CODE OF PRACTICE

FOR

OPERATIONS & SAFEWORKING

NETWORK INTERFACE

CO-ORDINATION PLAN

DOCUMENT No. TA02

Issue 2.3

30 June 2004

DOCUMENT UNCONTROLLED WHEN PRINTED

Shaded Sections of this Document have been superseded by content in the ARTC ROUTE ACCESS STANDARD

DOCUMENT CONTROL

1. Document Status Record

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Issue 2.2 Issue 2.3	30/6/03 30/6/04	Network Standards Manager RDG ---------- 30/6/04

2. Document Distribution List

Controlled Copy Number	Position	Organisation
1	Safety Compliance Manager	ARTC

3. Document TA02 main document and appendices - Record of Status

Document	DETAIL	Issue Number 27 Mar 2001	Issue Number 30 June 2003	Issue Number 30 June 2004	
Main	52 pages +	2.1	2.2	**2.3**	
I	Permanent speeds	2.1	2.2	**2.3**	
II	Network overview	2	2.1	**2.2**	
III	Curve data	2	2.1	**Now via E & I update process**	
IV	Line segment lengths	2		**2.1**	
V	Protected level crossings	2	2.1	**2.2**	
VI	Bridges and structures	2		**2.1**	
VII	Reversing triangles	2		**2.1**	
VIII	Turntables	2		**2.1**	
IX	Safeworking locks	2			
X	Radios and comms devices	2		**2.1**	
XI	Structure clearances	2			
XII	TBA	2			
XIII	Grades	2			
XIV	Notices	2			

SCHEDULE OF AMENDMENTS

Number	Page or Clause	Summary of Amendments	Date Issued
Issue 2.1	Main doc.- Page iv – appendix 1	Permanent speeds – Dry Creek to Outer Harbour added	27/03/01
Issue 2.1	Main doc- Page 14 & 15 – 6.2 & 6.3	ABS is in force between Tottenham and Newport	27/03/01
Issue 2.1	Main doc - Page 28 – 14.1	Mile end to Tailem Bend 5000 t trailing loads – (behind any locomotive set)	27/03/01
Issue 2.1	Main doc - Page 39 - 21	Additional note in 1st paragraph re special circumstances added	27/03/01
Issue 2.1	Appendix - Page i and new page 11	Dry Creek to Outer Harbour Permanent speed restrictions added	27/03/01
Issue 2.2	Main Doc	All relevant and current train notices incorporated. – refer below	30/06/03
Issue 2.2	Appendix I Permanent Speeds	All permanent speed changes promulagated via Train Notice since last issue now incorporated – refer App I	30/06/03
Issue 2.2	Appendix II – Interstate Network Overview	All diagrams, layout changes and loop lengths promulgated since last issue incorporated – refer Appendix II	30/06/03
Issue 2.2	Appendix V Protected Level Crossings	All new crossings that have been upgraded and promulgated via Train Notices since last issue incorporated – refer Appendix V	30/06/03
Issue 2.2	Main Doc	Changes as listed below:	30/06/03
Issue 2.2	Section 11	Temporary Speed Restriction board standards on the former Commonwealth Network – section 11.7 added – TN 68/2003	30/06/03
Issue 2.2	Section 13	In gauge height Melb /Albury increased. - TN 69/2003 –	30/06/03
Issue 2.2	Section 13.1	In gauge Crystal Brook to Broken Hill line clearances increased - TN 1109/2002	30/06/03
Issue 2.2	Section 1 and Section 3	Alice Springs no longer owned by ARTC – train control, communication and access mgt only – section 1(a) - additional note re information pertaining to ASP line. Section 3 (a) - track on diagram shown dotted and note refer ASR for Safety Management - TN 789/2001	30/06/03

Number	Page or Clause	Summary of Amendments	Date Issued
Issue 2.2	Section 13	Maximum Speed on the Broken Hill line between Peterborough and Broken Hill - 110m/hr – TN 7/2002	30/06/03
Issue 2.2	Section 6.1	Maroona to Pyrenees now CTC - TN 780/2002	30/06/03
Issue 2.2	Section 23	Axle load limits applying to Outer Harbour Line - TN 282/2002	30/06/03
Issue 2.2	Sections 11.2, 11.8 & 23	Melbourne to Albury speed and Albury to Wolesley axle loads and TSR signage -- TN 2230/2001 & TN 2205/2001	30/06/03
Issue 2.2	Section 16 c	NOTE 2 : Fuelling pads at Parkeston added -- TN 1465/2001	30/6/03
Issue 2.2	Section 13	13.4 added – clearances for WA type grain hoppers Adelaide to Wolelsey only – TN 1112/2002	30/6/03
Issue 2.2	Section 6	Newport to Manor CTC – TN 77/2003	30/6/03
Issue 2.2	Section 6	Manor to Gheringhap CTC -- TN's 372/373/374/375/2003	30/6/03
Issue 2.2	Section 3	References to former Commonwealth Code of Practice documents deleted. New reference to NCOP -- TN 1055/2001.	30/6/03
Issue 2.2	Section 3.1.1	Reference to ARTC Code of practice , addendum and appendices included – TN 1080/2001	30/6/03
Issue 2.2	Section 13–13.1 & 13.5	Section 13.5 added , plus note in table 13.1 Adelaide to Melbourne clearances for RQDW/AQDW/VQDW type long bogie center wagons – TN1263/2001	30/6/03
Issue 2.2	Section 13.2	13.2 Trailer operations - extra note added to title -- Trailer Operations in ARTC Victoria	30/6/03
Issue 2.2	Section 33	Note re appendix IX and lock replacement Port Pire to Whyall via Port Augusta added -- TN 853/2001	30/6/03
Issue 2.3	Sect 1,3, 6, 10, 11, 12, 13, 15, 23 Append II, IV & X	References to ASP line removed – TN 811/2003 & 1424/2003 & TN 8/2004. ARTC no longer involved with line.	30/6/04
Issue 2.3	Section 6	Safeworking system overview section 6.1 updated incorporating sections 6.2, 6.3,and 6.4 - TN 142/2003 & 943/2003 & 1194/2003	30/6/04
Issue 2.3	Appendices I, II, IV, V,VI,, VII , VIII & X	Appendices as listed updated as per train notices listed inside amendment register for each Appendix.	30/06/04
Issue 2.3	Document control	Record of status of TA02 main document and appendices listed	30/06/04

