.

Additional copies of a Train Order must be provided to the driver of any assisting motive power unit, and to the Guard.

Where the Train Order is received by a worker other than those to whom it is addressed, a copy of the Train Order must remain in the Train Order book.

The original copy of a Work on Track Authority must be provided to the Worksite Protection Officer or the Possession Coordinator.

Additional copies of a Work on Track Authority form are not required.

5. READ BACK OF AUTHORITIES

When the issue of the Authority has been completed, the Train Controller must tell the recipient to read-back the Authority, when ready.

The recipient must read back the copy of the Authority.

The Train Controller must:

(a) during the read back, verify that the content of the Authority matches the content of the Authority that has been transmitted, and;

(b) underline each word and numeral as it is read back, and;

(c) tell the recipient the time at which the read back is confirmed as correct.

When the correct read back of an Authority is confirmed, the Train Controller must record details of the Authority on the Train Control Graph, and write the word “Complete” on their copy of the Authority.

5.1 Error During Read Back

If an error is detected during read back of an Authority, the Train Controller must:

(a) ask that the Authority be read back again, and;

(b) if it is confirmed that the Authority contains an error:

(i) tell the recipient about the error, and;

(ii) tell the recipient to write “NOT ISSUED” in large upper-case block letters diagonally across the face of each copy of the Authority, and;

(iii) reissue the Authority, using the same Authority ID number.

6. AUTHORITY IN EFFECT

An Authority becomes in effect at the time at which its correct read back is confirmed, and remains in effect until it is:

(a) fulfilled, or;

(b) cancelled.

Once in effect, the content of an Authority must not be altered.

All affected workers must sight and have an understanding of the Authority.

7. LOSS OF AUTHORITY

7.1 Authority for Rail Traffic Movement

If an Authority for rail traffic travel is lost whilst still in effect:

(a) the affected rail traffic must stop at the next Block Location in advance, and;

(b) the rail traffic crew must tell the Train Controller about the circumstances, and;

(c) the Train Controller must cancel the lost Authority, and issue a replacement Authority.

7.2 Authority for the occupancy of the track for work

If an Authority for the occupancy of the track for work is lost whilst in effect:

(a) the Possession Coordinator or Worksite Protection Officer must tell the Train Controller about the circumstances, and;

(b) the Train Controller must cancel the lost Authority, and issue a replacement Authority.

8. FULFILLING AN AUTHORITY

An Authority is fulfilled only after all instructions contained within it, have been carried out.

8.1 Rail Traffic Crew or Track Worker

When an Authority is fulfilled, the rail traffic crew or track worker must:

(a) write “FULFILLED”. the date, and time, in large upper case block letters diagonally across the face of each copy, and;

(b) advise the Train Controller that the Authority has been fulfilled.

8.2 Train Controller

When advised that an Authority is fulfilled, the Train Controller must

(a) write “FULFILLED”, the date, and time, in large upper case block letters diagonally across the face of their copy, and;

(b) record details of the fulfilled Authority on the Train Control Graph.

9. CANCELLING AN AUTHORITY

Once an Authority is in effect, it must be cancelled if it becomes:

(a) impossible to carry out all of the instructions contained within it, or;

(b) necessary to alter the instructions within it.

A replacement Authority must simultaneously:

(c) cancel the current Authority, and;

(d) contain the details of altered instructions.

An Authority must not be cancelled whilst rail traffic is in motion.

The location at which a current Authority is to be cancelled must be included in the cancelling Authority.

Example:

> *“TO (ID) is cancelled at WOOLSHED FLAT Main Line*
> *Now (details of new instructions)”*

If a Cancelling Authority is received by a worker other than that for who it is intended, the Train Controller must not issue any Authority which may conflict with the Authority being cancelled, before being assured that the Authority being cancelled has been marked as “CANCELLED”.

9.1 Train Controller

When an Authority is cancelled, the Train Controller must:

(a) tell the recipient to write “CANCELLED”, the date, and time, in large upper case block letters diagonally across the face of each copy, and;

(b) write “CANCELLED”, the date, and time, in large upper case block letters diagonally across the face of their own copy, and;

(c) record details of the cancelled and replacement Authorities on the Train Control Graph.

9.2 Rail Traffic Crew or Track Worker

When an Authority is cancelled, the rail traffic crew or track worker must:

(a) write “CANCELLED”. the date, and time, in large upper-case block letters diagonally across the face of each copy, and;

(b) advise the Train Controller that the Authority has been cancelled.

10. DISPOSAL OF AUTHORITIES

All copies of all Authorities, including those that have been issued, fulfilled, cancelled, or not issued, must, on completion of the shift, be deposited in the place provided for the purpose.

Authorities must be maintained for record and audit, according to the railway's procedures.

Authorities must not be disposed of by any other means.

11. SAMPLE FORMS

11.1 Train Order Form – Pichi Richi Railway

T140

Train Order

Pichi Richi Railway

Train Order No. ..... / /

Guard and Driver of Train No. ..... Engine No. .....

at ..... Station

n

Received at ..... Station ..... Hrs.

Repeated by ..... * Guard ..... Hrs
* Driver

Train Controller ..... * Station Master

*Train Order No ..... has been issued to Train No ..... to take the

..... at .....

*The other train shown in the text of this train order has not yet been issued with a train order containing advice of the above crossing or passing

* Delete those that do not apply

11.2 Train Order Form – SteamRanger Heritage Railway

Train Order

For issue of
- *Proceed Authority (PA)*
- *Conditional Proceed Authority (CPA)*
- *Work Authority (WA)*
- *Restraint Authority (RA)*

1 - Address Details :

Train Order *ID Number* **on** *Date DD/MM/YYY* **to crew of Train** *Train ID Number*

Loco / RC / TM *Lead Motive Power Unit ID* **Located at** *Location Train Order is in Effect*

2 - Authority Details :

3 - Issue Details :

Issued by *Train Controller's Name* **at** *Time* **on** *Date DD/MM/YYY*

4 - Read-Back Details :

Read Back by *Rail Safety Worker Name* **Correct Read Back confirmed at** *Time*

Form ARHS T-140 – Ver 0.3 – February 2020

11.3 Authority to Work or Travel on Track Form

Heritage Railways of South Australia

Authority to Work or Travel on Track

Local Possession Authority (LPA)
Track Occupancy Authority (TOA)
Track Work Authority (TWA)

1 Authority [Type / ID Number] on [DD] [MM] [YYYY] to [WPO / Possession Coordinator / Track Vehicle Operator at Location]

Name / contact details [WPO / Possession Coordinator / Track Vehicle Operator Name and Contact Details]

2 [Tick or Cross] A **LOCAL POSSESSION** will be established and the track will be **CLOSED TO NORMAL RAIL TRAFFIC** between:

[Start Location Track Kilometre ID] and [End Location Track Kilometre ID]

This portion of track will be managed by the **Possession Coordinator** until this Authority is FULFILLED

The management of this portion of the track **must be returned to the Train Controller** by [Time] [DD] [MM] [YYYY]

The details of advertising Network Notice number [Network Notice Number] are confirmed [YES or NO]

3 A Track Occupancy Authority (TOA) [Tick or Cross] A Track Work Authority (TWA) [Tick or Cross] is authorised as follows:

WORK

for occupation of the track by workers and equipment for **WORK** to be performed between:

[Exact Location of Start of Worksite] in the [Location to Location Section] Section and [Exact Location of End of Worksite] in the [Location to Location Section] Section

The track must be clear of workers and equipment by: [Time]

4 [Tick or Cross] A Track Occupancy Authority (TOA) is authorised for **TRAVEL** of [ID of Track Machine(s) or Road-Rail Vehicle(s)] between:

TRAVEL

[Exact Location of Limit of Authority Start] in the [Location to Location Section] Section and [Exact Location of Limit of Authority End] in the [Location to Location Section] Section

Report at Limit of Authority End Location by: [Time]

5 [Tick or Cross] Train number [Train Number] is ahead of you – Travel at RESTRICTED SPEED, prepared to stop.

6 [Tick or Cross] Pass Signal(s) [Signal ID] at STOP

7 [Details of other Authorities in Section or Additional Information]

8 Authorised by: [Name of Train Controller] at [Time]

Received by: [WPO / Possession Coordinator / Track Vehicle Operator] Read back correctly at [Time]

9 Authority extended until: [Time] [DD] [MM] [YYYY] Authorised by [Name of Train Controller]

Authority extended until: [Time] [DD] [MM] [YYYY] Authorised by [Name of Train Controller]

10 Authority suspended at: [Time] [DD] [MM] [YYYY] Authority re-instated at [Time] [DD] [MM] [YYYY]

Authority suspended at: [Time] [DD] [MM] [YYYY] Authority re-instated at [Time] [DD] [MM] [YYYY]

11 Change of WPO: [Time] [DD] [MM] [YYYY] Incoming WPO [Name / Signature of Incoming WPO]

12 **ALL tracks are CLEAR of workers and equipment.** **ALL tracks are SAFE for traffic**

FULFILLED by [Worksite Protection Officer's/Possession Coordinator's Name] at [Time] [DD] [MM] [YYYY]

Form WTR-001 – Ver: Draft 01 – July 12, 2017

11.4 Sample Marked-up Form - FULFILLED

Heritage Railways of South Australia

Authority to Work or Travel on Track

Local Possession Authority (LPA)
Track Occupancy Authority (TOA)
Track Work Authority (TWA)

1 Authority: TOA 21/17 on 12 07 2017 to Worksite Protection Officer at SALTIA
Name / contact details: Worksite Protection Officer Name – Ph 0400 000 000

2 [X] A **LOCAL POSSESSION** will be established and the track will be **CLOSED TO NORMAL RAIL TRAFFIC** between:
Start Location Track Kilometre ID and End Location Track Kilometre ID
This portion of track will be managed by the **Possession Coordinator** until this Authority is FULFILLED
The management of this portion of the track **must be returned to the Train Controller** by: Time DD MM YYYY
The details of advertising Network Notice number: Network Notice Number are confirmed: YES or NO

3 A Track Occupancy Authority (TOA) [X] A Track Work Authority (TWA) [X] authorised as follows:
WORK
for occupation of the track by workers and equipment for **WORK** to be performed between:
Exact Location of Start of Worksite in the Location to Location Section Section
and
Exact Location of End of Worksite in the Location to Location Section Section
The track must be clear of workers and equipment by: Time

4 [✓] A Track Occupancy Authority (TOA) is authorised for TRAVEL on NI34 / GEMCO / NTT 1 / NRT 1 between:
TRAVEL
SALTIA Main in the Location to Location Section Section
and
QUORN End TOW in the Location to Location Section Section
Report at Limit of Authority End Location by: 1615

5 [X] Train number: Train Number is ahead of you – Travel at RESTRICTED SPEED, prepared to stop.

6 [✓] Pass Signal(s): 3 at STOP

7 [X] Details of other Authorities, Section or Additional Information

8 Authorised by: Train Controller Name at 1432
Received by: Worksite Protection Officer Name Read back correctly at 1434

9 Authority extended until: Time DD MM YYYY Authorised by: Name of Train Controller
Authority extended until: Time DD MM YYYY Authorised by: Name of Train Controller

10 Authority suspended at: Time DD MM YYYY Authority re-instated at: Time DD MM YYYY
Authority suspended at: Time DD MM YYYY Authority re-instated at: Time DD MM YYYY

11 Change of WPO: Time DD MM YYYY Incoming WPO: Name / Signature of Incoming WPO

12 ALL tracks are CLEAR of workers and equipment. ALL tracks are SAFE for traffic
FULFILLED by: Worksite Protection Officer Name at 1602 12 07 2017

Form WTR-001 – Ver: Draft 01 – July 12, 2017

FULFILLED
Date - Time

11.5 Sample Marked-up Form - CANCELLED

Train Order

For issue of
- *Proceed Authority (PA)*
- *Conditional Proceed Authority (CPA)*
- *Work Authority (WA)*
- *Restraint Authority (RA)*

1 - Address Details :

Train Order PA 1 on 1 / 7 / 2020 to crew of Train 41701

Loco / RC / TM 958 Located at MT BARKER

2 - Authority Details :

Proceed from MT BARKER Main Line

To VICTOR HARBOUR Yard Limits

Report through CURRENCY CREEK and GOOLWA

CANCELLED

Date - Time

3 - Issue Details :

Issued by D Controller at 0932 on 1 / 7 / 2020

4 - Read-Back Details :

Read Back by A Guard Correct Read Back confirmed at 0935

Form ARHS T-140 – Ver 0.3 – February 2020

11.6 Sample Marked-up Form – NOT ISSUED

T140

Train Order

Pichi Richi Railway

Train Order No. ..... / / .....

Guard and Driver of Train No. ..... Engine No. .....

at ..... Station

NOT ISSUED

Received at ..... Station ..... Hrs.

Repeated by ..... * Guard ..... Hrs
* Driver

Train Controller ..... * Station Master

*Train Order No ..... has been issued to Train No ..... to take the

..... at .....

*The other train shown in the text of this train order has not yet been issued with a train order containing advice of the above crossing or passing

* Delete those that do not apply

END OF SECTION 11

Heritage Railways of South Australia

Railway Safeworking Rules

Section 12

Train Order Working

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with the Train Order Working system of safeworking used on Heritage Railways in South Australia.

2. GENERAL

Train Order Working is a system of safeworking in which Authorities for rail traffic movement and other occupation of the track are issued by the Train Controller, and provided to Competent Workers in written form.

The purpose of the Train Order Working system is to prevent, under normal operating conditions, more than one rail traffic movement being in a single line section at the same time.

The Train Controller controls the movement of all rail traffic and other track occupancy.

The rail traffic crew must be issued with an Authority before entering a section.

Authorities for rail traffic must be recorded in writing on a Train Order form.

In the Train Order Working system, an Authority for rail traffic movement may be issued to a:

(a) competent worker then delivered to a rail traffic crew, or;

(b) rail traffic crew, directly, or via a communication device.

Authorities for movement of on-track maintenance vehicles are recorded in writing on a Train Order form, or on a Track Work form.

Authorities for the occupancy of the track for work, are recorded in writing on a Track Work form.

NOTE	*Refer to Section 11 - Written Authorities.*

NOTE	*Refer to Section 18 - Track Vehicle Movement.*

3. OCCUPANCY PRINCIPLES FOR TRAIN ORDER WORKING

The occupation of the track under Train Order Working must be governed by occupancy principles below.

These occupancy principles for Train Order Working are the equivalent of those contained in Table G6, in Australian Standard AS4292.5.

Occupancy Authority Planning Table

*Authority **already in effect** in Section*		*Authority **proposed** for the Section*						
		Train Order Form				*Work or Travel on Track Form*		
		PA	***CPA***	***WA***	***RA***	***TOA***	***TWA***	***LP***
Train Order Form	***PA***	*0*	*1*	*0*	*0*	*2*	*4*	*0*
	CPA	*1*	*0*	*0*	*0*	*0*	*4*	*0*
	WA	*0*	*1*	*3*	*3*	*0*	*4*	*0*
	RA	*0*	*0*	*3*	*3*	*2*	*4*	*0*
Work or Travel on Track Form	***TOA***	*0*	*0*	*0*	*3*	*3*	*6*	*0*
	TWA	*4*	*4*	*4*	*4*	*5*	*3*	*0*
	LP	*0*	*0*	*0*	*0*	*0*	*0*	*0*

PA=Proceed Authority *CPA=Conditional Proceed Authority* *WA=Work Authority*

RA = Restraint Authority

LP=Local Possession *TOA=Track Occupancy Authority* *TWA=Track Work Authority*

In the table above:

(0) The proposed Authority is not permitted whilst the existing Authority is in effect.

(1) The proposed Authority is permitted – The Train Order must include crossing or passing instructions for the other train.

(2) The proposed Authority is permitted – The train must have passed the proposed worksite or the point at which a track vehicle journey will commence and must not be returning.

(3) The proposed Authority is permitted – The limits of each Authority must not overlap.

(4) The proposed Authority is permitted – The Worksite Protection Officer must be told about approaching rail traffic – Rail Traffic crews must be told about the TWA.

(5) The proposed Authority is permitted – If the proposed TOA is for a worksite, condition (3) applies. If the proposed TOA is for track vehicle travel, condition (4) applies.

(6) The proposed Authority is permitted – If the existing TOA is for a worksite, condition (3) applies. If the existing TOA is for track vehicle travel, condition (4) applies.

4. LIMITS OF TRAIN ORDER WORKING TERRITORY

4.1 Start and End Limits

The start and end of Train Order Working territory is identified by signs.

The limits of Block Locations en-route are designated by signs.

NOTE	*Refer to Section 10 – Rail Traffic Markers, Indicators and Signs.*

4.2 Block Location Limits – Crossing Locations

Crossing Location Limits are designated by:

(a) LOCATION AHEAD signs, located between 1000 m and 1200 m from the YARD LIMIT sign, and;

(b) YARD LIMIT signs located between 100 m and 250 m before the first points, or;

(c) Fixed Signals, used in lieu of, or in combination with signs.

4.3 Block Location Limits – Control Point Locations

Control Point Limits are designated by:

(a) LOCATION AHEAD signs, located between 1000m and 1200m from the Control Point, and;

(b) CONTROL POINT signs, located at the Control Point.

5. MANAGEMENT OF TRAIN ORDER WORKING

The Train Controller must manage all safeworking decisions.

5.1 Train Control Graph

The primary tool for operational safety is a Train Control graph, on which the Train Controller must plot:

(a) planned, authorised and actual rail traffic occupancies, and;

(b) planned, authorised and actual work on track occupancies, and;

(c) events or conditions that may affect safety.

5.2 Train Control Arrangements

Management of Train Order Working is performed by a Train Controller.

During days of operation the Train Controller may be:

(a) located in a designated office on the railway, or;

(b) located somewhere other than on the railway, or;

(c) the Guard of the sole rail traffic movement operating under Guard in Charge Working.

A Network Notice must publish advice of Train Control arrangements, including contact information, and if necessary, the location of the Train Controller.

5.3 Management - Train Controller

The Train Controller must:

(a) efficiently manage Network activities, and;

(b) formulate, authorise and issue Authorities, and;

(c) record occupancies, and;

(d) refer to the Train Control graph and existing Authorities to avoid conflicts when formulating new Authorities.

5.4 Management - Guard in Charge

PRR ONLY

NOTE	*Guard in Charge Working is used only on the Pichi Richi Railway*

Under Guard in Charge Working, the responsibilities and functions of the Train Controller are performed by the Guard, under restricted conditions.