Number	Page or Clause	Summary of Amendments	Date Issued

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0 NETWORK INTERFACE CO-ORDINATION PLAN

Network Interface Co-ordination Plan is to provide an overview of the ARTC network and guidelines and requirements for operators intending to use the network.

1 ARTC INFRASTRUCTURE NETWORK

a) Australian Rail Track Corporation (ARTC) is the Infrastructure Owner (ARTC) of the standard gauge railway from:

- Albury through Melbourne to Adelaide (Victorian territory leased from Victrack) and Kalgoorlie (with control to Parkeston)
- Dry Creek to Port Adelaide Junction
- Gillman Junction to Port Flat
- Glanville to Pelican Point
- Crystal Brook to Broken Hill
- Port Augusta to Whyalla

and management of Appleton Dock section on behalf of the Melbourne Ports Corporation, management of the Leigh Creek line on behalf of Freight Corp.

(Operators will require separate access arrangements with the owners of Appleton Dock sidings and the owners of the Leigh Creek line to enter the above respective areas.)

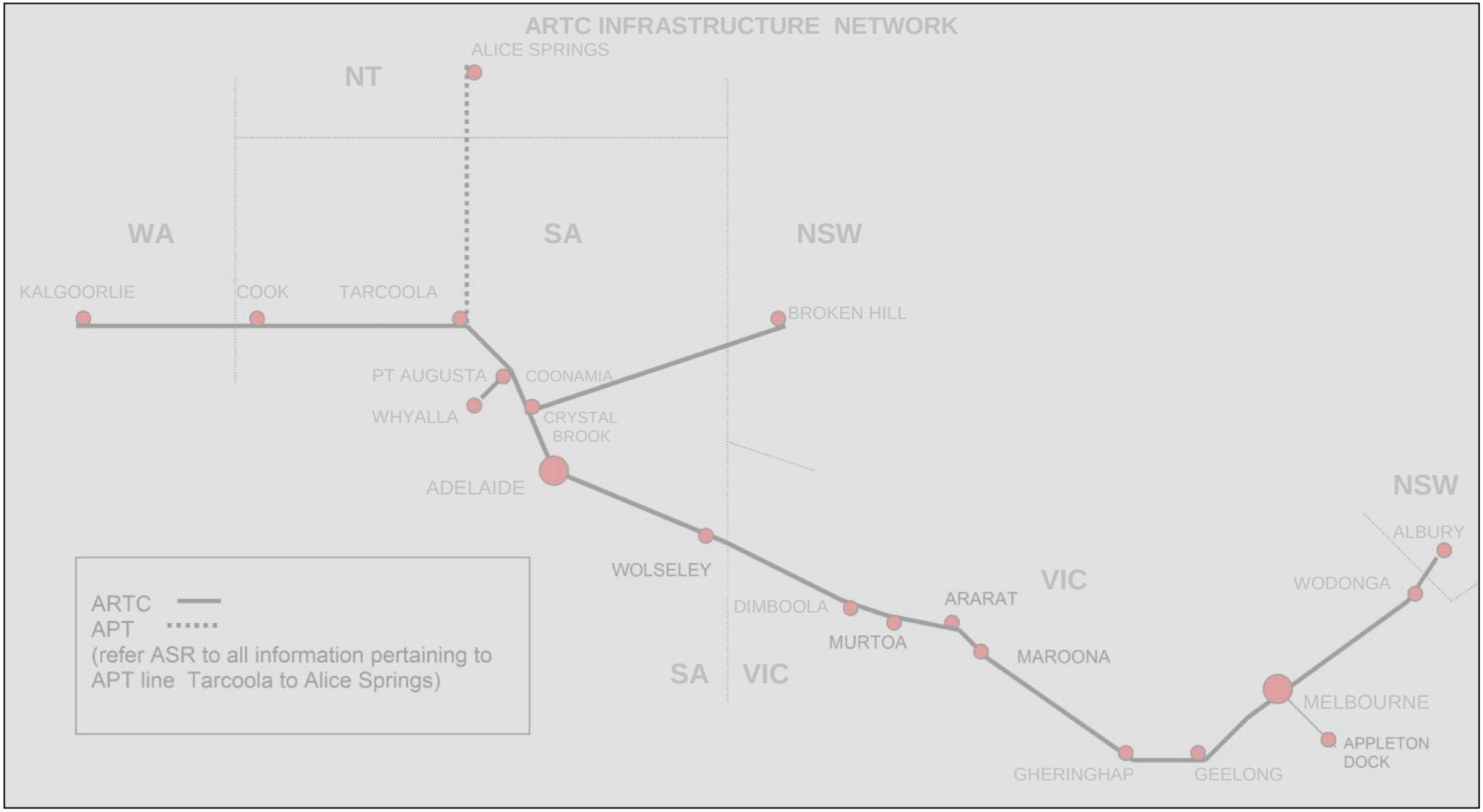
b) ARTC provides train control service for its track within South Australia, Western Australia (to Parkeston), the Northern Territory and from Cockburn to Broken Hill in NSW and Victoria for the interstate network.

c) The Network is depicted in the following diagram. Additional details of the Network are outlined in Appendix II.

1.1 *Temporary Closure of a Portion of a Track*

Where the Infrastructure Owner (ARTC) wishes to temporarily 'close' a portion of track, a train notice specifying the details of the closure shall be issued. The Infrastructure Owner (ARTC) shall issue a further train notice when the portion of track is again to be opened and shall specify any conditions that apply.

For details of notice distribution see Appendix XIV.



2 ACCESS AGREEMENTS (Interstate Mainline Network)

a) The Access Agreement is a document that specifies the terms and conditions of access to the network by the Train Operator.

b) Train schedules negotiated between the Infrastructure Owner (ARTC) and a Train Operator shall be identified in the Access Agreement as the time a train enters and exits the Network.

c) The Train Operator shall arrange and receive accreditation from the Department of Transport in the States of their intended operation before the train service can commence. Operators may seek accreditation in other states of operation through the mutual recognition arrangements.

d) Access Agreements shall identify each train as being within one of the following train classes:

- Super Premium class e.g. XPT
- Premium class e.g. Trailerail and passenger trains
- High class e.g. Superfreighters
- Standard class e.g. grain trains
- Low class, e.g. shunting
- or as agreed from time to time

e) Trains operating over the ARTC network will be allocated identification as follows:

(1) A number for each day of week – 1 Sun to 7 Sat
(2) A letter or number for departure station
(3) A letter or number for destination station
(4) A number denoting type of train
(5) A number or letter denoting the Train Operator

Note: For local/work train movements on ARTC Network Lines a NUMERICAL NUMBERING SYSTEM will apply.

3 NETWORK SAFEWORKING OPERATIONS

3.1.1 Safeworking Rules & Procedures

Safeworking Rules and Procedures describe the rules and procedures of operation on the Network. These Rules and Procedures are detailed in the Code of Practice for the Defined Interstate Network for the section Wolseley to Parkeston (including the Adelaide metro area standard and dual gauge), Crystal Brook to Broken Hill, Port Augusta to Whyalla. Rules and Procedures for the Victorian Network operations are contained in TA 20 - Victorian Network Operations, which incorporate the applicable sections of the 1994 PTC Book of Rules.

Additional important information is contained within the Code of Practice as follows:

- Major Emergency Response Plan (Document TA09)
- ARTC Incident Management Plan (Document TA44)

The ARTC website has the following documentation:

ARTC Code of Practice for the Defined Interstate Network

ARTC Addendum to the Code of Practice for the Defined Interstate Network

ARTC Appendix's as follows

- Appendix 1. General
- Appendix 5. Dimboola to Belair
- Appendix 6. Belair to Bolivar
- Appendix 7. Bolivar to Port Augusta and Whyalla
- Appendix 8. Gladstone to Kanadah
- Appendix 9. Tent Hill to Kalgoorlie

3.2 *Code of Practice for the defined Interstate Network*

3.2.1 Infrastructure Owner (ARTC) Provided Documents (ARTC)

The Infrastructure Owner (ARTC) shall make available via on line access relevant documents from the Code of Practice to the following Organisations:

- Train Operators operating trains on the Network
- Network Infrastructure Maintainers

The Infrastructure Owner (ARTC) may make available the Code of Practice to other Organisations at its discretion.

All Organisations accessing the ARTC Network must comply with the Code of Practice for the Defined Interstate Network and other related documents.

3.2.2 Code of Practice Document Control

It shall be the responsibility of each Organisation that has a requirement to provide a copy of the Code of Practice to any or all of its employees to ensure that these copies are provided and maintained as controlled documents.

When amendments are issued to the Code of Practice, ARTC shall ensure that advice is issued to all Operators and Maintainers advising of these changes so that each Operator and Maintainer can ensure that the required amendments are issued to those who require a copy of same.

An "amendments register" shall be maintained at the front of the Code of Practice to indicate amendments which have been issued and the date of issue. The amendment register may be used for audit purposes to ensure that the latest copy of the document is being used.

3.2.3 Code of Practice Document Audits

Each Organisation shall be responsible for arranging audits within their Organisation to ensure:

a) That Rail Safety Workers engaged by the Organisation shall use a Code of Practice that is current and complete with correct amendment pages inserted.

b) That all pages replaced by amendment pages, have been removed and destroyed.

c) That the Code of Practice issued to Rail Safety Workers (and contractors) terminating employment shall be returned to the Organisation.

d) Comply with the Rail Safety Accreditation requirements in each State in which they are operating.

3.3 Code of Practice Review

a) A Code of Practice Review Committee shall be responsible for:
- Periodic review of the Code of Practice for the areas to which it applies with the exception of TA02, which is the interface co-ordination plan.
- Amendments consideration

b) Each Organisation shall nominate a competent delegate authorised to participate in the Code of Practice Review process.

c) The Code of Practice Review Committee shall formally meet as required but no less than at six monthly intervals.

d) Each Organisation shall establish an internal process to recommend items to be included on the agenda of Code of Practice Review Committee Meetings. Each item recommended by Organisations shall clearly identify the change being sought, together with reasons and the proposed amended format of the change for consideration by the Review Committee.

e) The Infrastructure Owner (ARTC) shall schedule meetings, provide the secretariat and accept agenda items for inclusion up to four weeks prior to each meeting.

3.4 *Safeworking Forms*

a) Organisations shall arrange for a sufficient supply of Safeworking Forms to be carried on locomotives, track vehicles or machines for use by Rail Safety Workers.

b) Organisations shall establish their own procedures and facilities to ensure that all completed Safeworking Forms shall be submitted, collected and retained by the Organisation.

c) Organisations shall establish procedures for the internal auditing of Safeworking Forms and shall ensure Rail Safety Workers are correctly completing the forms in accordance with the Code of Practice.

d) Organisations shall hold ready all completed Safeworking Forms for a minimum of four weeks during which time the Infrastructure Owner (ARTC) may request them for further audit against train graphs, train controller's copy or voice recordings. Following that period the completed Safeworking Forms shall be archived by the Organisation for a period of at least seven years.