5.4.1 Conditions for Use of Guard-In-Charge Working

PRR ONLY

Guard in Charge Working must only be used if, during the time that Guard in Charge Working is in effect:

(a) only a single train movement occupies the track within Train Order Territory Limits, or;

(b) the single train movement occupying the track within Train Order Territory Limits needs to be followed by a track vehicle performing a Fire Patrol, and;

(c) it is not intended for more than one rail traffic movement to occupy the track within Train Order Territory Limits, and;

(d) no maintenance workers are required to occupy the track within Train Order Working Limits.

5.4.2 Authorities to be Issued by the Guard In Charge

PRR ONLY

The Guard in Charge must only formulate, authorise and issue:

(a) Authorities for the travel of the train of which the Guard is in charge, and

(b) Track Occupancy Authorities for the travel of a track vehicle following that train for the purpose of performing a Fire Patrol.

Authorities issued under Guard In Charge Working must commence with the words “Guard In Charge Working is in effect”.

6. AUTHORITIES USED IN TRAIN ORDER WORKING

Rail traffic or track workers may enter and occupy a Section only if in the possession of a correctly compiled Authority.

When required by the Train Controller, rail traffic crews or track workers must confirm their understanding of the limits of their Authority.

Unless specifically stated, an Authority does not authorise rail traffic to pass signals at STOP.

6.1 Authority Use

6.1.1 Train Movement

Trains must be authorised to occupy or travel in a Section within Train Order Working territory by:

(a) a Proceed Authority, or;

(b) a Work Authority, or;

(c) a Restraint Authority.

Authorities for train travel within Train Order Working territory must be issued using a Train Order form.

If an Authority advises that a track vehicle is closely following a train, the train crew must, so far as reasonably practicable, show the Authority to the track vehicle operator, and confirm their understanding of it.

WARNING!	*The sighting by a Track Vehicle Operator, of a Proceed Authority issued to a train, does NOT provide the authority for a Track Vehicle Movement to follow that train.*

A Track Vehicle following a train must be authorised to travel by the issue of a written Track Occupancy Authority.

NOTE	*Refer to Section 18 – Track Vehicle Travel*

6.1.2 Track Worker Occupancy

Track Workers occupying the track to perform track work within Train Order Working territory limits must be in possession of:

(a) a Local Possession Authority, or;

(b) a Track Occupancy Authority, or;

(c) a Track Work Authority.

Authorities for occupancy of the track by workers within Train Order Working territory limits, must be issued and recorded using a Work on Track form.

6.1.3 Track Vehicle Travel

Track Vehicle travel within Train Order Working territory limits must be authorised by a Track Occupancy Authority.

The Authorities for track vehicle travel within Train Order Territory limits must be issued and recorded using a Work on Track form.

NOTE	*Refer to Section 17 - Work on Track and Section 18 – Track Vehicle Travel*

6.2 Proceed Authority

A Proceed Authority is an Authority issued to a train for exclusive occupancy of a Section, authorising it to proceed in the forward direction, through one or more single line sections.

The Train Controller must not issue a Proceed Authority until it is known that the track is clear to the Block Location in advance.

A Proceed Authority must be issued to:

(a) the Driver of the leading motive power unit on a train, and;

(b) the Guard of a train.

A copy of the Proceed Authority must be provided to the Driver of any additional motive power unit on a train.

6.2.1 Conditional Proceed Authority

A Proceed Authority may be issued, which is conditional upon the fulfilment of a previously-issued Authority, before becoming in effect.

WARNING!	*A Conditional Proceed Authority must include reference to completing the instructions contained in a previously issued Authority.*

Examples:

Fulfil (TO ID) then (subsequent instructions)

After crossing (Rail Traffic ID) proceed to (location)

6.2.2 Multiple-Journey Proceed Authority

A Proceed Authority may be issued to authorise multiple journeys of a single rail traffic movement over a portion of track.

WARNING!	*If a Proceed Authority is issued to authorise multiple journeys, no other track occupancy is permitted within the Limits of Authority for that Proceed Authority.*

Example:

"Work Train Numbers 1551, 1555, and 1557 RC 428
from GOOLWA DEPOT Main Line to VICTOR HARBOUR Yard Limits
Work Train Numbers 1552, 1556, and 1558 RC 334
from VICTOR HARBOUR Yard Limits to GOOLWA DEPOT Main Line"

Members of a Rail Traffic Crew must verify with each other, the limits of the Authority prior to the departure from the Block Location from which each train journey originates.

6.3 Work Authority

A Work Authority is an Authority issued to a to authorise it to proceed in both directions through one or more single line sections.

A Work Authority for train travel must be issued to:

(a) the Driver of the leading motive power unit on a train, and;

(b) the Guard of the train.

A copy of the Work Authority must be provided to the Driver of any additional motive power unit on a train.

A Work Authority may be issued to rail traffic, to authorise it proceed into an obstructed section to assist disabled rail traffic, which has been restrained by a Restraint Authority.

NOTE	*Refer to Section 13 - Disabled or Divided Rail Traffic.*

A Work Authority must include details of the work to be performed, and if necessary, instructions about the time by which the work is to be completed.

Example:

"Work as required between GOOLWA DEPOT Main Line and KP 108.500
Return to GOOLWA DEPOT Main Line by (time)"

"Proceed from WOOLSHED FLAT Main Line to QUORN Yard Limit
Work as required between MP 241.0 and MP 240.0"

6.4 Restraint Authority

A Restraint Authority is issued by the Train Controller to direct rail traffic to remain at a specific location.

NOTE	*A Restraint Authority is normally used to ensure that a disabled train does not move from the location until assistance has arrived.*

6.4.1 Issue of Restraint Authority

A Restraint Authority must be issued to:

(a) the Driver of the leading motive power unit of the train to be restrained, and;

(b) the Guard of the train to be restrained.

A copy of the Restraint Authority must be provided to the Driver of any additional motive power unit on the train to be restrained.

6.4.2 Intent of Restraint Authority

The Restraint Authority must:

(a) cancel any Authority currently in effect, and;

(b) direct that the train to be restrained remains at its current location, and;

(c) if required, advise the direction from which assistance will approach, and;

(d) if required, advise details of the location to which the disabled train will be assisted.

Examples:

> *"TO (ID) is CANCELLED at MP 238.2*
> *Remain at MP 238.2 until the arrival of (Rail Traffic ID)*
> *Place protection towards QUORN*
> *(Rail Traffic ID) will provide assistance to SUMMIT Main Line."*

> *"TO (ID) is CANCELLED at KP 68.450*
> *Remain at KP 68.450 until the arrival of (Rail Traffic ID)*
> *Place protection towards BUGLE RANGES*
> *(Rail Traffic ID) will provide assistance to MT BARKER Main Line."*

6.4.3 Rail Traffic Crew Response

The rail traffic crew must:

(a) not allow a train to depart from the specified location until:

- assistance arrives, or;
- the Restraint Authority is cancelled, and;

(b) apply protection as directed.

6.5 Information on Train Order Form

An Authority delivered via a Train Order form must include:

(a) its unique identification number, and;

(b) the rail traffic movement for which the Authority is intended, and;

(c) the leading motive power unit identification, and;

(d) the date and location of its issue, and;

(e) the start point for the Authority, and;

(f) the exact end point for the Authority, and;

(g) details of any other rail traffic movements to be crossed or passed, and;

(h) information about any applicable Network Notices, and;

(i) conditions affecting travel, including unadvertised Temporary Speed Restrictions, and;

(j) the location of any Track Work Authority occupancies, and;

(k) details of track vehicle movements following in the same Section and;

(l) changes to the attended or unattended status of a Block Location, and;

(m) the name of the issuing Train Controller, and;

(n) the name of the recipient, and;

(o) time of issue and read back, and;

(p) details of Authorities issued to other rail traffic movements to be crossed or passed.

6.6 Information on Track Work Form

An Authority delivered via a Track Work Order form must include:

(a) its unique identification number, and;

(b) the type of Authority being issued, and;

(c) the purpose for which the Authority is issued, and;

(d) the exact start point for the Authority, and;

(e) the exact end point for the Authority, and;

(f) information about any applicable Network Notices, and;

(g) information about any anticipated rail traffic, and;

(h) the date and time at which the track is required to be cleared, and;

(i) the name of the issuing Train Controller, and;

(j) the name of the recipient, and;

(k) time of issue and read back, and;

(l) if issued for track vehicle travel;

  (i) the exact start point for the track vehicle travel, and;

  (ii) the exact end point for the track vehicle travel, and;

  (iii) conditions affecting travel, including Temporary Speed Restrictions that have not been advertised, and;

  (iv) the location of any Track Work Authority occupancies, and;

  (v) details of any other rail traffic movements, and;

  (vi) details of preceding rail traffic, if travelling as a fire patrol, and;

  (vii) changes to the attended or unattended status of a Block Location.

6.7 Competent Workers Receiving Authorities

Competent Workers may receive Authorities and instructions and deliver them to rail traffic crews.

Competent Workers at attended locations must keep copies of Authorities received.

If a rail traffic crew does not receive an Authority directly from the Train Controller, the rail traffic crew must verify the Authority before departure.

6.8 Challenging an Authority

Competent Workers must challenge an Authority if they believe or become aware that the Authority is incorrect.

7. LIMITS OF AUTHORITY

The Limit of Authority is the limits between which an Authority is in effect.

An Authority must have a start and end point.

The Limit of Authority must be designated within a Train Order or Work on Track form, by specifying the locations between which the occupancy of the track is authorised.

Where more than one track exists at a location, the track to be occupied by the rail traffic movement must be specified.

The Limits of Authority must not extend through an Attended Location.

7.1 Limit of Authority Start Point

A Limit of Authority start point must be designated.

(a) If a Train Order Working Territory end location is designated as the start location of an Authority, the Limit of Authority starts from the START OF TRAIN ORDER WORKING sign.

Examples:

"PROCEED from QUORN Yard Limit to SUMMIT Main Line"

"Proceed from VICTOR HARBOUR Yard Limit to STRATHALBYN Main Line"

(b) If a specific sign is designated as the start location of a Proceed Authority, the Limit of Authority starts from the specified sign.

Examples:

"Proceed from SUMMIT Down End YLS to QUORN Yard Limit"

"Proceed from MIDDLETON Down End YLS to GOOLWA Main Line"

(c) If a specific track at a location is designated as the start location of a Proceed Authority, the Limit of Authority must start from the specified track.

Examples:

"Proceed from MIDDLETON Crossing Loop to VICTOR HARBOUR Yard Limit"

"Proceed from SUMMIT Main Line to QUORN Yard Limit"

7.2 Limit of Authority End Point

A Limit of Authority end point must be designated as follows:

(a) If a Train Order Working Territory end location is designated as the end location of a Proceed Authority, the Limit of Authority must extend to the END OF TRAIN ORDER WORKING sign or Home Signal, marking the Yard Limits at that Location

Examples:

"Proceed from PT AUGUSTA Main Line to QUORN Yard Limit"

"Proceed from MIDDLETON Crossing Loop to VICTOR HARBOUR Yard Limit"

(b) If a specific sign is designated as the end location of a Proceed Authority, the Limit of Authority must extend to the specified sign.

Examples:

"Proceed from DEVIL'S PEAK to SUMMIT Down End YLS"

"Proceed from VICTOR HARBOUR Yard Limit to MIDDLETON Down End YLS"

(c) If a specific track at a location is designated as the end location of a Proceed Authority, the Limit of Authority extends to the clearance point, at the departure end of the specified track.

Examples:

"Proceed from SUMMIT Main Line to WOOLSHED FLAT Goods Loop"

"Proceed from VICTOR HARBOUR Yard Limit to GOOLWA Main Line"

7.3 Entry to Location Yard Limits

The authority for entry to YARD LIMITS is determined by its location, the working in place, and the circumstances.

The entry to YARD LIMITS is authorised by:

(a) the competent Worker in charge of an attended Location, or;

(b) written instructions within the Authority, or;

(c) the clearance of a fixed signal, or;

(d) the direct verbal instructions of the Train Controller.

Example:

"Proceed from GOOLWA Main Line to VICTOR HARBOUR Yard Limit
Pass Home Signal 1 at STOP.
Enter Yard Limits and shunt as required.
Note – VICTOR HARBOUR is unattended"

If a normally unattended location is attended, an Authority must include advice of this.

Example:

"Proceed from PT AUGUSTA Main Line to WOOLSHED FLAT Down End YLS
Note – WOOLSHED FLAT is attended."

8. AUTHORITY TO SHUNT

If it is necessary for trains to shunt at an attended Block Location, this must be authorised by the by the Competent Worker in charge of the Block Location.

If it is necessary for trains to shunt at an unattended Block Location, this must be authorised by the Train Controller.

The authority to shunt at a Block Location must be included within the text of the Authority issued for the train to proceed.

Examples:

> *"Proceed from QUORN Yard Limit to PT AUGUSTA Main Line*
> *Shunt as required at WOOLSHED FLAT and PT AUGUSTA."*

> *"Proceed from GOOLWA Main Line to MT BARKER Main Line*
> *Shunt as required at GOOLWA DEPOT"*

8.1 Change of Motive Power

If the leading motive power unit is to be replaced, the rail traffic crew or another competent worker must advise the Train Controller.

The Train Controller must cancel all existing Authorities that contain references to the replaced motive power unit and issue new Authorities showing the new motive power unit.

8.2 Consist Change Following Shunt

When a train consist is changed as a result of a shunt, the rail traffic crew must report the details of the changed consist to the Train Controller.

8.3 Limits of Shunt

When shunting is authorised at a Block Location:

(a) all tracks at the Block Location may be occupied, as required; and;

(b) the shunting train must not pass the Yard Limit Signs at that Block Location

(c) if an opposing train is to be crossed the opposing train crew must be informed:

  (i) that a shunt has been authorised at the crossing Block Location, and;

  (ii) any conditions under which their train is to enter the Block Location.

Example:

> *"Proceed from QUORN Yard Limit to WOOLSHED FLAT Goods Loop*
> *Cross (Rail Traffic ID)*
> *Note – (Rail Traffic ID) is authorised to shunt as required at WOOLSHED FLAT*
> *Stop at WOOLSHED FLAT Up End YLS until admitted."*

If the train which is to shunt is already authorised to occupy the Section beyond a Block Location where shunting has been authorised, the shunting train may proceed as far as necessary into the Section ahead.

8.4 Entry into a Block Location from an Adjacent Siding or Depot

The Train Controller must authorise a rail traffic movement to exit a siding or depot, and enter the adjacent Yard Limits of a Block Location within Train Order Working limits.

NOTE	*A Depot or siding that is adjacent to a Block Location within TOW Territory may be defined by signs as being outside of TOW Territory.*

8.4.1 Block Location is Unoccupied

Before the rail traffic exits an adjacent siding or depot and enters the Block Location Yard Limits:

(a) the rail traffic crew must seek the authority of the Train Controller to exit the adjacent siding or depot, and;

(b) the Train Controller must confirm that the track within Yard Limits at the Block Location is unoccupied, and will remain unoccupied, and;

(c) the Train Controller may give verbal authority for the movement to enter the Yard Limits of the Block Location.

8.4.2 Block Location is Already Occupied

If the Block Location is occupied, or occupation has been already authorised, the Train Controller must:

(a) tell the train crew or track workers, already within the location's Yard Limits about the proposed rail traffic entry from the adjacent siding or depot, and;

(b) issue a written Authority to the entering rail traffic crew, authorising their entry into the location's Yard Limits.

The written Authority must include details of:

(i) the other occupation, and;

(iii) the tracks to which entry is not permitted.

Example:

"Shunt as required in MT BARKER Yard Limits
Note – TOA in effect on MT BARKER Crossing Loop
Do not enter MT BARKER Crossing Loop."

8.4.3 Block Location Attended

If the Block Location adjacent to the siding or depot is attended, the entry of rail traffic into the location's Yard Limits must be managed and coordinated by the Worker in charge of the Block Location.

9. REPORTING RAIL TRAFFIC PROGRESS

Rail traffic crews must record the arrival and departure times at all Block Locations, and report progress as required by the Train Controller.

Any loss of time excess of that stipulated by the railway, must be reported to the Train Controller.

Arrival at a Block Location must only be reported after the rail traffic has arrived within Yard Limits, at the specified Block Location, and is complete.

Rail Traffic that is unable to fit between Yard Limit signs at a Block Location, or which is standing at a Control Point sign, must not report arrival in clear, as it still occupies the Section to the rear.

Departure from a Block Location must only be reported after the rail traffic has cleared the departure-end YARD LIMIT sign or CONTROL POINT sign at the Block Location, and is complete.

If an Authority contains the instruction to "report through" a Block Location, progress must be reported only after the rearmost vehicle has cleared the departure end YARD LIMIT sign or CONTROL POINT sign at the specified Block Location, and is complete.

Examples:

> *"Proceed from QUORN Yard Limit to WOOLSHED FLAT Main Line*
> *Report through SUMMIT and DEVILS PEAK."*

> *"Proceed from STRATHALBYN Main Line to MT BARKER Main Line*
> *Report through GEMMELS and PHILCOX HILL"*

If the Train Controller cannot be contacted immediately, the rail traffic may continue, and provide a report at the earliest opportunity.

If an Authority contains the instruction to "stop and report at" a Block Location, progress must be reported only after the rail traffic has arrived complete and stopped within Yard Limits or before passing the CONTROL POINT sign at the specified Block Location.

Example:

> *"Proceed from GOOLWA Main Line to VICTOR HARBOUR Yard Limit*
> *Stop and report at MIDDLETON"*

> *"Proceed from QUORN Yard Limit to WOOLSHED FLAT Main Line*
> *Stop and report at DEVILS PEAK"*

If the Train Controller cannot be contacted, the rail traffic must remain at the report location until the report can be made.

9.1 Reporting at a Crossing or Passing Location

Rail Traffic Crews must report to the Train Controller when:

(a) they arrive at a Block Location at which a cross is to occur, and;

(b) they arrive at a Block Location at which the Rail Traffic is to be passed, and;

(c) if already authorised to proceed beyond a Block Location at which a cross is to occur, prior to departure from that Block Location.

10. CROSS OR PASS OF RAIL TRAFFIC

If a cross or pass movement is to occur, the Authority must include written instructions about the cross or pass movements.

Rail Traffic Crews must comply with crossing or passing instructions included within an Authority.

Rail traffic crews or the Competent Worker in charge of an Attended Block Location must set points as required.

Rail traffic crews or the Competent Worker in charge of an Attended Block Location must admit the rail traffic into the cross or pass location.

An Authority must not authorise cross or pass movements at multiple Block Locations.

An Authority may authorise multiple cross or pass movements at a single Block Location.