3.5 *Safeworking Equipment*

The Infrastructure Owner (ARTC) shall ensure that keys are available to Safeworking Equipment for all Operators and Maintainers at their cost. Operators and Maintainers shall ensure that an audited record is kept of all persons to whom keys have been issued and that they are returned to the Operator or Maintainer when that person is no longer engaged in duties for the Operator or Maintainer which require their issue.

The Infrastructure Owner (ARTC) shall detail the type of lock required to secure the various types of equipment – (Refer Appendix IX).

The provision of radios, both fixed and mobile, and fixed or mobile telephones shall be the responsibility of the Operator or Maintainer. (Refer Appendix X).

4 RAIL SAFETY WORKERS

4.1 *General*

Organisations shall put into place systems to ensure that workers engaged in activities affecting safety on the Network have:

a) The physical and mental fitness to do the work.
b) An adequate sense of responsibility to be entrusted with the work.
c) The necessary capacity, including communication, technical skills and knowledge, to perform the work.

4.2 *Worker Safeworking Competence*

Organisations shall establish and maintain procedures for the development and maintenance of worker competence, and for the provision of training for all work functions affecting railway safety in accordance with AS4292.1. The establishment of procedures shall take into account the following:

a) Workers required to be engaged in performing safety related work shall be accredited in relevant safeworking described in the Code of Practice.

b) Safeworking Retraining shall be provided for each Rail Safety Worker at specified intervals that ensure the ongoing competence of the Rail Safety Worker.

c) Organisations shall maintain relevant training records and ensure those records can be produced as evidence of Safeworking Training status when required.

d) A Rail Safety Worker not completing Safeworking Retraining within the specified period shall not be permitted to carry out any work functions affecting railway safety.

e) A Rail Safety Worker's accreditation shall cease to be recognised where the accreditation has been withdrawn or suspended in or by any rail jurisdiction.

f) Organisations shall maintain their own Rail Safety Worker competency records.

4.3 *Safeworking Trainer Accreditation*

(a) Accredited training should be provided for workers involved in the delivery of training and the assessment of competence for specified safety-related work. Accredited training means training which has been accredited as pertinent and adequate for the purpose by a National or State accrediting agency.

(b) Worker competence, qualification requirements and associated recognised training should be determined with reference to industry competency standards where endorsed by the Australian National Training Authority (ANTA).

(c) Workers involved in the delivery of training and/or the assessment of competence for specified safety-related work who are not accredited by ANTA shall make application to the Infrastructure Owner (ARTC) to be included on a register of authorised 'Code of Practice Safeworking Trainers'.

(d) The Infrastructure Owner (ARTC) shall assess the competence of applicants under sub-clause (c) and shall issue suitably qualified and experienced trainers with a certificate of accreditation specifying the sections of the Code of Practice for which the trainer is authorised to deliver training.

(e) Workers involved in the delivery of training and/or the assessment of competence for specified safety-related work who are accredited in accordance with sub-clause (a) are not required to be included on this register.

(f) Organisations proposing to utilise the services of trainers who have not been provided accredited training in accordance with sub-clause (a) shall first ensure that the proposed trainer/s have been authorised and registered by the Infrastructure Owner (ARTC).

(g) Training, retraining and/or competency assessment provided by workers not either accredited or authorised and registered in accordance with this clause shall not be recognised and workers trained, retrained or assessed by these workers shall not be recognised as accredited Rail Safety Workers.

4.4 *Health and Fitness - Medical Standards*

a) To reduce the avoidable risk to health and safety as far as possible for an Organisation's Rail Safety Workers, other Rail Safety Workers operating on the Network, and the general community, Medical Standards shall be established and maintained by each Organisation employing Rail Safety Workers.

b) The Medical Standard shall determine the individual's medical fitness to carry out the duties and Rail Safety functions.

c) Before undertaking any Rail Safety function, a person shall undergo medical examination and then medical re-examination within the minimum intervals.

d) Network Rail Safety Worker functions include:
- Network train controlling
- Network train driving including all train crew members working locomotives, rail cars or trains
- Network shunting
- Train examination, inspection, maintenance on the Network
- Recovery activities on the Network, after incidents for example
- Network track working which includes all Rail Safety Workers working, driving or travelling in track vehicles or machines on or near the Network running lines

e) Operators and Maintainers shall set the minimum intervals between medical examinations which shall be not less than as follows:
4 years - for Rail Safety Workers up to the age of 44 years
3 years - for Rail Safety Workers 44 to 49 years of age
2 years - for Rail Safety Workers 50 to 59 years
1 year - for Rail Safety Workers 60 years of age until retirement
A shorter period may be specified by a Medical Practitioner at any time.

f) Maximum intervals between vision, colour sense and hearing examinations shall be as follows (unless a shorter period is specified by the medical practitioner):
2 years - for Rail Safety Workers up to 59 years
1 year - for Rail Safety Workers 60 years of age until retirement

g) Each Organisation shall provide guidelines for Medical Practitioners conducting examinations.

h) Each Organisation shall maintain relevant medical health records.

i) Each Organisation shall ensure a Rail Safety Worker not examined within the specified period or not meeting the specified Medical Standard shall not be permitted to carry out any safety function on the Network.

4.5 *Drug and Alcohol Control*

a) Each Organisation shall establish and maintain procedures to ensure workers engaged in activities affecting railway safety are not adversely affected by alcohol or other drugs when about to carry out or while carrying out, safety related work on the Network.

b) These measures shall include random testing as well as testing after incidents that may involve a safeworking breach on the part of the Rail Safety Worker.

c) The minimum standard required shall be as deemed by State Regulation under the relevant Rail Safety Legislation. If no Legislation exists in any State the provisions of the SA Rail Safety Act shall apply.

5 SAFETY PERFORMANCE

5.1 *Safeworking Compliance Monitoring*

Each Organisation shall establish, maintain and document procedures that monitor their Rail Safety Workers safety performance.

a) The Organisation shall establish procedures for regular internal auditing safeworking performance of Rail Safety Workers.

b) Each worker engaged in the performance of safety work shall be observed working in the safety function employed at intervals of not less than one year and more frequently if it is required to ensure compliance with the Code of Practice.

c) The Organisation shall initiate corrective action where there is evidence of non-compliance.

d) Serious breaches of safeworking shall be promptly and formally advised to the Infrastructure Owner (ARTC).

e) The Organisation shall maintain their own records of compliance monitoring and corrective actions taken in relation to Safety Performance.

f) Corrective action taken by Organisations shall be promptly and formally advised to the Infrastructure Owner (ARTC).

g) The Infrastructure Owner (ARTC) shall retain the right to undertake Safeworking compliance monitoring of any Organisation operating or undertaking maintenance activities on the Network.

5.2 *Incident Monitoring*

a) All incidents occurring on the Network shall be immediately reported to the Infrastructure Owner (ARTC), normally to the train controller (in the first instance).

b) Each Train Operator and Infrastructure Maintainer shall provide the Infrastructure Owner (ARTC) with the current contact details of the person within their Organisation responsible for receiving the information as reported.

c) A Train Control Report shall be prepared by the Infrastructure Owner (ARTC) and forwarded to the nominated person for their further handling in accordance with the requirements of their Organisation and within Legislative requirements.

d) The Organisation shall maintain their own records of incidents and corrective action taken.

e) Where the incident requires corrective action on the part of the Train Operator or Infrastructure Maintainer, the Infrastructure Owner (ARTC) shall be formally advised of the action taken.

5.3 *Safety Performance Review*

a) Organisations shall establish their own procedures for reviewing Safety Performance in accordance with the requirements of each State's Rail Safety Legislation. Where Legislation does not exist in any State the procedures shall be in accordance with the SA Rail Safety Legislation.

b) The procedures shall include the monitoring and analysis of incidents to determine problems and adverse trends. Key Performance Indicators for Safety shall be maintained by each Organisation.

c) Organisations shall establish procedures for initiating preventative action in relation to the problems identified.

d) The Infrastructure Owner (ARTC) and Organisation shall participate in joint Safety Performance Review meeting where incidents and corrective actions are tabled for discussion and joint corrective action as required.

6 NETWORK SAFEWORKING SYSTEMS

6.1 *Network Safeworking System Overview*

The train controller shall be in charge of day to day operational control of Network Safeworking Systems.

At unattended locations where trains cross or pass the operation is conducted in accordance with crossing and passing rules and procedures within the safeworking system that applies.

Safeworking systems in operation for individual Network segments are as follows:

Network Segment	Number of Lines	Safeworking System
Wolseley – Mile End	Single	CTC
Mile End – Dry Creek	Single	CTC
Dry Creek – Port Adelaide	Single	CTC
Gillman Junction – Port Flat	Single	CTC – with verbal yard working
Glanville – Birkenhead	Single	ABS
Birkenhead – Pelican Point	Single	AAW
Dry Creek – Crystal Brook	Single	CTC
Crystal Brook – Coonamia	Double	CTC
Crystal Brook – Broken Hill	Single	ABS
Coonamia – Stirling North	Single	Train Orders
Stirling North – Spencer Junction	Single	CTC
Stirling North – Coal Fields ***	Single	Train Orders
Stirling North Junction	Single	CTC
Stirling North – Northern Power Station ***	Single	Train Orders
Spencer Junction – Kalgoorlie	Single	Train Orders
Spencer Junction – Whyalla	Single	Train Orders
Wolseley – Maroona	Single	CTC
Maroona - Gheringhap	Single	Section Authority Working
Gheringhap – Newport	Single	CTC
Newport – Tottenham "B"	Single	ABS
Spencer St – Bunbury St Tunnel	Single	ABS
Dynon – Appleton Dock	Single	ABS
Bunbury St Tunnel – West Footscray Jct	Double	ABS
West Footscray Jct – Albury	Single	CTC

Note - *** Lines owned by other parties but controlled under contract by ARTC. Separate access agreement needed to enter these areas.

6.2 *Melbourne Metropolitan Area*

Signals within the Melbourne metropolitan area also identified with an additional name plate below signifying whether the signal is controlled from a local signal box e.g. West Tower or controlled from ARTC Adelaide.

6.3 *Dual Gauge Working*

(1) North Melbourne 1.78 km to 2.29km
Single Line / Dual Gauge

(2) Sims Street – West Footscray
Double Lines / Dual Gauge

(3) Tottenham – Brooklyn
Single Line / Dual Gauge

(4) Brooklyn – Newport
East Line / Dual Gauge

(5) Nth Geelong – Gheringhap
Single Line / Dual Gauge

A speed restriction of 80 KPH applies on the broad gauge line.