An Authority must not authorise a Rail Traffic movement to undertake a crossing movement at a single Block Location, and then proceed beyond that Block Location if that Rail Traffic movement is to occupy the Main Line at that Block Location.

An Authority may authorise a Rail Traffic movement to undertake a crossing movement at a single Block Location, and then proceed beyond that Block Location if:

(a) that Rail Traffic movement is directed to occupy a track other than the Main Line at the Block Location at which the cross is to take place, and;

(b) an instruction to report to the Train Controller before departure from that Block Location is included within the Authority.

Examples:

"Proceed from QUORN Yard Limit to SUMMIT Goods Siding
Allow (Rail Traffic ID) to pass.
Cross (Rail Traffic ID) also Cross (Rail Traffic ID)"

"Proceed from PT AUGUSTA Main Line to WOOLSHED FLAT Goods Siding
Cross (Rail Traffic ID)"

"Proceed from GOOLWA Main Line to MIDDLETON Crossing Loop
Cross (Rail Traffic ID)
After crossing (Rail Traffic ID) proceed to VICTOR HARBOUR Yard Limits
Report before departure from MIDDLETON Crossing Loop"

10.1 Details about other rail traffic movement

An Authority containing the instructions for a cross or pass movement must contain details of the rail traffic movement to be crossed or passed, including:

(a) the rail traffic identification number, and;

(b) the leading motive power unit identification.

NOTE	*The Authority may include details of the Authority held by the other rail traffic movement, or advice that an Authority has not yet been issued to it.*

Example:

"Proceed from QUORN Yard Limit to SUMMIT Main Line
Cross (Rail Traffic A)
(Rail Traffic A) has been issued with (TO ID) for SUMMIT Siding"

10.2 Attended Block Locations

Where a cross or pass is to be conducted at an Attended Block Location:

(a) advice of the line to be taken must not be included in the Authority, and;

(b) the Competent Worker in charge of the Attended Block Location must determine the tracks to be taken by each rail traffic movement.

Example:

"Proceed from MIDDLETON Main Line to VICTOR HARBOUR Yard Limit
Cross (Rail Traffic ID)"

The Competent Worker in charge of the Attended Block Location must perform the tasks otherwise performed by rail traffic crews, or delegate a competent worker to perform these tasks.

10.3 Crossing at Terminal Block Locations

If a departing train is to cross an arriving train at a terminal Block Location, and then proceed, advice of the cross must be included in the Authority, before the instruction to proceed.

Example:

"Remain at VICTOR HARBOUR and Cross (Rail Traffic ID)
After crossing (Rail Traffic ID)
Proceed from VICTOR HARBOUR Yard Limit to MIDDLETON Main Line "

"Remain on PT AUGUSTA Main Line and Cross (Rail Traffic ID)
After crossing (Rail Traffic ID)
Proceed from PT AUGUSTA Main Line to WOOLSHED FLAT Main Line"

10.4 Unattended Block Locations - Crossing – Voice Communication Available

NOTE	*Voice communication between rail traffic crews may conducted by radio or telephone communication.*

If voice communication between rail traffic crews is available, rail traffic crews must:

(a) comply with instructions provided within the Authority, and;

(b) communicate with the rail traffic to be crossed, and;

(c) agree which rail traffic movement is to enter the location first.

10.4.1 Rail Traffic Crew – First movement to enter Block Location

The crew of the rail traffic movement that is to enter first must:

(a) set the route as required and enter the location on the specified track, and;

(b) report arrival to the Train Controller, and;

(c) if required, set the route for the opposing rail traffic, and;

(d) tell the opposing rail traffic crew about any conditions of entry into the Block Location and;

(e) admit the opposing rail traffic to the Block Location.

10.4.2 Rail Traffic Crew – Second movement to enter Block Location

The crew of the rail traffic movement that is to enter second must:

(a) not pass the arrival-end YARD LIMIT Sign until admitted by the crew of the opposing rail traffic movement, and;

(b) when admitted, enter the location on the specified track, and;

(c) ensure that the rail traffic has arrived complete, and;

(d) report arrival to the Train Controller.

10.5 Unattended Block Locations - Crossing - No Voice Communication Available

If voice communication is not available between rail traffic crews, the rail traffic to occupy the main line must:

(a) stop at the arrival end YARD LIMIT sign, and;

(b) wait to be admitted by the opposing rail traffic crew.

10.5.1 Crew of movement to occupy Crossing Loop or Siding

The crew of the rail traffic to occupy the crossing loop or siding must:

(a) enter the location first, and;

(b) admit the opposing rail traffic to the main line, and;

(c) obtain an Authority to proceed, and;

(d) after the crossing movement is completed, set points for departure.

10.5.2 Crew of movement to occupy the Main Line

The crew of the rail traffic movement that is to occupy the Main Line must:

(a) not pass the arrival-end YARD LIMIT Sign until admitted by the crew of the opposing rail traffic movement, and;

(b) when admitted, enter the location on the Main Line, and;

(c) when the rail traffic has arrived complete, report arrival to the Train Controller

10.5.3 Passing – First Movement to Arrive

The crew of the rail traffic that is to arrive first, and then be passed must:

(a) enter the location on the specified track at the pass location and;

(b) draw clear of the points at the rear of the train, to allow entry of the passing train, and;

(c) report arrival to the Train Controller when the rail traffic has arrived complete and;

(d) set the route for the passing rail traffic, and;

(e) tell the passing rail traffic crew about any conditions of entry into the Block Location and;

(f) admit the passing rail traffic into the Block Location.

10.5.4 Passing – Second Movement to Arrive

If communication between rail traffic crews is available, the following rail traffic crew must:

(a) on approach to the LOCATION AHEAD sign at the pass location communicate with the rail traffic crew of the rail traffic to be passed, and;

(b) confirm the instructions within the Authorities held by each rail traffic crew, and;

(c) advise of their location, and;

(d) stop at the arrival-end YARD LIMIT sign unless admitted into the location, and;

(e) when admitted, enter the Block Location on the specified track, and;

(f) report arrival, complete, to the Train Controller.

10.6 Departure From Cross or Pass Location

Rail traffic must not depart a location at which a cross or pass has been arranged until:

(a) each rail traffic movement has arrived complete, and;

(b) an Authority has been issued for rail traffic to depart, and;

(c) the points have been set for departure.

10.7 Change of Crossing Location

If it is necessary to change a crossing location specified on existing Authorities, the Train Controller must:

(a) first, cancel the Authority held by the rail traffic whose journey is being shortened and issue a new Authority with altered crossing instructions, and;

(b) then cancel the Authority held by the rail traffic whose journey is being extended and issue a new Authority with altered crossing instructions.

END OF SECTION 12

Heritage Railways of South Australia

Railway Safeworking Rules

Section 13

Disabled or Divided Trains

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with the management and recovery of disabled or divided trains on Heritage Railways in South Australia.

2. GENERAL

A train may become disabled due to causes such as:

(a) a motive power unit fault or failure, or;

(b) a derailment, or;

(c) an obstruction of the line.

NOTE	*Trains disabled by derailment must be secured and the site protected to preserve evidence for an investigation of the causes.*

If a train becomes disabled, it must be recovered, and the Section cleared as efficiently and safely as possible.

Disabled trains may become an obstruction on one or more lines.

A disabled train may need to be:

(a) divided and recovered in portions, or;

(b) recovered with the assistance of other rail traffic, or;

(c) secured, protected, and recovered by specialised personnel.

3. INITIAL RESPONSE

3.1 Train Crew

The crew of a disabled or divided train must:

(a) first, ensure their own safety, and;

(b) determine if any adjoining line is obstructed, and if necessary, protect any obstructed adjacent line, and;

NOTE	*Refer to Section 16 – Protection of Obstructions.*

(c) if necessary, attend to the safety and welfare of others, and;

(d) determine and record the exact location of the disabled train, and;

(e) tell the Train Controller the exact location and circumstances, and;

(f) liaise with the Train Controller to determine a recovery plan, and;

(g) if necessary, apply protection on the line on which it is standing.

3.2 Train Controller

The Train Controller must:

(a) liaise with the crew of the disabled train to determine a recovery plan, and;

(b) if necessary, liaise with the ARTC Network Controller.

3.3 Obstruction of Level Crossing

If the disabled or divided train is obstructing a level crossing:

(a) the crew of the disabled train must:

- tell the Train Controller, and;
- protect the level crossing from approaching road traffic;

(b) if necessary the Train Controller must liaise with road traffic management authorities about the need to provide road traffic management personnel.

3.4 Obstruction of Adjacent Lines

3.4.1 ARTC Line

If an adjacent ARTC line is obstructed by a disabled train, the train crew must:

(a) immediately evacuate any passengers to the side of the rail corridor away from the adjacent line, and

(b) tell the ARTC Network Controller that the ARTC line is obstructed, and;

(c) protect the adjacent ARTC line against approaching rail traffic, and;

(d) tell the Heritage Railway Train Controller that the ARTC Main Line is obstructed, and;

(e) protect the obstruction, on the Heritage Railway line.

3.4.2 Heritage Railway Line

If an obstructed adjacent line is solely part of the Heritage Network, the train crew must:

(a) tell the Train Controller that an adjacent line is obstructed, and;

(b) assess the risks of evacuating any passengers, and;

(c) protect the adjacent line against any approaching rail traffic, and;

(d) liaise with the Train Controller to determine a recovery plan.

4. DIVIDED TRAIN

Motive power unit faults or other causes may require the recovery of a train from a section in two or more portions.

4.1 Unassisted Recovery

It may be possible for the train's own motive power to recover the consist to a block location in advance, as stipulated by the Train Controller, by dividing the consist into two or more portions.

The rail traffic crew must attend to the requirements of clause 3.1 above, then:

(a) secure the portion of the train that is to remain in the Section, and;

(b) separate and draw forward, the portion of the train that is to be taken to the stipulated block location in advance, and;

(c) place protection at least 500 metres in advance of the remaining portion, and;

(d) haul the forward portion to the stipulated block location in advance.

NOTE	*The remaining portion of the train consist must be treated as an obstruction, and protected accordingly.*

4.1.1 Arrival at the block location in advance

On arrival at the block location in advance, the train crew must:

(a) report arrival of the front portion of the train, to the Train Controller, and;

(b) arrange for the existing Proceed Authority to be cancelled, and a Work Authority to be issued, and;

(c) if necessary, liaise with any opposing rail traffic crews, as set out below, and;

(d) detach and secure the recovered forward portion of the train consist, and;

(e) tell the Train Controller when ready to set back to recover the remaining portion.

4.1.2 Track Work Authority worksite in Section

If a Track Work Authority worksite is in place between the divided train, and the block location to which the rail traffic is to be recovered, the rail traffic crew must tell the Worksite Protection Officer:

(a) that the movement is only one portion of a divided train consist, and;

(b) that a movement from the opposing direction will occur, to recover the remaining portion of the divided train consist.

4.1.3 Crossing Movement at the Block Location in Advance

If a crossing movement has been arranged at the block location to which the divided train is to be recovered, the rail traffic crew must tell the crew of the opposing rail traffic that:

(a) the movement is only one portion of the divided train consist, and;

(b) the Section is obstructed.

When this has been done, the Train Controller must:

(c) cancel the Proceed Authority held by the crew of the divided train, and;

(d) issue a Work Authority for the recovery of the remaining portions of the divided train.

Examples:

> *"TO (ID) is cancelled at SUMMIT Main Line*
> *Now work as required between SUMMIT Main Line and MP 242.25*
> *to recover (Rail Traffic ID) to SUMMIT Main Line."*

> *"TO (ID) is cancelled at MT BARKER Main Line*
> *Now work as required between MT BARKER Main Line and KP 62.800*
> *to recover (Rail Traffic ID) to MT BARKER Main Line."*

4.1.4 Returning to Recover the Remaining Portion

When authorised by an applicable Work Authority, the crew of the divided train may set back into the obstructed Section to recover the remaining portion of the train consist.

The train crew must:

(a) enter the obstructed Section and travel at up to normal speed, and;

(b) if necessary, comply with the requirements of any Track Work Authority worksite in the Section, and;

(c) stop 1000 metres from the protection put in place, and:

(d) travel at Restricted Speed towards the remaining portion, and;

(e) stop before, and remove the protection, and;

(f) couple to the remaining portion of the train consist.

NOTE	*Wherever possible, the Railway Track Signals should be removed from the track, rather than exploded.*

4.1.5 Recovery of the Remaining Portion

When coupled to the remaining portion of the train consist, the rail traffic crew must:

(a) perform all necessary brake tests, and;

(b) recover the remaining portion or portions of the train consist to the stipulated block location in advance.

On arrival of all portions of the divided train consist at the stipulated block location in advance, the rail traffic crew must:

(c) tell the Train Controller that:

- all of the divided train consist has arrived, complete, and;
- the Section is clear of obstructions;

(d) as necessary, remarshal the recovered portions of the train consist, and;

(e) fulfil their Work Authority.

4.2 Assisted Recovery of Divided Train

The Train Controller, in liaison with rail traffic crews, may determine that it is more effective to use other motive power to recover the disabled train in two or more portions.

If the disabled train's motive power is to be used to recover only part of the consist, this must be done as set out in clause 4.1 above, but in addition:

(a) unless otherwise instructed by the Train Controller, the crew of the disabled train must apply protection on both sides of the remaining portion, and;

(b) the Authority held by the crew of the disabled train must be cancelled upon arrival at the stipulated block location in advance.

The Train Controller must issue a Work Authority to the assisting rail traffic crew that:

(c) details the location of the disabled train consist, and;

(d) authorises travel to the obstruction, and;

(e) details the location to which the remaining portion of the disabled train consist is to be moved.

4.2.1 Assisting from the Rear – Propelling Forwards

If the assisting rail traffic is to enter the obstructed Section from the rear, and propel the remaining portion of the disabled train consist to the block location in advance, this must not be authorised until:

(a) the forward portion of the disabled train consist has been recovered to the block location in advance, and;

(b) the authority held by the disabled train's crew has been cancelled, and;

(c) the Worksite Protection Officer for any Track Work Authority worksite in the Section is made aware of the circumstances.

4.2.2 Assisting from the Rear – Hauling Backwards

If the assisting rail traffic is to enter the occupied Section from the rear, and haul the remaining portion of the disabled train's consist back to the block location at the rear, this may be permitted at the same time as the forward portion is being recovered, provided that:

(a) the crews of each movement is made aware of the other, and;

(b) each portion is to be recovered in opposite directions, and;

(c) the Worksite Protection Officer for any Track Work Authority worksite in the Section is made aware of the circumstances.

Examples:

"Proceed from STRATHALBYN Main Line to KP 62.500 where
a portion of (Rail Traffic ID) is secured and protected.
Propel the remaining portion of (Rail Traffic ID) to MT BARKER Main Line.
Note (Train ID) is standing on MT BARKER Crossing Loop."

"Work between STRATHALBYN Main Line and KP 62.500 where
a portion of (Train ID) is secured and protected.
Haul the remaining portion of (Train ID) to STRATHALBYN Goods Siding.
Note (Train ID) is working between KP 62.00 and MT BARKER."

4.2.3 Assisting Rail Traffic Entering Obstructed Section

The crew of the assisting rail traffic must :

(a) enter the obstructed section, and travel at up to Normal Speed, and;

(b) stop 1000 metres from the protection put in place, and then;

(c) travel at Restricted speed towards the remaining portion, and;

(d) stop before, and remove the protection, and;

(e) couple to the remaining portion, and;

(f) perform all necessary brake tests, and;

(g) if possible, tell the Train Controller when ready to depart, and;

(h) remove any remaining protection, and;

(i) propel or haul the remaining portion to the stipulated block location, and;

(j) report arrival to the Train Controller, and;

(k) fulfil their Authority.

5. DISABLED TRAIN

A disabled train may be assisted from a section without being divided.

The disabled rail traffic crew must attend to the requirements of clause 3.1 above.

5.1 Disabled Train

5.1.1 Authority Required

The Train Controller must issue a Restraint Authority to the assisting rail traffic crew that:

(a) cancels any Authority in effect for the disabled train, and;

(b) directs the disabled train to remain at its current location, and;

(c) advises the direction from which assistance will approach, and;

(d) details the location to which the disabled train is to be recovered.

Example:

> *"TO (ID) is CANCELLED at MP 242.5*
> *Remain at MP 242.5 until the arrival of (Rail Traffic ID)*
> *Place protection towards (the Location from which assistance will approach)*
> *(Rail Traffic ID) will provide assistance to (Location)."*

5.1.2 Crew of Disabled Train

The crew of the disabled train must

(a) not move the disabled train from its current location, and;

(b) obtain the Restraint Authority from the Train Controller, and mark the cancelled Authority as CANCELLED, and;

(c) place protection at least 500 metres in the direction advised by the Train Controller, and;

(d) tell the Train Controller when this is done.

5.2 Assisting Rail Traffic

5.2.1 Authority Required

When the Train Controller has been assured that the disabled train has been protected, the Train Controller may issue a Work Authority, to the crew of assisting rail traffic, that:

(a) details the location of the disabled train, and;

(b) authorises travel to the disabled train, and;

(c) directs the crew of the assisting rail traffic to liaise with the crew of the disabled train, and;

(d) details the location to which the disabled train is to be moved.

Examples:

> *"Proceed from STRATHALBYN Main Line to KP 68.5 where*
> *(Rail Traffic (ID) is disabled and protected.*
> *Liaise with the crew of (Rail Traffic ID) and propel (Rail Traffic ID) to*
> *MT BARKER Main Line."*

> *"Proceed from QUORN Yard Limit to MP 239.5 where*
> *(Rail Traffic ID) is disabled and protected.*
> *Liaise with the crew of (Rail Traffic ID) and haul (Rail Traffic ID) to QUORN Yard Limit"*

5.2.2 Entry to the Section

The crew of the assisting rail traffic must:

(a) enter the obstructed section and travel at up to normal speed, and;

(b) stop 1000 metres before the disabled train, and;

(c) travel at Restricted speed towards the disabled train, and;

(d) stop before, and remove the protection, in place, and;

(e) liaise with the crew of the disabled train, to travel up to the disabled train.

5.3 Coupling the Assisting Rail Traffic and Disabled Train

The crew of the assisting rail traffic must:

(a) couple to the disabled train, and;

(b) liaise with, and show the crew of the disabled train, their Authority, and;

(c) perform all necessary brake tests, in preparation for departure, and

(d) propel or haul the remaining portion to the stipulated block location.

The crew of the disabled train must:

(e) liaise with the assisting rail traffic crew, and sight the Authority held by the assisting rail traffic crew, and

(f) fulfil the Restraint Authority.