(6) Dry Creek to Gillman Junction
Single Line / Dual Gauge

(7) Gillman Junction to Port Adelaide Junction
Single Line / Dual Gauge

(8) Port Adelaide Junction to Glanville Junction
Double Lines / Dual Gauge

(9) Glanville Junction to Port Adelaide (Outer Harbour)
Single Line / Dual Gauge

(10) Gillman Junction to Port Adelaide Flat
Single Line / Dual Gauge

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7 GENERAL PRINCIPLES FOR TRAIN MANAGEMENT OVER THE INTERSTATE NETWORK

Trains operating on the Interstate Network shall be managed by the Infrastructure Owner (ARTC) in accordance with the General Principles for Train Management. These are as follows:

a) To ensure operational safety is maintained.

b) The Infrastructure Owner (ARTC) shall manage 'below rail' operating integrity so that the path entitlement can be met. 'Below rail' integrity includes the safe integrity of the track and related safeworking system infrastructure.

c) Train Operators shall manage 'above rail' integrity so that the train path entitlement can be met. 'Above rail' integrity includes train crewing, locomotives, rolling stock, loading and train composition.

d) The Infrastructure Owner (ARTC) shall manage the Network on behalf of Train Operators based on agreed Network Entry/Exit times.

e) The Infrastructure Owner (ARTC) shall manage trains according to their schedule with the following objectives:
- On time exit from the Network
- Not to contribute to time lost
- To make up time where the gain can be held

f) The decision making process within these principles shall be managed by the Infrastructure Owner (ARTC) in accordance with the Train Management Decision Making Matrix.

8 TRAIN MANAGEMENT DECISION MAKING MATRIX

TRAIN PLAN	Train A → a AGREED NETWORK ENTRY/EXIT TIMES										
Train B	TRAINS RUN	Actual Train Performance	OT running Premium	Running ahead Premium	Late running Premium	OT running High	Running ahead High	Late running High	OT running Standard and Low	Running ahead Standard and Low	Late running Standard and Low
AGREED NETWORK ENTRY/EXIT TIMES	Actual Train Performance	TRAIN CONTROLLER'S OBJECTIVE	OT Exit	OT Exit	1. No more time lost 2. Make up time 3. Hold the gain	OT Exit	OT Exit	1. No more time lost 2. Make up time 3. Hold the gain	OT Exit	OT Exit	1. No more time lost 2. Make up time 3. Hold the gain
	OT running Premium	OT Exit	Scheduled Cross	A or B Rule 2	B Rule 3	Scheduled Cross	B or A Rule 2	B Rule 3	Scheduled Cross	B or A Rule 2	B Rule 3
	Running ahead Premium	OT Exit	A or B Rule 2	A or B Rule 2	B Rule 3	B or A Rule 2	B or A Rule 2	B Rule 3	B or A Rule 2	B or A Rule 2	B Rule 3
	Late running Premium	1. No more time lost 2. Make up time 3. Hold the gain	A Rule 1	A Rule 1	A or B Rule 4	A Rule 1	A Rule 1	B Rule 6	A Rule 1	A Rule 1	B Rule 6
	OT running High	OT Exit	Scheduled Cross	A or B Rule 2	B Rule 3	Scheduled Cross	A or B Rule 2	B Rule 3	Scheduled Cross	B or A Rule 2	B Rule 3
	Running ahead High	OT Exit	A or B Rule 2	A or B Rule 2	B Rule 3	B or A Rule 2	A or B Rule 2	B Rule 3	B or A Rule 2	B or A Rule 2	B Rule 3
	Late running High	1. No more time lost 2. Make up time 3. Hold the gain	A Rule 1	A Rule 1	A Rule 5	A Rule 1	A Rule 1	A or B Rule 4	A Rule 1	A Rule 1	B Rule 6
	OT running Standard and Low	OT Exit	Scheduled Cross	A or B Rule 2	B Rule 3	Scheduled Cross	A or B Rule 2	B Rule 3	Scheduled Cross	B or A Rule 2	B Rule 3
	Running ahead Standard and Low	OT Exit	A or B Rule 2	A or B Rule 2	B Rule 3	A or B Rule 2	A or B Rule 2	B Rule 3	B or A Rule 2	B or A Rule 2	B Rule 3
	Late running Standard and Low	1. No more time lost 2. Make up time 3. Hold the gain	A Rule 1	A Rule 1	A Rule 5	A Rule 1	A Rule 1	A Rule 5	A Rule 1	A Rule 1	A or B Rule 4

Rule 1 Train B may be given preference on condition Train A will still meet OT objective
Rule 2 Both trains must meet OT objective
Rule 3 Train A may be given preference on condition Train B will still meet OT objective
Rule 4 Give priority to train where train performance indicates it will lose least or no more time and even make up time and hold the gain
Rule 5 Train B may be given preference if A will continue to lose time and gains made cannot be held
Rule 6 Train A may be given preference if B will continue to lose time and gains made cannot be held

9 INTERSTATE NETWORK OVERVIEW

A general overview of Interstate Network crossing locations is depicted in Appendix II. At each crossing location shown, the length of the crossing loop is indicated in metres. For convenience, a notional display of yards that are attached to the crossing locations is also shown.

10 TIME

10.1 *Watches and Clocks*

24 hour time shall be observed.

10.2 *Time Zones*

a) Eastern Standard Time shall be observed between Albury-Melbourne and up to but not including Wolseley. Central Standard Time shall be observed over the remainder of the Network except west of Cook. At Cook, westbound arrivals and eastbound departures observe Central Standard Time, eastbound arrivals and westbound departures observe Western Standard Time.

b) On dates promulgated in each State and Territory of operation, changes to and from daylight saving time shall be observed.

11 TRAIN SPEEDS

11.1 *Maximum Train Speed (Interstate Network)*

Train Class	Speed for Whole of Train (locomotives and rolling stock, loaded or empty)
Super Premium	130 km/h
Premium	115 km/h
High	110 km/h
Standard	80 km/h
Low	As specified- but not greater than 80km/h
Other	Speed as specified from time to time
Specific lower speeds and axle loads apply depending on corridor and rollingstock characteristics – Refer section 23 for corridor limits	

11.2 *Maximum Train Speed for Major Interstate Segments*

Train Class	Adelaide - Melbourne km/h	Adelaide – Parkeston km/h	Crystal Brook – Peterborough km/h	Peterborough – Broken Hill km/h		Melbourne – Albury km/h	Port Augusta - Whyalla km/h
Super Premium						130	
Premium	115	115	110	115		115	100
High	110	110	110	110		110	100
Standard	80	80	80	80		80	80

11.3 *Permanent Speed Restrictions and km Changes on the ARTC Network*

a) Permanent speed restrictions shall be identified with trackside signs permanently erected by the Infrastructure Owner (ARTC).

b) Location specific arrangements:

Adelaide to Parkeston/Broken Hill/Whyalla
Track side signs shall be placed in advance of the outer tangent point to allow braking before the curve encountered as follows:

250	metres – speed reduction	0-15	km/h
500	metres – speed reduction	20-30	km/h
750	metres – speed reduction	35-45	km/h
1000	metres – speed reduction	50	km/h or greater

Permanent Speed Restrictions shall be applied as “individual” or as “blanket curve restrictions”.

Individual Curve Restrictions shall apply at each single restricted curve, where a board shall be placed on the left hand side of the line as viewed by the train crew of an approaching train near the commencement of the curve in each direction according to location on the network

Blanket Curve Restrictions shall apply at a series of restricted curves in close succession and the single “Blanket” restriction shall apply to the whole series of curves. Blanket Curve Restrictions shall be indicated by a pair of boards on either side of the line as viewed by the train crew of an approaching train near the commencement of the curve in each direction.

Parkeston and Kalgoorlie

Note that between Parkeston and Kalgoorlie some curve speed signs of Westrail pattern exist.

Adelaide to Melbourne

The locations of signs follow the provisions of the draft National Code of Practice for Operations and Safeworking (Interface rules) which states:

Permanent Speed sign - A sign to indicate the maximum speed allowable in kilometres per hour.

Meaning – When approaching or passing a Permanent Speed Sign the track speed indicated remains in force until the next change of speed is indicated.

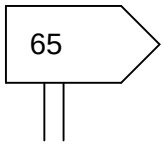
When the Speed Sign changes:

- A decrease means train crew must reduce to the indicated speed before passing the sign
- An increase means the train crew may increase to the indicated speed after the whole train has passed the sign. Note that at curves or a series of curves with geometry requiring the maximum speed to be reduced below maximum authorised for the line, the permanent speed signs are located at the ends of the relevant curves.

Melbourne (beyond Tottenham) to Albury

Curve Speed Boards

Every curve (except those within crossing work) with a geometry requiring the maximum speed to be reduced below the maximum authorised for any train is indicated by a Curve Speed Board (see diagram below).



The number shown on the Curve Speed board indicates in kilometres per hour the maximum speed allowed when travelling around the curve. The train shall slow to the indicated speed before the train enters the curve and shall not accelerate until the entire train is clear of the curve. The Curve Speed boards are located on the left hand side of the line facing the driver at both ends of the curve. It is pointed at one end and is placed so that the pointed end indicates the direction of the curve.

Speed boards

At particular locations a speed board (see diagram below) may be placed on the left hand side of the line at a suitable distance before reaching the next fixed signal indicating that the train speed shall be promptly reduced to no more than the figure in kilometers per hour shown on the board until sighting the next fixed signal. The train shall then proceed according to the aspect displayed on the next fixed signal. The letter prefix (i.e. G- for Goods, F- for Fast Goods/Superfreighter and P- for Passenger trains) above the letter displayed indicates to which type of train the speed restriction applies. For example:

G 55

c) Permanent Speed Restrictions are in APPENDIX I.

d) Significant km changes on ARTC network are listed in APPENDIX I.

11.4 *Temporary Speed Restrictions*

a) Temporary speed restrictions shall as soon as practicable be identified with trackside signs temporarily erected by the Infrastructure Owner (ARTC).

b) The Infrastructure Owner (ARTC) shall regularly issue temporary speed restrictions, warnings and other important notices. Refer Appendix XIV for details of Notice distribution.

c) Organisations shall arrange and maintain facilities, and establish the necessary procedures to ensure Rail Safety Workers are issued with current temporary speed restrictions, warnings and other important notices.

d) The train controller shall provide train crews with Temporary Speed Restrictions warnings and other important notices that may be imposed before being issued by the Infrastructure Owner (ARTC).

11.5 *Heat Restrictions*

Heat related speed restrictions may be imposed during times of extreme heat account an increased risk for the track to buckle. Train speeds may be directed to be reduced.

The amount of reduction in train speed, the locations of the reduction in normal speed and the time duration of the restriction will be advised.

11.6 *Maximum Authorised Speeds of Trains*

The maximum allowable train speed shall be which ever is the lowest of

- maximum allowable track speed
- permanent local speed (e.g. curve speed)
- maximum allowable speed for the class of train (e.g. premium)
- maximum allowable locomotive speed (for multiple locomotive trains, the lowest speed for any one locomotive shall apply)
- maximum speed allowed by the classification of rollingstock
- temporary speed restrictions in force
- the speed to ensure compliance with the ARTC code of practice under all conditions

11.7 *Temporary speed Restriction Boards – Adelaide to Kalgoorlie, Crystal Brook, Broken Hill and Port Augusta Whyalla*

Prior to conversion of temporary speed restriction boards on the above corridors to National Code compliant boards, the boards formerly in use prior to the introduction of the National Code of Practice will remain in use as detailed in the ARTC Addendum. The end TSR Board will not show a speed on it unless it is for a further speed restriction less than the normal speed for the location concerned.

Pending the introduction of temporary speed restriction boards complying with the National Code of Practice, boards complying with the previous AN Code will remain in use on the above corridors. Details of this type of signage and its application are included in the ARTC Addendum.

Consistent with best practice, the end TSR Board will not show a speed on it unless it is for a further speed restriction less than the normal speed for the location concerned.