The crew of the assisting rail traffic and the crew of the disabled train must report arrival to the Train Controller.

6. DISABLED RAIL TRAFFIC – OBSTRUCTION OF SECTION

Rail traffic may become disabled, due to a derailment, obstruction, track failure or similar cause, and may not be able to be easily or immediately recovered from the Section.

Disabled rail traffic under these circumstances must be treated as an obstruction.

6.1 Clearance of Obstruction

The clearance of an obstruction may require the deployment of rail traffic and associated workers operating under the authority of:

(a) a Local Possession Authority, or;

(b) a Work Authority.

A Local Possession Authority must be used wherever it is practicable to do so.

NOTE	*Refer to Section 17 - Work on Track.*

If it is not practicable to use a Local Possession Authority to manage the clearance of an obstruction, if necessary, Work Authorities may be issued for independent rail traffic movements to work simultaneously, on either side of the obstruction.

END OF SECTION 13

Heritage Railways of South Australia

Railway Safeworking Rules

Section 14

Setting Back on Running Lines

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with the setting back of trains, on running lines on Heritage Railways in South Australia.

2. GENERAL

Set back movements are movements on running lines, conducted in the opposite direction to that authorised by the Proceed Authority for the movement.

A train may need to set back if:

(a) it cannot continue in the forward direction, or;

(b) an unsafe condition is encountered, or;

(c) a stopping place has been partially or completely overrun, and it is necessary to return to the stopping place, or;

(d) a train has become uncoupled, and it is necessary to set back towards the rear portion of the uncoupled train.

3. AUTHORITY TO SET BACK

Other than in a life-threatening emergency, the Train Controller must issue a Work Authority for a train to set back in the opposite direction to that authorised by the Proceed Authority for the movement.

NOTE	*If the Authority already in effect is a Work Authority this a bi-directional Authority and a replacement Authority may not be required.*

The Work Authority to set back must:

(a) cancel the Proceed Authority in effect, and held by the train, and;

(b) be in written form, and recorded on a Train Order form, and;

(c) specify the location to which travel is authorised, and;

(d) specify the conditions under which travel is authorised.

Examples:

"TO (ID) is cancelled at MP 253.5
Now set back from MP 253.5 to STIRLING NORTH Main Line
Stop at MP 255.7 account TWA Worksite."

"TO (ID) is cancelled at KP 62.700
Now set back from KP 62.700 to STRATHALBYN Up End YLS
Note – STRATHALBYN is attended."

3.1 Assurances

Before authorising any movement to set back in the wrong-running direction, the Train Controller must:

(a) ensure the portion of track into which the movement is to set back is clear of rail traffic and will remain so, and;

(b) apply blocking facilities to prevent the unintended issue of a conflicting Authority to occupy the affected portion of track, and;

(c) ensure any Track Occupancy Authority in the affected Section is cancelled or fulfilled, and;

(d) any Track Work Authority worksite in the affected Section is protected, and;

(e) where possible, advise workers who are using Lookout Working.

4. CONDITIONS FOR SETTING BACK

4.1 Train Controller

The Train Controller must:

(a) be assured that the movement can be conducted safely, and;

(b) give Authority to the train crew for the movement, and;

(c) make a permanent record of the details of the Authority.

4.2 Train Crew

The train crew must:

(a) unless setting back due to a life-threatening emergency, ensure that the movement is authorised, and;

(b) ensure a Competent Worker accompanies or precedes the leading vehicle to direct the movement, and;

(c) ensure that the airbrake can be applied from the leading vehicle, and;

(d) make sure that the movement does not exceed its Limit of Authority.

4.3 Speed

When setting back, a movement must travel at Restricted Speed approaching level crossings, cuttings or when visibility of the track ahead is low.

At no time must the speed of a set-back movement otherwise exceed 20 km/h.

5. LEVEL CROSSINGS

At active control level crossings, a setback movement must not proceed unless warning equipment is operating or level crossing protection is in place.

At passive control level crossings, a setback movement must not proceed unless the crossing is clear, and road or pedestrian traffic has been stopped.

A setback movement approaching a level crossing must:

(a) not proceed before it is safe to do so, and;

(b) be directed by a Competent Worker, and;

(c) not exceed 10 km/h before the leading vehicle occupies the crossing.

6. ATTENDED LOCATION OR WORKSITE TO THE REAR

Before rail traffic is permitted to set back towards an attended Block Location or worksite to the rear, the Train Controller must give advice of the details and circumstances of the movement to:

(a) the Competent Worker in charge of the attended Block Location or

(b) the Worksite Protection Officer at a Track Work Authority worksite.

7. SETTING BACK FOLLOWING AN INCIDENT

A train crew may be directed by an Emergency Services representative to set back a rail traffic movement following an incident (such as a level crossing collision).

The train crew must:

(a) tell the Train Controller about the Emergency Services directive, and;

(b) seek the Train Controller's verbal authority to set back, and;

(c) be directed by a Competent Worker at the rear, and;

(d) travel at a speed as low as practicable, and;

(e) set back no further than necessary and stop clear of the incident site, and;

(f) tell the Train Controller about the change in circumstances.

8. SETTING BACK IN A LIFE-THREATENING EMERGENCY

A train may need to set back on a running line, due a life-threatening emergency, in circumstances such as, but not limited to:

(a) a train becomes stalled on a bridge on an ascending gradient, or;

(b) a train is threatened by fire, or;

(c) the imminent collapse of the track foundation, cutting side wall, or structure, or;

(d) the location of the train is preventing the attendance of Emergency Services personnel, to attend to an emergency or incident.

A train may set back in a life-threatening emergency without any further Authority.

8.1 Conditions when Setting Back in an Emergency

The crew of a train movement, when setting back must

(a) travel at a speed as low as practicable and;

(b) sound the audible warning device frequently, and;

(c) repeatedly broadcast an emergency radio transmission, and;

(d) set back no further than necessary and stop clear of the immediate danger.

8.2 When clear of the Immediate Danger

When stopped clear of the immediate danger, the train crew must:

(a) tell the Train Controller about the circumstances, and;

(b) obtain an Authority for any further movement.

END OF SECTION 14

Heritage Railways of South Australia

Railway Safeworking Rules

Section 15

Authority Overrun

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with Authority Overrun on Heritage Railways in South Australia.

2. GENERAL

An Authority Overrun occurs when:

(a) rail traffic exceeds its permitted limits, or;

(b) workers move beyond the defined limits of their permitted occupancy.

2.1 Rail Traffic

Rail traffic exceeds its Limit of Authority when it:

(a) passes a signal at STOP without authority, or;

(b) passes a STOP sign without authority, or;

(c) exceeds the limits of a written Authority, or;

(d) enters a section without any Authority.

2.2 Track Occupancy

Workers operating under a work on track Authority exceed their Limit of Authority when:

(a) work is conducted beyond the limits specified by the work on track Authority, or;

(b) work is conducted on a track not specified within the work on track Authority, or;

(c) tracks are accessed without any Authority.

3. RESPONSE

If an Authority Overrun occurs, those involved must respond as follows:

3.1 Rail Traffic Crew

If a rail traffic crew exceeds their Limit of Authority, they must:

(a) urgently stop the movement, and;

(b) protect against any immediate danger.

3.2 Track Worker

If track workers exceed their Limit of Authority, workers must:

(a) stop all work or travel, and;

(b) immediately evacuate themselves and if possible, their equipment from the Danger Zone, and;

(c) protect against any immediate danger.

3.3 All Authority Overruns

After carrying out the actions set out above, all workers must:

(a) tell the Train Controller the details of the overrun, and;

(b) remain in communication with the Train Controller until:

(i) normal operation can be resumed, and;

(ii) relevant Authorities are cancelled or issued as appropriate.

3.4 Train Controller Actions

The Train Controller must protect the movement that has overrun its Limit of Authority and any affected rail traffic.

The Train Controller must:

(a) contact any rail traffic occupying the same section that may be on a conflicting course with the movement that has overrun, and;

(b) advise each movement to stop immediately, and to remain in voice communication with Train Control, until:

(i) relevant Authorities are cancelled or issued as appropriate, and;

(ii) normal operation can be resumed, and;

(c) apply blocking facilities to prevent the inappropriate issue of authority for entry of rail traffic to the affected section.

After the Train Controller and the rail traffic crew have protected against any immediate danger, the Train Controller must:

(d) report the details of the overrun, and;

(e) seek direction regarding the possible removal of workers from their duties.

NOTE	*The Train Controller must liaise with the Rail Safety Manager and appropriate Operations Manager to perform a safety assessment to determine if the worker can continue to perform their duty.*

3.5 Technical Fault Resulting in Authority Overrun

If it is established that the cause of an Authority Overrun was not caused by rail traffic crew error, but a technical fault including, but not limited to:

(a) a partial or total brake system failure, or;

(b) the restoration of a fixed signal to STOP in the face of closely approaching rail traffic;

the Train Controller must:

(c) liaise with the Rail Safety and Operations Managers to determine a cause of action, and;

(d) as required, issue new authorities for the rail traffic to continue to travel.

END OF SECTION 15

Heritage Railways of South Australia

Railway Safeworking Rules

Section 16

Protecting Obstructions

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with the protection of obstructions on Heritage Railways in South Australia.

2. GENERAL

The track is obstructed if it becomes unavailable for the passage of rail traffic because of:

(a) unsafe conditions or;

(b) disabled rail traffic or;

(c) workers on the track.

A track obstruction must be reported to the Train Controller.

A track obstruction must be protected in each direction.

The protection of an obstruction differs from the protection of a Track Worksite.

NOTE	*Refer to Section 17 – Work on Track.*

3. TRACK OBSTRUCTION

A track obstruction may be caused by conditions such as:

(a) an accident or incident, or;

(b) broken, missing or deformed track, or;

(c) unstable track structure, or;

(d) heat-affected track, or;

(e) flooded or washed-out track, or;

(f) a physical obstruction of the track, or;

(g) fire.

An obstructed track may require that rail traffic be excluded from the affected Section.

Train Controllers must use blocking facilities, to prevent the issue of Authorities and to exclude rail traffic from the affected section.

If necessary, the Train Controller must direct trains travelling towards a suspected obstruction, to stop immediately.

4. TYPES OF PROTECTION

Protection of obstructed track is provided using one or more of the following:

(a) competent workers displaying hand signals, or;

(b) STOP signs, or flags, or;

(c) Railway Track Signals, used in combination with either of the above.

4.1 Competent Workers

If necessary in urgent or unforeseen circumstances, Competent Workers must protect an obstruction by displaying hand signals until more formal protection measures can be implemented.

Competent Workers use hand signals to tell rail traffic crews to STOP.

4.2 Signs or Flags

Signs or Flags provide a dependable means of protection of obstructions.

Signs or Flags give rail traffic crews a warning or tell them to STOP.

STOP signs or Flags and STOP AHEAD signs may be used in conjunction with Railway Track Signals.

4.3 Railway Track Signals

Railway Track Signals:

(a) must be used for the protection of all obstructions on ARTC lines, and;

(b) must be used for the protection of any obstruction on Heritage Railway lines where visibility is reduced by cuttings, structures, or environmental conditions, and;

(c) may be used elsewhere on Heritage Railway lines.

4.3.1 Deployment of Railway Track Signals

Where they are used, three Railway Track Signals must be placed on the top of the rail:

(a) at least 50 metres in advance of the protecting STOP sign or flag, and;

(b) 20 metres apart from each other.

If there is any doubt that about the security of the Railway Track Signals placed on the track, and competent worker must remain at the site, until otherwise advised.

5. PLACEMENT OF PROTECTION

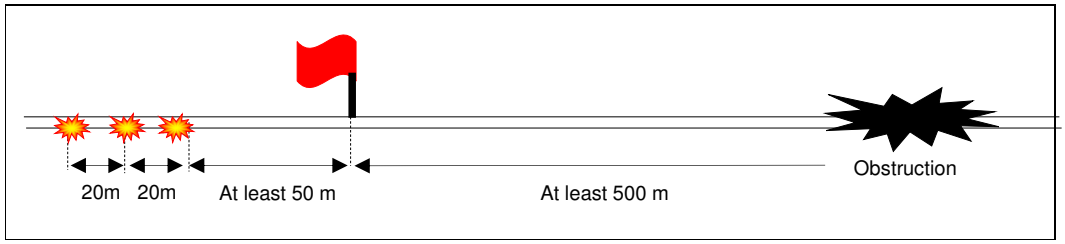
Unless advised otherwise by the Train Controller, protection for an obstruction must be placed each side of the obstruction.

The capacity of approaching rail traffic crews to clearly sight the protection must be considered, when selecting the location for the placement of protection.

WARNING!	*Protection may need to be placed a significant distance from the obstruction due to the sighting limitations caused by curves, cuttings, structures and other factors.*

A track obstruction must be protected by a STOP signal located at least 500 m ahead of the obstruction.

NOTE	*A STOP signal may be a STOP sign, or a Competent Worker displaying a STOP hand signal, red flag, or red light.*

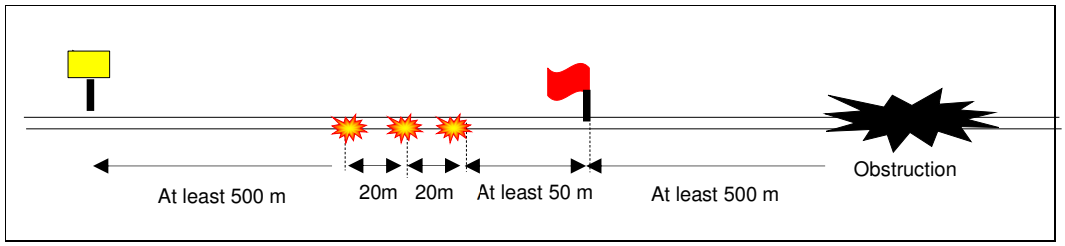


Protection of an Obstruction on Single Line (Only one direction is shown)

5.1 Advanced Warning of Protection

Wherever possible, a STOP AHEAD sign must be used to provide advanced warning to rail traffic crews that they are approaching the protection of an obstruction.

The STOP AHEAD sign must be placed at least 500m, ahead of the STOP signal in the direction of approaching rail traffic.



Warning of Protection of an Obstruction on Single Line (only one direction is shown)

5.2 Bridges

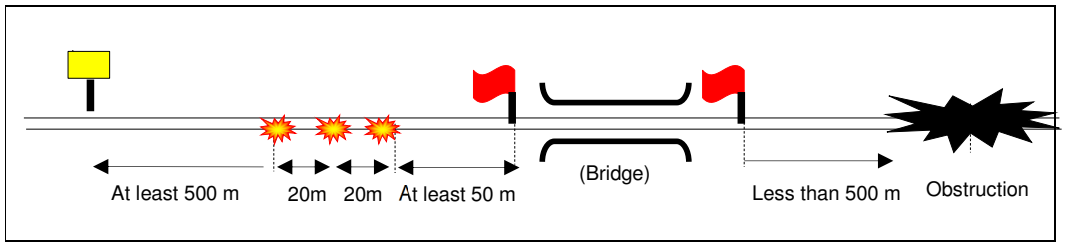
Protection of obstructions must not be placed on or under a bridge.

5.2.1 Obstruction less than 500m past a Bridge

If an obstruction is located less than 500m past a bridge:

(a) a STOP sign or flag must be placed at the entry and exit points of the bridge and;

(b) a STOP AHEAD sign must be placed at least 500m from the outermost STOP sign.



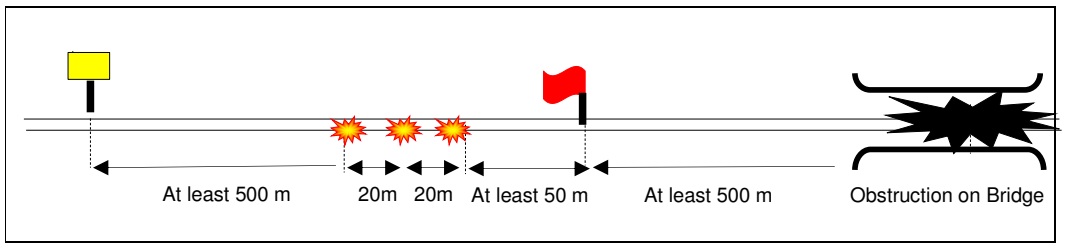
Protection of an Obstruction Located Less Than 500m from a Bridge

5.2.2 Obstruction on or under a Bridge

If an obstruction is located on or under a bridge:

(a) a STOP sign must be placed 500m ahead of the entry point to the bridge and;

(b) a STOP AHEAD sign must be placed at least 500m from the STOP sign.



Protection of an Obstruction Located Less Than 500m from a Bridge

6. PROTECTION OF RAIL TRAFFIC

Rail traffic must be protected in all circumstances where:

(a) the rail traffic needs assistance, or has become derailed, or;

(b) the rail traffic obstructs, or might obstruct, adjacent lines, or;

(c) the line on which it is travelling, is obstructed, or the rail traffic has become an obstruction.

6.1 Method of Protection

Disabled rail traffic must be protected.

The rail traffic crew must provide protection at a distance of at least 500 metres, using:

(a) in good visibility, a STOP sign or Flag, or;

(b) in low visibility, a red light, and;

(c) where used, by three Railway Track Signals, placed 20 metres apart, at least 50 metres from the STOP sign or flag.

6.2 Protection of Adjacent ARTC Line

If the adjacent ARTC line is obstructed, it must be protected before any action is carried out to protect the Heritage Railway lines.

WARNING!	*The rail traffic crew must also tell the ARTC Network Controller, or arrange for the ARTC Network Controller to be told about the obstructed ARTC line.*

The rail traffic crew must:

(a) evacuate any passengers to a safe place, on the field side, away from the ARTC line, and;

(b) determine that no rail traffic is closely approaching on the ARTC Line, and;

(c) if no rail traffic is closely approaching:

(i) if provided, deploy an emergency track circuit shorting device, and;

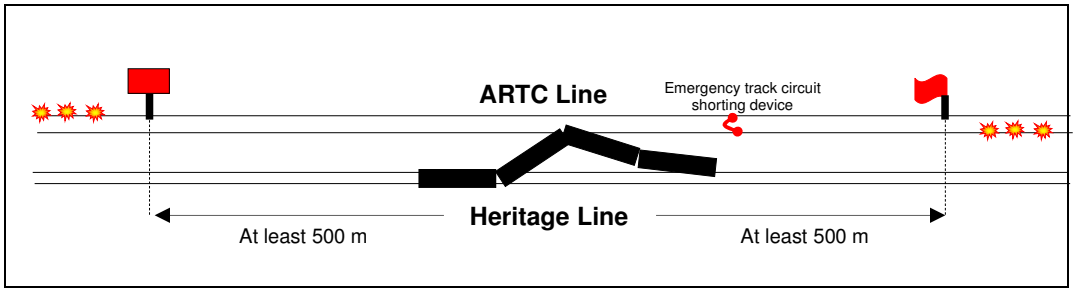
(ii) place protection at least 500 metres from the obstruction in each direction.

NOTE	*The use of an Emergency Track Circuit Jumper Device is a recommended option but is not mandatory.*

(d) if rail traffic is closely approaching:

(i) urgently move towards the approaching rail traffic, and;

(ii) display a continuous STOP signal to the approaching rail traffic.



Protection of Obstructed ARTC Line

7. CLEARANCE OF OBSTRUCTION

Protection placed for an obstruction of any type must be removed when the obstruction is cleared.

The workers who remove the protection must tell the Train Controller when this is done.

END OF SECTION 16

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 17

Work on Track Rules

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with the Work on Track activities on Heritage Railways in South Australia.

2. GENERAL

Competent workers under the overall direction of the Train Controller, must conduct the safeworking component of track work on the railway.

Occupation of the track for track work must be conducted under these rules.

On the Railway, track workers include:

(a) a track vehicle or machine operator, or;

(b) a general labourer or “fettler”, or;

(c) a workgroup supervisor or “ganger”, or;

(d) a competent worker performing an inspection or maintenance of track or civil assets, or;

(e) a competent worker, performing safeworking functions.

Track workers must comply with their general responsibilities relating to their work in the rail corridor, safety, tasks, and passing rail traffic.

NOTE	*Refer to Section 3 – General Worker Responsibilities and Section 6 – Track Worker Responsibilities.*

3. PLANNING WORK IN THE RAIL CORRIDOR

Work planned for the Rail Corridor must be assessed for safety and its potential to intrude on the Danger Zone.

Work in the Danger Zone must not:

(a) be carried out unless there is a safe place that can be easily reached, and;

(b) begin until a site safety assessment is carried out, and;

(c) begin until the required safety measures are in place.

Work in the Danger Zone must be carried out using one of the protection methods listed in this Section.

The level of safety must not be reduced:

(d) to allow rail traffic movements, or;

(e) because of a lack of Competent Workers.

Effective communication with the Train Controller must be maintained.

The Worksite Protection Officer must contact Train Control before workers enter the Rail Corridor.

The Train Controller and the Worksite Protection Officer must regularly liaise and reach an understanding about rail traffic movements that may be affected by, or affect the work on track.

3.1 Worksite Protection Officer

A worksite within the rail corridor must have a Worksite Protection Officer for the duration of the work.

A Worksite Protection Officer:

(a) has a primary duty and responsibility is to keep the worksite and workers safe, and;

(b) is responsible for managing the rail safety component of worksite protection, and;

(c) may be responsible for other tasks, but must be satisfied other work will not interfere with their primary duty and responsibility.

The Worksite Protection Officer must:

(d) make a safety assessment, and;

(e) be present on site at the worksite whilst work is being performed, and;

(f) brief workers about the worksite limits and protection, and;

(g) make sure that the rail safety component of the work is done safely, and;

(h) keep records about the work on track and the protection arrangements, and;

(i) communicate with the Train Controller about the work.

3.1.1 Assessing Safety

When making a safety assessment, Worksite Protection Officers must consider, amongst other factors:

(a) if work will affect track under the control of different Network Access Providers, and;

(b) if appropriate numbers of Competent Workers are available to protect the work, and;

(c) if easily-reached safe places are available for workers, and;

(d) if the sighting distance and the speed of approaching rail traffic allow sufficient warning time to be given by Lookouts, and;

(e) if it is necessary to exclude rail traffic from the affected line during the work, and;

(f) if there will be rail traffic on adjacent lines, and;

(g) if there will be rail traffic between or within worksites, and;

(h) if other work on track activities will affect the worksite, and;

(i) if there is safe passage to and from worksite, and;

(j) if there is public access to the rail corridor, and;

(k) if there is a risk to workers from road traffic, and;

(l) if the work will intrude on level crossings, and;

(m) if the line is track-circuited, and;

(n) if the formation of the track and the location will affect the work, and;

(o) if effective communication is available, and;

(p) if equipment used in the work will intrude into the Danger Zone, and;

(q) if other groups need to be told about or involved in the work, and;

(r) if the potential for noise, both within and external to the worksite, may have a possible impact on the worksite and worksite protection requirements.

The Worksite Protection Officer must reassess safety measures if conditions such as visibility or work locations change.

3.1.2 Work in the Joint ARTC – Heritage Railway Rail Corridors

Workers must at all times wear approved orange high-visibility clothing when working in the joint ARTC - Heritage Rail Corridor.

Worksite Protection Officers must be aware of the protection arrangements required for the adjoining ARTC Rail network.

Where necessary, Competent Workers must be qualified in the ARTC network rules and procedures.

NOTE	*Workers may be required to wear approved high-visibility clothing in other areas.*

3.2 Level Crossings

If work on track at level crossings will intrude on level crossings or affect their operation, the Worksite Protection Officer must arrange to ensure the safety of:

(a) workers, and;

(b) road, pedestrian and rail traffic.

NOTE	*The performance of some tasks on level crossings may also require liaison with road management authorities.*

4. SAFEWORKING ARRANGEMENTS

Appropriate safeworking arrangements must be selected for managing work on track in various areas.

4.1 Within Yard Limits

4.1.1 Attended Yards

If rail traffic needs to be excluded from a work area within an attended location's Yard Limits, the Worksite Protection Officer must get permission from the competent worker in charge of the attended location.

The Worksite Protection Officer must make arrangements with the competent worker in charge of the location to prevent unauthorised rail traffic entry into the work area.

The competent worker in charge of the attended location must ensure that unauthorised rail traffic entry into the work area is prevented.

4.1.2 Unattended Yards

Work within unattended yards must be conducted under the same protection arrangements as work conducted outside of yard limits.

4.2 Outside of Yard Limits

Work in the Danger Zone may be carried out by using one of the following authorities:

(a) Local Possession Authority;

(b) Track Occupancy Authority;

(c) Track Work Authority;

(d) Work Authority;

or under the protection of Lookout Working.

5. LOCAL POSSESSION AUTHORITY

A Local Possession Authority must be used to provide protection for major work on track activities, where access to the track by multiple workgroups at multiple locations, their equipment, and associated rail traffic is required.

Works conducted as part of a Local Possession must be supervised by a Possession Coordinator, located at the worksite whenever work is in progress.

The Possession Coordinator must authorise, coordinate and record all activities that occur within the Local Possession limits.

Unless authorised for an emergency, the intention to establish a Local Possession must be advertised.

A Local Possession Authority:

(a) must be issued by the Train Controller to the Possession Coordinator, and;

(b) allows for multiple work groups at multiple, work sites, associated rail traffic and equipment to occupy the portion of track within the Local Possession limits, and;

(c) excludes rail traffic that is not associated with the work, from a defined portion of track for a specified period, and;

(d) allows for the track be broken or obstructed as required, and;

(e) may extend over multiple Sections.

Once a Local Possession Authority is issued:

(f) the Possession Coordinator must assume responsibility for management of all activities within the Local Possession limits from the Train Controller, and;

(g) the Train Controller must relinquish responsibility for the management of all activities within the Local Possession limits to the Possession Coordinator.

5.1 Issuing a Local Possession

The Train Controller must give permission for the establishment of a Local Possession, and issue the Local Possession Authority.

5.2 Possession Coordinator

At all times whilst it is in effect, there must be a nominated Possession Coordinator located within the limits of the worksites authorised by the Local Possession Authority.

A Possession Coordinator is responsible for coordinating the rail safety component of worksite protection for the entire limits of the Local Possession.

A Possession Coordinator may do other work, but must be satisfied that other work will not interfere with their protection duties.

The Possession Coordinator must:

(a) get the Local Possession Authority from the Train Controller, and;

(b) be responsible for the overall protection of workers from rail traffic, and;

(c) make sure that the Local Possession limits are protected against the unauthorised entry or exit of rail traffic, and;

(d) make sure that each worksite within the Local Possession limits has a Worksite Protection Officer while work is being performed, and;

(e) establish effective communication with Worksite Protection Officers, and;

(f) make sure Worksite Protection Officers keep the tracks between worksites and worksite protection, clear of obstructions, and;

(g) coordinate the protection of all worksites within the Local Possession limits, and;

(h) make sure that work in the Danger Zone does not begin before the required safety measures are in place, and;

(i) coordinate the movement of rail traffic within the Local Possession limits.

5.3 Protecting the Local Possession Limits

The Train Controller must apply blocking facilities to prevent the issue of an Authority to rail traffic not associated with the works, to enter the Local Possession limits.

The Possession Coordinator must make sure that in-field protection is placed at all points of entry to the Local Possession limits.

In-field protection for a Local Possession must comprise of STOP signs in addition to any other appropriate safety measures.

The distance between the STOP signs designating the Local Possession limits and a fixed worksite must not be less than 400m.

5.4 Multiple Worksites

If there are multiple worksites within Local Possession limits, a Worksite Protection Officer must be on duty at each worksite when work is being done.

Worksite Protection Officers must comply with the Possession Coordinator’s instructions.

Worksites must be protected by in-field protection placed at least 400m from the worksite, on all approaches.

Worksites less than 400m apart must be treated as one worksite.

If worksites are more than 400m but less than 800m apart, infield protection must be placed midway between the worksites

In addition to their primary responsibilities, when protecting a workgroup within a Local Possession Limits, Worksite Protection Officers must:

(a) must make sure that tracks between worksites and Local Possession limits remain unobstructed, and;

(b) effectively communicate with the Possession Coordinator.

5.5 Rail Traffic

5.5.1 Rail Traffic Travel Within Local Possession Limits

Only rail traffic associated with a Local Possession may enter and travel within the Local Possession limits.

The Possession Coordinator or delegate must manage all rail traffic movement within the Local Possession limits.

Before entering the Local Possession limits, rail traffic crews must verify with the Possession Coordinator or delegate that the Local Possession Authority is in effect.

5.5.2 Rail Traffic Travel on Adjacent Lines

NOTE	*Adjacent lines may include lines on other networks or lines within yard limits but which are not included within the Local Possession limits.*

If rail traffic can travel on adjacent lines, the Possession Coordinator must arrange for Worksite Protection Officers to implement safety measures to reduce the risk from rail traffic on the adjacent lines.

The Worksite Protection Officers may need to arrange for :

(a) the speed of rail traffic on adjacent lines to be restricted, and;

(b) the securing of points to prevent rail traffic entry into the Local Possession limits.

5.5.3 Piloting Rail Traffic

The Possession Coordinator or a delegate must pilot rail traffic into and through the Local Possession limits, and provide instructions to rail traffic crews about the conditions of travel.

5.5.4 Rail Traffic Departing the Local Possession

Rail traffic must depart from the Local Possession limits only when in possession of an appropriate Authority, issued by the Train Controller.

5.6 Communication with Train Control

The Possession Coordinator must be the only point of contact between Train Control and work groups for matters of Local Possession protection.

The Possession Coordinator must tell the Train Controller about:

(a) protection arrangements at the limits of the Local Possession, and;

(b) any required protection arrangements on the lines adjacent to the Local Possession, and;

(c) work progress, and any need for an extension of time, and;

(d) arrangements for the movement of rail traffic into and out of the Local Possession limits.

The Train Controller must liaise with an adjoining Network's Network Control Officer about any required protection arrangements on the lines adjacent to the Local Possession limits.

5.7 Fulfilling a Local Possession Authority

A Local Possession Authority may be fulfilled for:

(a) the entire portion of track included in the Local Possession limits, or;

(b) fulfilled progressively for one or more portions of track.

The Local Possession Authority may be fulfilled only when the Possession Coordinator:

(c) arranges for work to continue under another type of work on track authority, or;

(d) tells the Train Controller that:

  (i) all worksites have been cleared, and;

  (ii) protection has been removed, and;

  (iii) the portion of track included in the Local Possession limits has been certified as available for use.

The Possession Coordinator must tell the Train Controller about operating restrictions that have been placed or removed.

Where arrangements have been made to continue work under another type of work on track authority the Possession Coordinator must ensure that the protection for the Local Possession limits is not removed until the new work on track authority is issued and the required protection is in place.

Once a Local Possession Authority is fulfilled:

(e) the Possession Coordinator must relinquish responsibility for management of all occupancy and on-track activities to the Train Controller, and;

(f) the Train Controller must reassume responsibility for the management of all occupancy and on-track activities from the Possession Coordinator.

5.8 Keeping Records

Train Controllers and Possession Coordinators must make a permanent record of Local Possession details.

Possession Coordinators must keep permanent records of:

(a) the Local Possession Authority, and;

(b) protection arrangements for the Local Possession limits, and;

(c) communications with the Worksite Protection Officers about protection arrangements for individual worksites.

6. TRACK OCCUPANCY AUTHORITY

A Track Occupancy Authority may be used to provide protection of work on track activities, where access to the track by a workgroup and their equipment at a single worksite, and the exclusion of all rail traffic is required.

A Track Occupancy Authority may also be used to authorise the movement of track vehicles through one or more Sections.

A worksite operated under a Track Occupancy Authority must be supervised by a Worksite Protection Officer, located at the worksite whenever works are in progress.

The Worksite Protection Officer must liaise with the Train Controller, and coordinate and record all activities associated with the Track Occupancy Authority.

A Track Occupancy Authority:

(a) authorises occupation of track within specified limits, for work on track or track vehicle movements, and;

(b) may extend over more than one Sections, and;

(c) is issued by the Train Controller to a Worksite Protection Officer, and;

(d) provides exclusive occupancy of a portion, or all of one or more Sections, and;

(e) excludes rail traffic from the Sections in which the Track Occupancy Authority is in effect.

The Danger Zone must not be occupied before the Track Occupancy Authority is issued and worksite protection is applied.

Multiple Track Occupancy Authorities may be issued for different portions of a single Section, provided that the individual Track Occupancy Authority limits do not overlap.

Once the Track Occupancy Authority is issued:

(f) the Worksite Protection Officer assumes responsibility for the protection of the Track Occupancy Authority limits, and;

(g) the Train Controller maintains overall responsibility for the management of the Section, including the track either side of the Track Occupancy Authority limits.

6.1 Track Occupancy Authority Limits

The limits of a Track Occupancy Authority must be stipulated as being between clearly defined locations such as:

(a) one YARD LIMIT sign and another YARD LIMIT sign, or;

(b) defined clearance points wholly within the Yard Limits of a single location, or;

(c) one Milepost or Kilometre Post to another Milepost or Kilometre Post, or;

(d) a defined clearance point to a Milepost or Kilometre Post, or;

(e) a YARD LIMIT sign to a Milepost or Kilometre Post.

6.2 Issue of a Track Occupancy Authority

The Train Controller must permit and issue a Track Occupancy Authority.

Before issuing a Track Occupancy Authority, the Train Controller must make sure that:

(a) the track within the limits of the proposed Track Occupancy Authority is unoccupied, and will remain unoccupied, and;

(b) the Worksite Protection Officer knows about existing obstructions, and;

(c) the Worksite Protection Officer understands and agrees to the limits of the Track Occupancy Authority, and;

(d) blocking facilities have been applied to prevent the issue of an Authority for rail traffic to enter into the Track Occupancy Authority limits, and;

(e) the location has been verified by using, for example:

  (i) a Milepost or Kilometre Post and Section name, or;

  (ii) points identification number, or;

  (iii) a road crossing name, or;

  (iv) a bridge identification.

6.2.1 Additional Track Occupancy Authority in a Section

The Train Controller may permit one or more additional Track Occupancy Authorities to be established in a single Section only if:

(a) the Worksite Protection Officers have consulted with each other, and are aware of the arrangements, and;

(b) the limits of the Track Occupancy Authorities do not overlap, and ;

(c) the distance between the Track Occupancy Authority limits is at least 400m.

Each Track Occupancy Authority must be recorded in permanent form separately, and where possible have its own blocking facility applied.

6.2.2 Authorising a Track Occupancy Authority Behind Rail Traffic

Before issuing the Track Occupancy Authority, the Train Controller must make sure that the preceding rail traffic:

(a) is authorised to travel only on a single direction only, and;

(b) has passed clear and complete beyond:

  (i) the limits of the proposed Track Occupancy Authority, or;

  (ii) the starting point of the proposed track vehicle movement.

6.3 Worksite Protection Officer

A Worksite Protection Officer is responsible for managing the rail safety component of worksite protection, and must:

(a) exercise a primary duty and responsibility to keep the worksite and workers safe, and;

(b) be satisfied that other work will not interfere with protection duties, and;

(c) get the Track Occupancy Authority from the Train Controller, and;

(d) ensure that the limits of the Track Occupancy Authority are protected against the unauthorised entry or exit of rail traffic, and;

(e) tell workers about the kinds and limits of protection in place:

(i) before work begins, and;

(ii) if the protection arrangements change.

6.4 Protecting Track Occupancy Authority Limits

6.4.1 Forms of Protection

The Train Controller must apply blocking facilities to prevent the issue of an Authority for rail traffic to enter into the Track Occupancy Authority limits.

If used, in-field protection for a Track Occupancy Authority must comprise of STOP signs in addition to any other appropriate safety measures.

If used, in-field protection must be placed at least 400m from the outermost worksite, in the direction of the Track Occupancy Authority limits.

6.4.2 Protecting Worksites

If separate worksites are within the Track Occupancy Authority limits, and track vehicles are in use, in-field protection must be placed at least 400m on each side of each worksite.

If no track vehicles are in use, in field protection is not required between worksites.

6.4.3 Protecting Track Occupancy Authority Limits Within A Block Location

If the limits of a Track Occupancy Authority extend between the Yard Limits of a block location, protection must be placed at each YARD LIMIT sign at the location.

If the limits of a Track Occupancy Authority are between the clearance points for a single track within a block location:

(a) protection must be placed at the clearance points, and;

(b) wherever possible, points must be set and locked to direct rail traffic away from the Track Occupancy Authority limits.

6.4.4 Track Vehicle Journey

If a Track Occupancy Authority is issued to authorise a track vehicle journey, in-field protection of the Track Occupancy Authority limits is not required.

The Train Controller must apply blocking facilities to prevent the issue of an Authority for conflicting rail traffic to enter into the Track Occupancy Authority limits.

If a track vehicle journey is stopped to carry out work, that work must be protected as a worksite.

6.4.5 Track Vehicle Entering Track Occupancy Authority Limits

The Train Controller may authorise a track vehicle to travel up to the limits of a Track Occupancy Authority, if:

(a) the Worksite Protection Officer is made aware of the approach of the proposed track vehicle movement, and;

(b) the track vehicle is associated with the work being performed within the Track Occupancy Authority limits, and;

(c) the Worksite Protection Officer is prepared and ready to admit the track vehicle into the Track Occupancy Authority limits.

The track vehicle must travel to the limits of the existing Track Occupancy Authority limits under the authority of a separate Track Occupancy Authority.

6.4.6 Track Vehicle Departing the Track Occupancy Authority

A Track Vehicle must depart from the Track Occupancy Authority limits only when in possession of an appropriate Authority, issued by the Train Controller.

6.5 Communication with Train Control

The Worksite Protection Officer must be the only point of contact between Train Control and work groups for matters of Track Occupancy Authority protection.

The Worksite Protection Officer must tell the Train Controller about:

(a) protection arrangements at the limits of the Track Occupancy Authority, and;

(b) any required protection arrangements on the lines adjacent to the Track Occupancy Authority limits, and;

(c) work progress, and any need for an extension of time, and;

(d) arrangements for the movement of rail traffic into and out of the Track Occupancy Authority limits.

The Train Controller must liaise with an adjoining Network's Network Control Officer about any required protection arrangements on the lines adjacent to the Track Occupancy Authority limits.

6.6 Suspending and Re-Instating a Track Occupancy Authority

A Track Occupancy Authority may be may be suspended to allow for the passage of rail traffic, then re-instated following the passage of rail traffic, without the need to issue another Track Occupancy Authority.

A Track Occupancy Authority is suspended when the Worksite Protection Officer tells the Train Controller that:

(a) worksites have been cleared, and;

(b) any in-field protection has been removed, and;

(c) the portion of track included in the TOA has been certified as fit for use.

The Worksite Protection Officer must also tell the Train Controller about any operating restrictions that have been placed or removed.

When the Worksite Protection Officer reports the Track Occupancy Authority is suspended, the Train Controller may:

(d) give advice to rail traffic crews about any operating restriction imposed, and;

(e) issue an Authority for the rail traffic to enter the section.

After the rear of the rail traffic has cleared the worksite or the starting point of a track vehicle journey, and the rail traffic is not returning, the Worksite Protection Officer may ask the Train Controller to re-instate the Track Occupancy Authority.

6.7 Fulfilling a Track Occupancy Authority

A Track Occupancy Authority may be fulfilled only when the Worksite Protection Officer:

(a) arranges for work to continue under another type of work on track authority, or

(b) tells the Train Controller that:

  (i) all worksites have been cleared, and;

  (ii) protection has been removed, and;

(iii) the portion of track included in the Track Occupancy Authority limits has been certified as available for use.

The Worksite Protection Officer must tell the Train Controller about operating restrictions that have been placed or removed.

Where arrangements have been made to continue work under another type of work on track authority the Worksite Protection Officer must ensure that the protection for the Track Occupancy Authority limits is not removed until the new work on track authority is issued and the required protection is in place.

6.8 Keeping Records

Train Controllers and Worksite Protection Officers must make a permanent record of Track Occupancy Authority details.

The Worksite Protection Officer must keep permanent records of:

(a) the Track Occupancy Authority, and;

(b) protection arrangements for the Track Occupancy Authority limits, and;

(c) communication with the Train Controller about protection arrangements and changes to protection arrangements.

7. TRACK WORK AUTHORITY

A Track Work Authority may be used to provide protection of a worksite, between rail traffic movements.

A Track Work Authority worksite must be supervised by a Worksite Protection Officer who must be located at the worksite being authorised by the Track Work Authority, whilst works are in progress.

The Worksite Protection Officer must liaise with the Train Controller, and coordinate and record all activities associated with the Track Work Authority.

A Track Work Authority must not extend beyond the limits of a single Section.

A Track Work Authority:

(a) authorises occupation of track within specified limits, for work on track, and;

(b) is issued by the Train Controller to a Worksite Protection Officer, and;

(c) allows rail traffic to enter the Section in which the Track Work Authority is in effect, and;

(d) requires a workgroup to provide their own protection from the approaching rail traffic, and;

(e) does not give exclusive occupancy of the track to the workgroup, and;

(f) requires that the track be restored for the passage of rail traffic as required.

The track must not be subject to work that alters the structure or geometry of the track to such an extent that the safe passage of rail traffic is put at risk.

Track vehicles and other on-track equipment may be used within Track Work Authority limits, subject to the conditions outlined in this Rule.

The Track Work Authority limits must extend at least 200m beyond the outermost worksite.

The Danger Zone must not be occupied before the Track Work Authority is issued and worksite protection is in place.

Once the Track Work Authority is issued:

(g) the Worksite Protection Officer is responsible for:

  (i) placing protection at the Track Work Authority limits, and;

  (ii) telling the Train Controller about Track Work Authority worksite protection arrangements, and;

  (iii) permitting rail traffic to pass through the worksite, if required.

(h) the Train Controller maintains overall responsibility for the management of the Section including:

  (i) issuing Authorities for rail traffic travel through the Section, and;

  (ii) advising the Worksite Protection Officer of the approach of rail traffic, and;

  (iii) advising rail traffic crews of the Track Work Authority worksite, and location of worksite protection.

7.1 Issuing a Track Work Authority

The Train Controller must permit and issue a Track Work Authority.

Before issuing a Track Work Authority, the Train Controller must make sure that:

(a) the track is unoccupied, and will remain unoccupied, and;

(b) the Worksite Protection Officer knows about existing obstructions, and;

(c) the Worksite Protection Officer understands and agrees to the limits of the Track Work Authority, and;

(d) the location has been verified by using, for example:

  (i) a Milepost or Kilometre Post and Section name, or;

  (ii) points identification number, or;

  (iii) a track name, within a block location, or;

  (iv) a road crossing name, or a bridge identification.

7.2 Worksite Protection Officer

A Worksite Protection Officer is responsible for managing the rail safety component of worksite protection, and must:

(a) exercise a primary duty and responsibility to keep the worksite and workers safe, and;

(b) be satisfied that other work will not interfere with protection duties, and;

(c) get the Track Work Authority from the Train Controller, and;

(d) ensure that the limits of the Track Work Authority are protected against the unauthorised entry or exit of rail traffic, and;

(e) manage the passage of rail traffic through the worksite;

(f) tell workers about the kinds and limits of protection in place:

  (i) before work begins, and;

  (ii) if the protection arrangements change.

7.3 Protecting Track Work Authority Limits

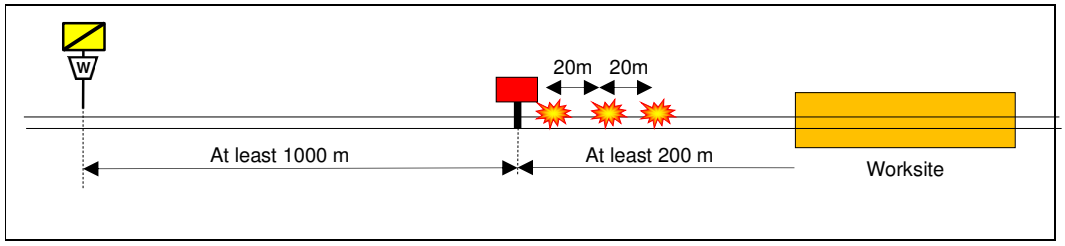
The Train Controller must provide written advice to rail traffic crews of the details of the limits of a Track Work Authority in advance of their entry into the occupied Section.

The advice to rail traffic crews must be included in the Authority to enter the section.

Example:

> *"Proceed from (TO start location) to (TO end location)*
> *Note TWA Worksite located between (KP / MP locations)."*

The Worksite Protection Officer must use STOP AHEAD and STOP signs to protect the Track Work Authority limits in each direction.



Protection of an Obstruction on Single Line (Only one direction is shown)

STOP signs protecting the Track Work Authority limits must be placed in the centre of the track, at least 200m from the outermost worksite, in each direction.

The STOP AHEAD signs must be placed at least 1000 m from the STOP signs.

A WHISTLE Sign must be placed adjacent to the STOP AHEAD Sign.

The Worksite Protection Officer must use Railway Track Signals if visibility is limited.

Worksite protection must be in place before workers enter or re-enter the Danger Zone.

7.4 Rail Traffic

7.4.1 Approach to the Track Work Authority Limits

Rail traffic crews approaching the Track Work Authority limits must be prepared to stop before the STOP sign located at the Track Work Authority limits.

7.4.2 Admitting Rail Traffic Into Track Work Authority Limits

Rail traffic crews must not pass STOP signs or enter the Track Work Authority limits until permitted to do so by the Worksite Protection Officer.

Before permitting rail traffic to enter the Track Work Authority limits and pass through worksites, the Worksite Protection Officer must make sure that:

(a) workers are in safe places, and;

(b) the track is unobstructed and safe for the passage of rail traffic, and;

(c) the STOP sign is removed to allow the rail traffic to proceed.

When permitting rail traffic to proceed into the Track Work Authority limits, the Worksite Protection Officer or delegate must:

(d) if no temporary speed restriction is in place, tell the rail traffic crew at what speed to travel, and;

(e) tell rail traffic crews about the locations of any further STOP signs or hand signallers, and;

(f) display a PROCEED WITH CAUTION Hand Signal to the rail traffic crew.

7.4.3 Rail Traffic Clearing Track Work Authority Limits

Rail traffic crews must be advised when rail traffic is clear of Track Work Authority limits and can resume normal speed by:

(a) verbal communication from the Worksite Protection Officer, or;

(b) an ALL CLEAR hand signal from the departure-end Track Work Authority limit.

7.5 Communication with Train Control

The Worksite Protection Officer must be the only point of contact between Train Control and work groups for matters of Track Work Authority protection.

The Worksite Protection Officer must tell the Train Controller about:

(a) protection arrangements at the limits of the Track Work Authority, and;

(b) any required protection arrangements on the lines adjacent to the Track Work Authority limits, and;

(c) work progress, and any need for an extension of time, and;

(d) arrangements for the movement of rail traffic into and out of the Track Work Authority limits.

The Train Controller must liaise with an adjoining Network's Network Control Officer about any required protection arrangements on the lines adjacent to the Track Work Authority limits.

7.6 Fulfilling a Track Work Authority

A Track Work Authority may only be fulfilled when the Worksite Protection Officer:

(a) arranges for work to continue under another type of work on track authority, or

(b) tells the Train Controller that:

  (i) all worksites have been cleared, and;

  (ii) protection has been removed, and;

  (iii) the portion of track included in the Track Work Authority limits has been certified as available for use.

The Worksite Protection Officer must tell the Train Controller about operating restrictions that have been placed or removed.

Where arrangements have been made to continue work under another type of work on track authority, the Worksite Protection Officer must ensure that the protection for the Track Work Authority limits is not removed until the new work on track authority is issued and the required protection is in place.

7.7 Keeping Records

Train Controllers and Worksite Protection Officers must make a permanent record of Track Work Authority details.

The Worksite Protection Officer must keep permanent records of:

(a) the Track Work Authority, and;

(b) protection arrangements for the Track Work Authority limits, and;

(c) communication with the Train Controller about protection arrangements, changes to protection arrangements, and anticipated rail traffic movement, and;

(d) the passage of rail traffic through the Track Work Authority limits.

8. LOOKOUT WORKING

If a safety assessment shows that it is safe, some kinds of work may be done in the Danger Zone without a work on track Authority.

Lookout Working permits limited work to be performed without a work on track Authority.

Lookouts are the only safety measure used in this method of working on track.

8.1 Assessment

Before selecting Lookout Working as a method of protection, the Worksite Protection Officer must assess the safety of the proposed work.

The work to be performed must not:

(a) be performed at night, or at times of low visibility, or;

(b) be used to protect work that breaks the track or alters track geometry or structure, or;

(c) be used to protect work that require the use of tools or machinery other than light, non powered hand tools, or;

(d) interfere with the ability of the worker to respond to a Lookout's warning.

8.2 Safe Places

An easily-reached safe place must be available if Lookout Working is used.

Workers must immediately be able to remove themselves, tools and materials to a safe place when told to do so by a Lookout.

8.3 Worksite Protection Officer

At all times there must be a nominated Worksite Protection Officer present at the worksite during Lookout Working.

A Worksite Protection Officer is responsible for managing the rail safety component of worksite protection, and must:

(a) exercise a primary duty and responsibility to keep the worksite and workers safe, and;

(b) be satisfied that other work will not interfere with protection duties, and;

(c) tell workers about the location of safe places, and;

(d) determine the number of Lookouts required to protect the work, and;

(e) be the only person to speak with the Train Controller about the safety arrangements, and;

(f) reassess safety measures if conditions, such as visibility, change, and;

(g) make sure Lookouts do not work continuously at the same location for more than 60 minutes.

8.4 Placing Lookouts

The Worksite Protection Officer must make sure that:

(a) the locations of Lookouts and the visibility conditions give lookouts enough sighting distance of approaching rail traffic and;

(b) when rail traffic approaches, Lookouts can warn workers in time to allow them to:

(i) react to the warning of the approach of rail traffic, and;

(ii) move themselves and their equipment to a safe place before the rail traffic arrives.

The Lookout must remain within sight and hearing distance of the workers being protected.

To give sufficient warning time, a single additional Lookout may be used, in each direction.

The additional Lookout must remain within sight and hearing distance of the Lookout closest to the worksite.

The Worksite Protection Officer must:

(c) reassess safety measures if conditions, such as visibility, change, and;

(d) make sure Lookouts do not work continuously at the same location for more than 60 minutes.

8.5 Communication With Train Control

Work in the Danger Zone must not begin until the Worksite Protection Officer has spoken with the Train Controller about the use of Lookout Working.

The Worksite Protection Officer must tell the Train Controller:

(a) their name and contact details, and;

(b) the location of the work, and;

(c) the type of work to be done, and;

(d) the intended start and finish times.

The Worksite Protection Officer must also get train running information for the work location from the Train Controller.

8.6 Lookouts

Lookouts must:

(a) keep watch for rail traffic approaching the worksite from either direction, and;

(b) warn workers immediately if rail traffic approaches the worksite.

WARNING!	*Lookouts must not use radios or telephones to warn workers of approaching rail traffic.*

Lookouts must not:

(c) manage the passage of rail traffic, or;

(d) do any other work.

8.7 Ending Lookout Working

The Worksite Protection Officer must tell the Train Controller when work is completed and the workers and their equipment are clear of the Danger Zone.

8.8 Keeping Records

Train Controllers and Worksite Protection Officers must make a permanent record of the details of Lookout Working.

The Worksite Protection Officer must keep permanent records of:

(a) safety measures for the worksite, and;

(b) communication with the Train Controller about safety measures, and;

(c) rail traffic information.

9. TEMPORARY SPEED RESTRICTIONS

It may be necessary to temporarily reduce the speed of rail traffic over a portion of track below that which would otherwise apply for the locality.

A Temporary Speed Restriction (TSR) must be imposed as necessary, to temporarily reduce the speed of rail traffic to enable it to travel over a portion of track in safety.

The limits of a TSR must be marked by Signs or Marker Posts wherever possible.

The details of a TSR must be published in a Network Notice wherever possible.

TSR Marker Posts may be used only if written advice of TSR details is provided to Rail Traffic Crews.

TSR Signs may be used irrespective of the publication of TSR details.

NOTE	*Refer to Section 10 – Indicators, Rail Traffic Markers and Signs.*

9.1 Imposing and Reporting Temporary Speed Restrictions

Competent track workers who determine the need for a temporary reduction of speed over a portion of track must:

(a) advise the Train Controller of the details of the temporary speed restriction, including:

(i) the exact location of the start and end points of the TSR, using mile post or kilometre post references, and;

(ii) the speed applicable for the TSR, and;

(iii) if TSR signs or TSR Marker Posts have been erected.

(b) arrange for the erection of TSR signs or TSR Marker Posts, if these are to be used, and;

(c) provide written advice to the Operations Manager of the details of the TSR to enable these to be advertised in a Network Notice.

9.2 TSR Sign Arrangements

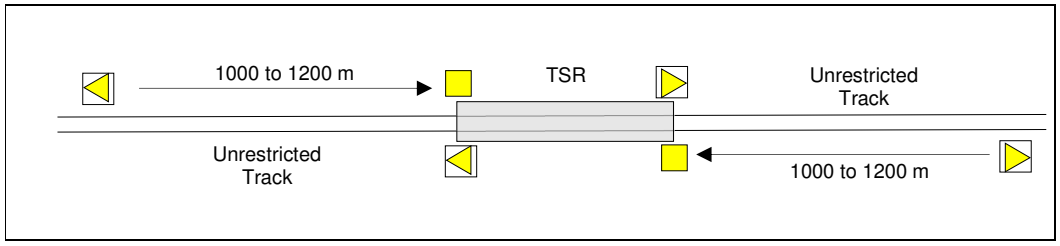
Where used, TSR Signs must be arranged as follows:

(a) a TSR AHEAD sign, erected between 1000 m and 1200 m from the TSR START sign, and;

(b) a TSR START sign erected at the start of the portion of track subject to the TSR, and;

(c) a TSR END sign erected at the end of the portion of track subject to the TSR.

Example:



TSR Sign Placement – Unrestricted Track on Each Side of the TSR

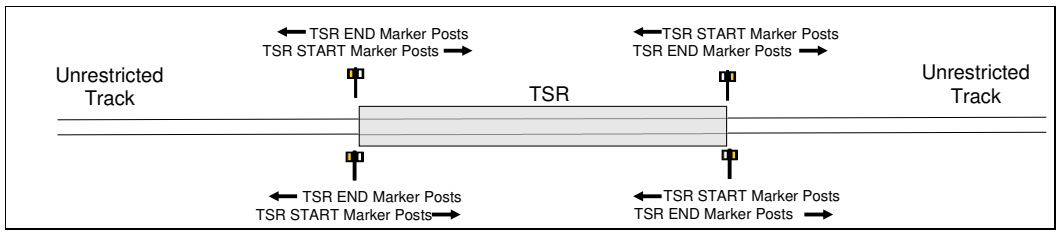
9.3 TSR Marker Post Arrangements

Where used for a single TSR, for each direction of approaching rail traffic, TSR Marker Posts must be arranged as follows:

(a) a TSR START Marker Post must be placed on each side of the track, at the start of the portion of track subject to the TSR.

(b) a TSR END Marker Post must be placed on each side of the track, at the end of the portion of track subject to the TSR.

Example:



TSR Marker Post Placement – Unrestricted Track on Each Side of the TSR

NOTE	*The TSR Marker Post is double-sided.* *The Yellow TSR START Marker is displayed on one side.* *The White TSR END Marker is displayed on the reverse.*

9.4 Adjoining Temporary Speed Restrictions

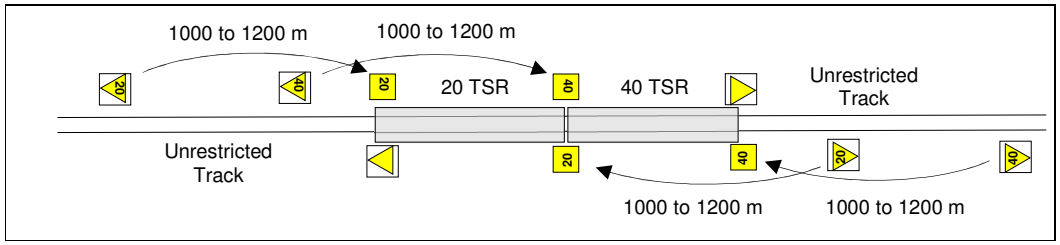
If two or more adjoining TSRs each other:

(a) a TSR AHEAD sign must be placed to the left side of the track as seen by approaching rail traffic between 1000 m and 1200 m in advance of the TSR START sign for each TSR, and;

(b) a TSR START sign must be placed to the left side of the track as seen by approaching rail traffic, at the start of the portion of track subject to a restriction of speed, for each TSR, and;

(c) a TSR END sign must be placed only at the end of the final TSR.

Example:



TSR Sign Placement – Adjoining TSRs of differing speeds

Where used for adjoining TSRs, for each direction of approaching rail traffic, TSR Marker Posts must be arranged as follows:

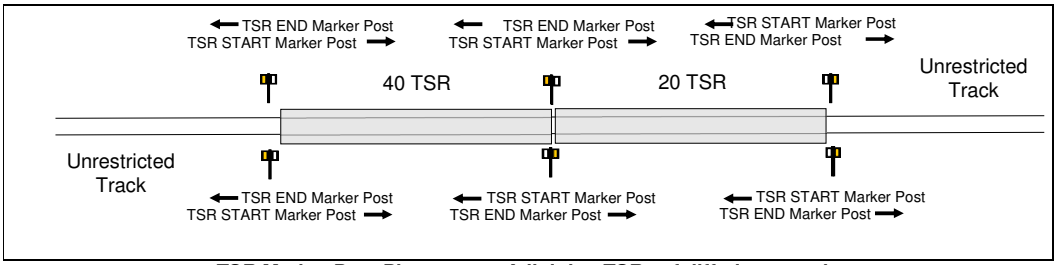
(d) a TSR START Marker Post must be erected each side of the track, at the start of the first TSR, and;

(e) a TSR START Marker Post must be erected on the left side of the track, and a TSR END Marker Post must be erected on the right side of the track, at the start of an adjoining TSR, and;

(f) a TSR END Marker Post must be erected each side of the track at the end of the final TSR, where speed may be increased to normal speed.

NOTE	*The TSR Marker Post is double-sided.* *The Yellow TSR START Marker is displayed on one side.* *The White TSR END Marker is displayed on the reverse.*

Example:



TSR Marker Post Placement – Adjoining TSRs of differing speeds

END OF SECTION 17

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 18

Movement of Track Vehicles

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with the movement of track vehicles on Heritage Railways in South Australia.

2. GENERAL

Track vehicles travelling on the Railway may do so:

(a) during the performance of mechanised work, or;

(b) for track inspection, or;

(c) closely following rail traffic, prepared to combat any lineside fires, or;

(d) to be positioned for work at a later time.

Track vehicles include but are not limited to:

(e) light, non-powered track vehicles, and;

(f) light self propelled track vehicles, and;

(g) heavy self propelled track vehicles, and;

(h) bimodal road-rail vehicles.

NOTE	*A light track vehicle is a track vehicle which can be removed from the track by two people, without mechanical assistance.* *A bimodal road-rail vehicle that can be driven from the track without assistance is a light track vehicle.*

A competent worker must be in charge of all track vehicle movements and must ride in the leading vehicle.

A competent worker in charge of a track vehicle travelling as a train must be competent in Train Order Working.

2.1 Approval

Track vehicles used on the Network must be approved as fit for purpose.

NOTE	*The Track Manager or delegate must approve track vehicles for use, and maintain a track vehicle register.*

2.2 Conditions for Travel

If track vehicles are fitted with compatible coupling devices, they must be coupled together during travel.

All track vehicles must be uniquely identified by a clearly visible identification number.

Track vehicles must not be loaded beyond their stipulated load and braking capacity.

Loading must be stowed and secured to prevent it moving or falling during travel.

Workers must ride on track vehicles only in positions specifically designed for that purpose.

Except within the limits of a Local Possession, Track Occupancy Authority or Track Work Authority, track vehicles must occupy running lines, only with the permission of:

(a) within an attended location, the competent worker in charge of the location, or;

(b) elsewhere, the Train Controller.

Track vehicles must enter or be placed on running lines only:

(c) within Yard Limits, or;

(d) within the Limits of a work on track Authority.

The competent worker in charge of a movement must tell the Train Controller when the rearmost vehicle has cleared:

(e) Yard Limits, and;

(f) a Section, and;

(g) running lines, and;

(h) any other location stipulated by the Train Controller.

Where a track vehicle is traveling in any location where the track may be jointly occupied by workers, other track vehicles, or a train, it must travel at Restricted Speed.

2.3 Authority to Travel

Track vehicles travelling singly, coupled, or in convoy in a Section, may travel under the authority of a Track Occupancy Authority.

Track vehicles in convoy must not travel as a train.

Only Heavy Track Vehicles may travel as a train, under the authority of a Proceed Authority.

NOTE	*A Proceed Authority is issued via a Train Order form.* *Track vehicles travelling as a train must be allocated a Train ID Number.*

Before travel is authorised, the Train Controller must be told about:

(a) the number and types of track vehicles in a movement, and;

(b) the identification numbers of all vehicles in a convoy, and;

(c) the intended start location, and;

(d) the intended destination, and;

(e) the anticipated duration of the travel.

Within Yard Limits, track vehicles must travel under the authority and direction of the competent worker in charge of the location.

Within the limits of a Local Possession, track vehicles must travel under the authority and direction of the Possession Coordinator.

Within the limits of a Track Occupancy Authority or Track Work Authority, track vehicles must travel under the authority and direction of the Worksite Protection Officer.

3. TRAVELLING THROUGH SECTIONS

As necessary during travel, the Competent Worker in charge of the movement must:

(a) report to, and comply with instructions from the Train Controller, and;

(b) tell other track vehicle operators in the convoy about conditions relating to the movement, and;

(c) tell the Train Controller when the Limits of Authority have been cleared, and;

(d) make sure that points are set correctly and secured for the movements, and;

(e) make sure that points are restored to their normal setting following travel over them.

A track vehicle travelling as a train under the authority of a Proceed Authority, must not set back without the permission of the Train Controller.

3.1 Travelling in Convoy

Track vehicles travelling in convoy must travel as closely as is safely practicable, taking into account track, environmental and communications conditions.

If communication between track vehicles is not available, track vehicle operators must travel:

(a) within sighting distance of the vehicle ahead and behind, and;

(b) at a speed that will allow the track vehicle to stop within half the sighting distance.

A convoy must close up:

(c) if the leading vehicle stops, and;

(d) before entering a section, and;

(e) before travelling over an active control level crossing.

Fixed signal aspects or hand signals displayed to the first vehicle apply to all track vehicles in the convoy.

3.2 Travelling into or through Work on Track Authority Limits

A track vehicle:

(a) may travel up to the limits of a Local Possession, a Track Occupancy Authority, or a Track Work Authority, as authorised by the Train Controller, and;

(b) must not enter the limits of a Local Possession, a Track Occupancy Authority, or a Track Work Authority without the permission of the Possession Coordinator, for a Local Possession, or the Worksite Protection Officer for a Track Occupancy Authority, or a Track Work Authority, and;

(c) must be piloted by, or travel as directed by the Possession Coordinator, for a Local Possession, or the Worksite Protection Officer, for a Track Occupancy Authority, or a Track Work Authority, within the Local Possession, Track Occupancy Authority, or Track Work Authority limits, and;

(d) must not depart the limits of a Local Possession, a Track Occupancy Authority, or a Track Work Authority without possession of an appropriate Authority, issued by the Train Controller.

3.3 Travelling behind Train Movements

A track vehicle may travel closely behind a train for purposes such as providing a fire patrol.

So far as reasonably practicable, the crew of the train to be followed must show the operator of the track vehicle, the Authority held by the train, before departure.

A track vehicle must not be authorised to travel behind a train which is authorised to travel by a Work Authority, and is authorised to set back within a Section.

WARNING!	*The sighting of a Proceed Authority issued to a train does NOT provide the authority for a Track Vehicle Movement to follow that train.*

A track vehicle travelling behind a train must do so on the authority of a Track Occupancy Authority, which must also include:

(a) the identification details of the train to be followed, and;

(b) the details of any other rail traffic movements that may be encountered en-route, and;

(c) details of any anticipated stops that the train will make.

A track vehicle travelling closely behind a train must:

(d) where visibility is limited, travel at restricted speed, and;

(e) where visibility is clear, travel at a speed that allows it to stop within half the distance of clear line that is visible ahead, and;

(f) outside of Yard Limits, travel no closer than 800 m behind the preceding train, and;

(g) within Yard Limits, close up to within clear sighting distance of the preceding train, and;

(h) following the passage of the train over level crossings, await a sufficient time to allow road traffic to clear, before proceeding.

3.4 Travelling over Level Crossings

Track vehicles travelling towards level crossings must:

(a) slow approaching the level crossing in order to be able to stop before the level crossing if necessary, and;

(b) not proceed over the level crossing unless it is clearly safe to do so.

NOTE	*At a level crossing provided with Active Level Crossing Protection equipment, it may be necessary to operate this for the passage of Track Vehicles over the crossing.*

4. SECURING TRACK VEHICLES

Track vehicles must be secured against unauthorised operation or unintended movement at all times.

Stationary or unattended track vehicles within a worksite, must be chained or clamped to the rail to prevent unintended or uncontrolled movement.

4.1 Stabling Track Vehicles on Running Lines

Track vehicles may be stabled on running lines only when the affected portion of track is within the limits of a Local Possession.

Track vehicles stabled on running lines must be:

(c) secured against unintended movement, and;

(d) removed as soon as possible.

4.2 Stabling Track Vehicles on other than Running Lines

Track vehicles stabled on lines other than running lines must be:

(e) clear of the Running Line, and;

(f) secured against unintended movement, and;

(g) if stabled in a siding, be inside derail devices or;

(h) if stabled on take-off rails, with the take off sloping away from the running line.

END OF SECTION 18

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 19

Managing Level Crossings

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Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with the management of Level Crossings on Heritage Railways in South Australia.

2. GENERAL

Level crossings are provided to allow access across the rail corridor, by road vehicles or pedestrians.

Some road level crossings are provided with active control warning equipment, operated by the approach of rail traffic.

Most road and pedestrian level crossings are not provided with active-control warning equipment.

If faulty active-control level crossing equipment is detected, it must be immediately reported to the Train Controller.

3. TESTING ACTIVE CONTROL LEVEL CROSSING EQUIPMENT

Active-control road and pedestrian level crossing warning equipment must be periodically tested by authorised on-site testers.

The warning equipment must be tested only at a time when all of the equipment at a level crossing is capable of being operated.

A permanent record must be made of the periodical test results.

3.1 Periodic On-site Testing

Unless periodic testing is suspended, warning equipment that is tested on-site must be tested according to the relevant specified intervals.

Periodical testing may be suspended only on the authority of the appointed Signals Maintenance representative for the railway.

If periodical testing is suspended, the Signals Maintenance representative must provide written advice to the Operations Manager and the Train Controller.

The Train Controller must treat the level crossing as potentially faulty, and arrange for safety measures to be put in place, if:

(a) the level crossing has not been tested within the railway's specified test interval period, or;

(b) rail traffic has not operated over the level crossing within 14 days, or

(c) if advised that periodical testing has been suspended.

3.2 Authorising testing

The on-site Signals Maintenance representative must liaise with the Train Controller before each test is done.

NOTE	*Heritage Railway personnel must not perform the testing of active level crossings on ARTC Joint Corridor level crossings.*

Before authorising a level crossing to be tested, the Train Controller must make sure that there is no rail traffic closely approaching the level crossing.

3.3 Extended Operation of Active Control Level Crossings

If rail traffic is stopped on the controlling track-circuit of an active control level crossing, rail traffic crews must promptly tell the Train Controller if the rail traffic:

(a) will be delayed for an extended time or;

(b) is disabled, and cannot be moved.

If necessary, the Train Controller must arrange for the control of road and pedestrian traffic to be performed by:

(c) emergency services, or;

(d) accredited road traffic management personnel, or;

(e) road traffic authority representatives.

If necessary, the Train Controller may arrange for a Signals Maintenance Representative to temporarily isolate the active level crossing equipment.

NOTE	*The Train Controller must liaise with the ARTC Network Controller about extended operation of active level crossings in the Joint Corridor.*

4. FAULTY ACTIVE CONTROL LEVEL CROSSINGS

4.1 Unreported Faulty Active Level Crossing

If a rail traffic crew becomes aware, or suspects that active level crossing warning equipment may not be operating normally for the passage of rail traffic, the rail traffic crew must:

(a) make an urgent attempt to stop the rail traffic before it occupies the level crossing, and;

(b) if unable to stop short of the level crossing, urgently arrange for protection to be provided, and;

(c) report the circumstances to the Train Controller, and;

(d) proceed over the level crossing only if it is safe to do so.

4.2 Reported Faulty Active Level Crossing

If made aware that an active control level crossing is faulty, or is potentially faulty, the Train Controller must:

(a) urgently warn approaching rail traffic crews, and;

(b) arrange, if necessary, for a Crossing Keeper to manage rail traffic movements, and;

(c) arrange, if necessary, for road traffic to be managed by:

  (i) emergency services, or;

  (ii) accredited road traffic management personnel, or;

  (iii) road traffic authority representatives, and;

(d) arrange for a Signals Maintenance representative to attend, and;

(e) make a permanent record about the details.

4.2.1 Rail Traffic Crew Actions

If the active-control level crossing warning equipment is not operating correctly or a Crossing Keeper is not in attendance, the rail traffic crew must:

(a) stop short of the level crossing, and;

(b) manually operate the level crossing if possible, or;

(c) arrange to protect the level crossing from approaching road and pedestrian traffic, and;

(d) proceed over the level crossing only if it is safe to do so.

The rail traffic crew must report the status of the level crossing warning equipment to the Train Controller as soon as possible.

When warned about a potentially faulty level crossing, rail traffic crews must:

(e) approach the faulty or potentially faulty level crossing at Restricted Speed, and;

(f) make sure that;

(i) the level crossing warning equipment is operating correctly or;

(ii) a Crossing Keeper is in attendance.

If active-control level crossing warning equipment is operating correctly, the rail traffic crew may proceed normally.

If a Crossing Keeper is in attendance, the rail traffic crew must follow the Crossing Keepers directions.

5. RAIL TRAFFIC THAT MAY NOT ACTIVATE TRACK-CIRCUITS

If rail traffic needs to use an active control level crossing operated automatically by track-circuits, but the rail traffic cannot be relied upon to activate the track-circuits, rail traffic crews must:

(a) stop short of the level crossing, and;

(b) manually operate the level crossing if possible, or;

(c) arrange to protect the level crossing and stop approaching road and pedestrian traffic, and;

(d) proceed over the level crossing only if it is safe to do so.

Track-circuit shorting cables must not be used to activate level crossing warning equipment.

6. ISOLATING ACTIVE-CONTROL LEVEL CROSSING EQUIPMENT

WARNING!	*Only a Signals Maintenance representative or other competent worker approved by a Signals Maintenance representative may isolate active-control level crossing equipment.*

6.1 Formal Advice of Active Control Level Crossing Equipment Isolation

If active-control level crossing equipment is unreliable, is operating continuously, or must otherwise be isolated to allow work to be performed, a Signals Maintenance representative must formally advise the Train Controller that the active-control level crossing equipment will be isolated.

NOTE	*Where used, an Infrastructure Change Advice form must be compiled, to formally advise the Train Controller that the active control level crossing warning equipment has been temporarily decommissioned.*

WARNING!	*Active level crossing warning equipment must not be isolated until the Train Controller has confirmed that no rail traffic is closely approaching.*

If told that active-control level crossing warning equipment will be isolated and temporarily decommissioned, the Train Controller must:

(a) if required, arrange for a crossing Keeper to attend, and;

(b) tell affected rail traffic crews, and;

(c) make a permanent record of the details.

6.2 Manually Protecting an Active Control Level Crossing

If possible, active-control level crossing warning equipment that has been isolated to allow work to be carried out on it, must be reinstated in sufficient time to allow rail traffic to approach and pass over the level crossing safely.

If the active-control level crossing equipment cannot be operated at all, a Crossing Keeper must manually protect the level crossing for the passage of trains.

6.3 Resuming Normal Operation

If told that active-control level crossing warning equipment has been repaired, tested and is working correctly, the Train Controller must:

(a) tell competent workers that normal working can be resumed, and;

(b) if necessary, tell rail traffic crews, and;

(c) make a permanent record of the details.

NOTE	*Where used, an Infrastructure Change Advice form must be compiled, to formally advise the Train Controller that the active control level crossing warning equipment has been recommissioned.*

7. MANUALLY PROTECTING A LEVEL CROSSING

A Competent Worker may be appointed as a Crossing Keeper to protect road, pedestrian and rail traffic over an active control level crossing that may be faulty, or has been decommissioned, or if necessary, a passive control level crossing.

Road and pedestrian traffic must be stopped in sufficient time to allow rail traffic to approach and pass over the level crossing safely.

NOTE	*Road traffic STOP signs must be in place, or warning equipment must have operated for a minimum of 30 seconds before rail traffic occupies the level crossing.*

Crossing Keepers must liaise with, and work under the direction of the Train Controller.

If the facility is available, and it is possible to do so, active control level crossing equipment must be activated manually for the passage of rail traffic.

WARNING!	*Crossing Keepers must not manage the passage of road traffic over a level crossing at which warning equipment is operating.*

7.1 Crossing Keeper's Responsibilities

A Crossing Keeper's primary duty is to maintain the safe separation of road or pedestrian traffic and rail traffic at a level crossing.

Whilst acting as a Crossing Keeper, a competent worker must be satisfied that other work will not interfere with level crossing protection duties

A Crossing Keeper must:

(a) liaise with the Train Controller about rail traffic requirements, and;

(b) stop road or pedestrian traffic in sufficient time to avoid delays to rail traffic, and;

(c) advise rail traffic crews by display of a hand signal or other means, that the level crossing is safe, and;

(d) not open a level crossing for road or pedestrian traffic unless certain that no other rail traffic is approaching, and;

(e) not permit the passage of road or pedestrian traffic over an active controlled level crossing is the level crossing equipment is operating, and;

(f) not leave the level crossing unless authorised to do so by the Train Controller, and;

(g) wherever possible, obtain details of vehicles when the Crossing Keepers lawful directions are disregarded, and tell the Train Controller these details.

7.2 Equipment

A Crossing Keeper must be provided with:

(a) distinctly identifiable high visibility clothing, and;

(b) equipment to enable communications with the Train Controller, and;

(c) RED and GREEN flags and lights for providing hand signals to rail traffic crews, and;

(d) wherever possible, equipment to enable communications with rail traffic, and;

(e) a hand held STOP sign and RED light to stop road or pedestrian traffic, and;

(f) if necessary, STOP AHEAD and STOP signs, to stop rail traffic.

7.3 Using Multiple Workers

If one lone Crossing Keeper cannot safely protect a level crossing, additional Competent Workers must assist the Crossing Keeper.

The appointed Crossing Keeper must be the only person to:

(a) liaise with the Train Controller, and;

(b) authorise rail traffic crews to proceed over the crossing.

The Crossing Keeper must tell the assisting Competent Workers about details of rail traffic requirements, and when to provide or remove level crossing protection.

Competent Workers assisting the Crossing Keeper must act on the Crossing Keepers instructions.

7.4 Over-dimensional Loads

If deemed necessary, a Crossing Keeper may be appointed to manage the passage of a road-borne over-dimensional load over a level crossing.

The over-dimensional load must:

(a) be duly authorised for travel, and;

(b) not infringe on rail infrastructure, and;

(c) be prevented from entering the level crossing until the Train Controller has permitted the movement.

The Crossing Keeper must tell the Train Controller when the over-dimensional load is clear of the level crossing.

END OF SECTION 19

Heritage Railways of South Australia

Railway Safeworking Rules

Section 20

Shunting

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules associated with shunting rail vehicles on Heritage Railways in South Australia.

2. GENERAL

Shunting is moving rail traffic at low speeds to:

(a) arrange or rearrange vehicle order in a consist, or;

(b) attach or detach vehicles from a consist, or;

(c) move vehicles to or from running lines for other than through-movements, or;

(d) move vehicles in a yard or terminal for other than through movements.

When performing shunting operations, rail traffic must only be moved with the authority of the Competent Worker directing the shunting operations (the Shunter).

Shunting must be performed with care to prevent damage to vehicles, personnel or infrastructure.

Adequate braking capacity must be utilised to maintain the safety of shunt movements.

3. PLANNING SHUNTING

When planning shunting, Shunters must:

(a) confer with the rail traffic crew and other Competent Workers before starting the work and agree about planned movements, and;

(b) ensure that workers involved in shunting have adequate locality knowledge, and;

(c) warn workers of hazards presented by narrow track clearances, and;

(d) if necessary, arrange for clearance of fixed signals, and;

(e) make sure that routes are correctly set and safe for movements, and;

(f) make sure that it is safe to shunt, and;

(g) make sure that workers have been warned about the intended shunting.

Workers not involved in shunting must stay clear of moving vehicles.

4. DIRECTING SHUNTING

Rail traffic crews and Shunters must communicate at agreed intervals.

If communication between a Shunter and the rail traffic crew is interrupted, the crew must stop the movement immediately.

A Shunter must:

(a) use radio, hand or light signals to communicate effectively with the motive power unit driver, and;

(b) be in a position where the safe progress of the movement and the line ahead can be seen, and;

(c) closely accompany or ride in a safe position, in or on the leading vehicle.

4.1 Change of Communication Method

If a worker directing shunting needs to change the method of communication of shunting directions from:

(a) use of a communications device to hand signals, or;

(b) use of hand signals to a communications device.

The worker directing shunting must;

(c) make sure that all workers involved in the shunt are aware of the change of method of directing shunting, and;

(d) if necessary, stop the movement, to ensure this.

4.2 Riding on Vehicles

Workers must not ride on any rail vehicle, when:

(a) foul of the gauge outline of the rail vehicle, or;

(b) standing on equipment such as couplings, hand brakes, hand rails or end steps.

Workers may ride:

(c) completely within passenger compartments, or;

(d) completely within a Brakevan, or;

(e) in a position where seating is provided for the purpose, or;

(f) within the cab of a track vehicle or locomotive, or;

(g) on a carriage or locomotive end platform, or platform access steps, if within the gauge outline, and a handrail is provided.

4.3 Boarding or Alighting from Vehicles

Workers must not attempt to:

(a) board a moving vehicle, or;

(b) alight from a moving vehicle except to avoid a possible life-threatening emergency.

4.4 Shunting over points

The Shunter must be responsible for ensuring that points are set and secured for the intended route.

4.5 Shunting towards dead ends, vehicles, stop signs, gates, doors or obstructions.

The Shunter must stop the movement at least 5 metres prior to reaching:

(a) a dead end with which contact is to be made or;

(b) standing vehicles to which the movement is to be coupled, or;

(c) a standing vehicle to which a red flag or stop sign is attached, or;

(d) any red flag or stop sign, or;

(e) any gate, door or obstruction.

5. SHUNTING OVER LEVEL CROSSINGS

A shunting movement over a level crossing must:

(a) be directed by a Competent Worker, and;

(b) not proceed unless the crossing is clear, or road and pedestrian traffic has been stopped.

Where necessary, shunting movements approaching level crossings must stop before passing over a level crossing.

Where provided, active control level crossing equipment must be operated.

Shunted vehicles hauled or propelled across a level crossing must be equipped with an operating continuous airbrake.

Shunted vehicles must not be left detached on level crossings, or on activation circuits for level crossing protection equipment.

The duration of occupation of a level crossing must be minimised, and the level crossing must be cleared as frequently as possible to allow free passage of road traffic.

6. SHUNTING METHODS

6.1 Loose Shunting

Loose shunting is the propelling of rail vehicles by a motive power unit, before they are uncoupled, and allowed to roll freely.

Rail vehicles must not be loose shunted.

6.2 Shunting Under Power

Shunting under power is the movement of vehicles where an attached motive power unit controls movement and braking of rail vehicles.

Rollingstock such as passenger carriages and freight vehicles must be shunted under power.

6.3 Hand Shunting

Only light to medium weight track vehicles may be shunted by hand outside of a workshop.

Rollingstock may be shunted by hand within workshops, but only for minimal distances.

7. COUPLING AND UNCOUPLING VEHICLES

7.1 Coupling Vehicles

Stationary vehicles must be secured against movement when being coupled.

Rail vehicles must be coupled together using minimal impact forces.

After attaching motive power to stationary vehicles, or coupling vehicles together, the rail traffic crew must test the coupling where necessary, and pressurise the brake pipe before releasing hand brakes.

7.2 Uncoupling Vehicles

Rail vehicles must not be detached from a motive power unit, or a continuous brake system, until they are secured against unintended movement by the use of sufficient effective handbrakes or other devices.

Detached vehicles must be secured:

(a) clear of adjacent lines, and;

(b) clear of level crossings and active protection equipment circuits, and;

(c) when possible, by more than a single device, and;

(d) where possible inside derail devices provided to prevent vehicles entering running lines.

Before vehicles are physically separated, the Shunter must:

(e) uncouple by hand, and correctly stow, air brake hoses between vehicles, and;

(f) uncouple and stow cables and other equipment coupled between vehicles.

8. VEHICLES UNDER REPAIR

Vehicles with red warning flags, “Do Not Move” tags, signs or lights must not be moved, be shunted against or have other vehicles attached to them unless:

(a) the red warning flag, “Do Not Move” tags, sign or lights are first removed by the workers who put them there, and;

(b) no work is being done on or near the vehicles, and;

(c) it is safe to move the vehicles.

9. SHUNTING AND STABLING RAIL TRAFFIC ON RUNNING LINES

9.1 Shunting on Running Lines

Shunting on running lines must be authorised by the Train Controller.

On running lines, vehicles being shunted must be equipped with an operating continuous airbrake.

The Train Controller must be told when shunting movements on running lines have been completed.

9.2 Stabling Rail Traffic On Running Lines

Rail traffic may be stabled on running lines only if:

(a) it has been authorised by the Train Controller, and;

(b) it has been advertised by a Network Notice, when required, and;

(c) unauthorised access to motive power controls is prevented, and;

(d) it is secured against unintended movement.

If the rail traffic is stabled on the main line within a section, the rail traffic must be considered to be an obstruction and protected as such.

NOTE	*Refer to Section 16 - “Protecting Obstructions”*

9.3 Stabling within Yard Limits at crossing locations

Where possible, rail traffic and rail vehicles must be stabled on a siding within yard limits and between protective derail devices.

If it is necessary to stable rail traffic or rail vehicles on a running line within yard limits at a crossing location, points must be set to divert other rail traffic around the stabled rail traffic and secured to prevent their unauthorised operation.

9.4 In sidings and depots

When shunting within sidings or depots, shunting may be performed without an operating continuous brake, but only where safe to do so.

Vehicles stabled within sidings and depots must be secured against movement.

10. RESTORING EQUIPMENT

After completion of shunting at a block location, a Competent Worker must restore points, signals, derails and other equipment to their normal positions.

Points must be restored and where possible, locked, to protect running lines and standing rail vehicles.

The Competent Worker must tell the Train Controller when main line points have been restored and locked.

END OF SECTION 20

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Heritage Railways of South Australia

Railway Safeworking Rules

Section 21

Managing Changes to Network Configuration

Document – HRSA-RSR-2020

Issue 1.0

Effective from 0001 hours, Sunday December 6, 2020

(or as otherwise advised)

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1. PURPOSE OF THIS SECTION

It is the purpose of this section to prescribe the rules for the management of information about changes to Network track infrastructure, or track related safety equipment, that may have an immediate effect of rail safety or rail operations on Heritage Railways in South Australia.

NOTE	*"Changes to Network infrastructure" does not include regular maintenance, or like-for-like component replacement of existing infrastructure, unless the equipment is safety critical level crossing warning equipment or safety critical signalling equipment.*

2. GENERAL

If work activities result in a change to the layout of Network track infrastructure, or track-related safety equipment, the maintenance worker responsible for authorising and facilitating the work, must make sure that it is documented and advertised.

Work that constitutes changes to network layout includes, but is not limited to:

(a) installation of new tracks, or;

(b) removal of existing tracks, or;

(c) installation of new points, derails, catchpoints or similar infrastructure, or;

(d) removal from service of points derails, catchpoints or similar infrastructure, or;

(e) installation of new signalling or level crossing equipment, or;

(f) decommissioning of existing signal or level crossing equipment, or;

(g) work that prevents the use of existing track infrastructure, or;

(h) erection of new structures that may , or;

(i) removal of existing structures, or;

(j) any other item of infrastructure that may affect the safety or operation of the Network.

The Infrastructure Change Advice (ICA) form must be used to ensure that the details of changes to the Network layout are made known to all workers on the Network.

Maintenance Representatives must use an ICA form to formally and accurately advise the Train Controller of Network changes, so that in turn, the Train Controller may immediately advise affected workers of the change.

An ICA form must be used until advice of the change is published in documentation such as working Time Tables, Appendices, or other Network information documents.

Wherever possible, the responsible maintenance worker must compile the ICA form before any infrastructure or equipment is de-commissioned or commissioned.

Each ICA form must be uniquely identified by a reference number, allocated by the infrastructure maintenance manager for the railway.

This includes the temporary or permanent installation or removal of infrastructure, the booking of safety critical equipment into or out of use,

3. USE OF INFRASTRUCTURE CONFIGURATION ADVICE FORM

3.1 Requirement for use

The ICA form must be used to formally advise the Train Controller, and in turn, affected workers, of changes to the Network that may affect Network safety or operations.

The ICA form is not required, if the Train Controller and other workers have been formally advised of the intended change, prior to the change occurring, via a formal Network Notice.

3.2 Responsible Maintenance Worker

The responsible maintenance worker must use an ICA form to record the details of the work that will result in infrastructure or equipment that is being:

(a) temporarily de-commissioned, or;

(b) permanently de-commissioned and removed, or;

(c) newly commissioned, or;

(d) recommissioned for use.

The responsible maintenance worker must:

(e) provide a completed copy of the ICA form to the Train Controller, or;

(f) jointly compile an ICA form with the Train Controller.

In either case, the responsible maintenance worker must speak with the Train Controller and verify that the details are correctly understood.

The responsible maintenance worker must provide, or show a copy of the ICA form to the workers responsible for carrying out that work that will change the Network configuration:

(g) for work associated with a Local Possession, to the Possession Coordinator, or

(h) for work associated with a TOA or TWA, to the Protection Officer.

The responsible maintenance worker must keep completed ICA forms as an auditable record of the work performed and of the of the change advice provided to Network configuration.

3.3 Train Controller

Unless it is has been advertised by a Network Notice, the Train Controller must use the information provided by an ICA form to tell workers on the network, about changes to Network infrastructure that has been:

(a) temporarily de-commissioned, or;

(b) permanently de-commissioned and removed, or;

(c) newly commissioned, or;

(d) recommissioned for use.

NOTE	*Where advice of a network configuration change will be advertised by a Network Notice, the Train Controller must provide a copy of the ICA form to the person responsible for the production of Network Notices.*

Changes to Network configuration must be recorded in the Train Controllers log, or on the Train Control graph, until such time as a Network Notice is published, advertising the details of the change.

The Train Controller must keep completed ICA forms as an auditable record of the work performed and of the advice provided of the change to Network configuration.

4. TELLING WORKERS ON THE NETWORK

Unless changes have been advertised by a Network Notice, the Train Controller must tell workers on the network about changes to network infrastructure.

The Train Controller must provide advice of infrastructure changes to workers on the Network either:

(a) in written form;

  (i) included within a Train Order, or Track Work Form, or;

  (ii) via any other official document used by the railway for the purpose;

(b) or verbally.

In either case, the Train Controller must verify that workers on the Network correctly understand the changes to Network infrastructure configuration.

5. SECURING INFRASTRUCTURE

Infrastructure that is not yet commissioned, or has been decommissioned but not yet removed, must be secured to prevent its unauthorised use.

The responsible maintenance worker must ensure that rail vehicle access to such infrastructure, or the operation of equipment is prevented by physical restraints such as points clamps, unique maintenance locks, signs, out of order tags or other means.

6. RECORDING AN INFRASTRUCTURE CONFIGURATION ADVICE FORM

6.1 Maintenance Representative

On the Infrastructure Configuration Advice form, record:

(a) details about the location of the infrastructure and the affected line, and;

(b) if the infrastructure change will result in:

  (i) existing infrastructure booked temporarily out of use, or;

  (ii) existing infrastructure permanently removed, or;

  (iii) existing infrastructure booked back into use, or;

  (iv) new infrastructure installed, and;

  (v) an infrastructure change that will be in effect for in excess of seven (7) days duration.

(c) the specific identification details of the infrastructure to be changed, and;

(d) the time and date that the ICA form was compiled, and

(e) the name of the responsible maintenance representative, and;

(f) the time at which the details were verified by the Train Controller, and;

(g) the name of the Train Controller.

6.2 Train Controller

If the Infrastructure Configuration Advice form is being jointly compiled with the responsible maintenance worker, on the Infrastructure Change Advice form:

(a) record details about the changed infrastructure as provided by the responsible maintenance worker, and;

(b) record the time and date that the ICA form was compiled, and

(c) record the name of the responsible maintenance representative, and;

(d) record the time at which the details were verified by the Train Controller, and;

(e) record the name of the Train Controller.

If a partly completed ICA is provided by the responsible maintenance worker, the Train Controller must verify an understanding of the contents of the ICA form with the responsible maintenance worker, and record;

(f) record the time at which the details were verified by the Train Controller, and;

(g) record the name of the Train Controller.

7. RECORD OF PERMANENT OR LONG-TERM CHANGE

If the changes to Network infrastructure configuration will remain in place for a period of more than seven (7) days:

(i) the changes must be advertised in a Network Notice, and

(ii) the Train Controller must provide a copy of the ICA form to the person responsible for the production of Network Notices.

Once a Network Notice detailing the change has been issued, the Train Controller is not required to provide advice to workers on the network about these changes.

If the changes to Network infrastructure configuration are permanent, and will be in place for in excess of 12 months, the changes must be included in a Network document such as a Working Timetable, Network Configuration diagram, or other appropriate document.

8. INFRASTRUCTURE CONFIGURATION ADVICE FORM

Example:

Heritage Railways of South Australia

Infrastructure Change Advice Form

Advice form for changes to Network infrastructure or equipment

1 ICA Identification Number: ICA ##/YY Date: DD MM YYYY

2 Location: Exact Location – Station Name

Between: (Station, Track, Kilometre ID etc) and (Station, Track, Kilometre ID etc)

Tracks affected: (Track – Main Line, Crossing Loop, Goods Siding, Triangle, etc)

3 The following equipment will be affected by work to be carried out at the above location:

Reference / Plant Number	Equipment Description	Supporting Documents
Number	Infrastructure Equipment Details	Reference
Number	Infrastructure Equipment Details	Reference
Number	Infrastructure Equipment Details	Reference
Number	Infrastructure Equipment Details	Reference
Number	Infrastructure Equipment Details	Reference

4 Confirmation of Infrastructure removed from service:

OUT OF SERVICE

The infrastructure or equipment detailed in Section 3 above is:

TEMPORARILY removed from service: Tick or Cross PERMANENTLY removed from service: Tick or Cross

(for an anticipated duration of): Anticipated Duration

Advised by Responsible Maintenance Worker: Print Name Time DD MM YYYY

Verified by Train Controller: Print Name Time DD MM YYYY

5 Confirmation of Infrastructure introduced to service:

INTO SERVICE

The infrastructure or equipment detailed in Section 3 above is:

RECOMMISSIONED and returned to service: Tick or Cross NEWLY COMMISSIONED and introduced for service: Tick or Cross

Advised by Responsible Maintenance Worker: Print Name Time DD MM YYYY

Verified by Train Controller: Print Name Time DD MM YYYY

6 Request for issue of Network Notice:

NOTICE

The infrastructure or equipment detailed in Section 3 above is subject to a change of status, exceeding 7 days:

Publication of a Network Notice is required: Tick

Train Controller: Print Name Time DD MM YYYY

END OF SECTION 21

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