All old End TSR Boards currently in place will be inspected for compliance with the above and where necessary changes will be made to ensure they comply by not later than 31 January 2003.

11.8 *Temporary speed Restriction Boards – Albury to Wolesley – ARTC Victorian Jurisdiction*

Associated with the introduction of consistent axle loads and speeds in the Victorian Jurisdiction as exists elsewhere on the ARTC network was the adoption of the National Code of Practice (NCOP) procedures for the erection and placement of temporary Speed Restriction warning signs (2500 metres in advance of speed restriction boards) at relevant restricted track on the ARTC Victorian Jurisdiction, details of which are accessible in the ARTC addendum to the NCOP. The use of the new signage and its placement will provide additional warning time/distance to train crews operating heavier and higher speed services.

12 TRAIN LENGTH MAXIMUMS (Including Locomotives)

12.1 *General*

a) The Train Operator shall provide an effective means to accurately determine the length of a train (including locomotives).

b) The length of the train shall not exceed specified maximum length for any portion of the train's transit without the prior authority of Infrastructure Owner (ARTC).

12.2 *Maximum Length of Trains*

a) The maximum length of trains is specified in the Access Agreement for that particular train over the corridors of operation which may be equal to or less than the network infrastructure limits.

b) The network infrastructure limits for train length are as follows:
Adelaide to Kalgoorlie,and Broken Hill – 1800 metres
Adelaide to Albury via Melbourne – 1500 metres

c) The maximum length is specified to enable the train to transit through the Network within the scheduled transit time. Trains not exceeding the maximum specified length are able to cross or pass other trains at the majority of crossing loop locations distributed within that segment with either train able to be accommodated within location's main line or crossing loop facility.

d) The Infrastructure Owner (ARTC) shall specify the maximum length of trains within the Access Agreements where it is at variance to the network infrastructure limits.

e) Train Operators shall ensure that the specified maximum length shall not be exceeded at any time and make allowance for rolling stock (including locomotives) to be attached within the Network.

12.3 *Over Length Trains*

a) An over-length train is a train exceeding the network infrastructure limits for train length.

b) A train that is found to be over length without approval shall not be permitted to enter or continue to operate on the Network. The train shall forgo train priority entitlement and in addition the train shall be reduced to standard length at the discretion and convenience of the Infrastructure Owner (ARTC).

13 TRAIN HEIGHT AND WIDTH MAXIMUM (In Gauge)

13.1 *A guide to Standard Train Height and Width Maximum*

Trains of all classes (in either direction)	Adelaide - Melbourne	Melbourne - Albury	Adelaide - Parkeston	Crystal Brook – Broken Hill	Whyalla – Port Augusta	
Width (from centre line)	1250 mm	1250 mm	1500 mm	1250 mm	1500 mm	
Height (from rail)	4250 mm	4150 mm	6500 mm	5900 mm	6000 mm	
ROA Rollingstock Outline plate						
Note: For rollingstock outlines refer to Manual of Engineering Standards and Practices or successor volumes for details of the above widths and associated heights. For Adelaide locations see below. For further specific details of clearance exceptions on the Adelaide to Dynon corridor refer section 13.2, 13.4 and 13.5 below						

Details of Adelaide locations

Trains	Melbourne – Anzac Highway bridge (Adelaide – Melbourne)	Anzac Highway Bridge – AFT (Regency Road Bridge)	Regency Road Bridge - Parkeston/ Broken Hill i.e. north of AFT	Dry Creek - Gillman - Port Flat	Gillman - Outer Harbour
Width (from centreline)	1250 mm	1250 mm	Refer above table	1500 mm	1250 mm
Height (from rail)	4250 mm	4700 mm	Refer above table	6300 mm See Note 2 above	4250 mm
ROA Rollingstock Outline plate					

13.2 *Trailerail Operations in ARTC Victoria*

"Trailerail" permitted to operate between Sth Dynon and Wolseley only.

"Trailerrail is **not permitted** to operate Tottenham to Albury

"Trailerail" not allowed through:

(a) No. 3 road Tatyoon
(b) No. 4 road Horsham
(c) No. 4 road Kaniva

The maximum speed for the Trailerail on the "UP" line through "Bunbury Street Tunnel" is 25 KPH.

13.3 *Out of Gauge Loading*

a) The Infrastructure Owner (ARTC) may issue a train notice to a Train Operator who applies for Out of Gauge Loading transit through the Network. The train notice for the out of gauge will give limitations and conditions applying.

b) The application shall be registered with the Infrastructure Owner (ARTC) with at least one working day's notice before:
- Network entry by the train to transport Out of Gauge Loading
- Out of Gauge is attached within the Network

c) The Infrastructure Owner (ARTC) may not approve an out of gauge application where the approval will impact on the transit performance of other trains in the Network.

13.4 *Clearances for short bogie centre grain hoppers – Adelaide to Dimboola ONLY*

The following permitted infringements on Railways of Australia rollingstock outline plate D (alternate principal maximum rollingstock outline) are allowable for hopper wagons with bogie centers 10173mm, and overall length 12979 mm over headstocks

from 3835mm to 3935mm high from rail level, allowable width is 2710mm (1355mm from center line)

in the region between the points 1598mm to 2898mm from rail level, infringement as below #

maximum permitted width is 3050 mm (1525mm from centerline) at 1598mm high from rail, increasing to 3200mm (1600mm from
center line) wide at 2248mm high from rail and decreasing to 3050mm (1525mm from centerline) wide at 2898mm high from rail
Typical wagons are Ex Westrail hoppers class "WW" grain hoppers (as modified to comply with the permitted infringements)
Wagons operating with the above infringement are to be clearly identified and managed by the train operator intending to
operate within the above permitted infringements.
The above ONLY applies from Adelaide to Wolesley on the ARTC network.
All other provisions of the Railways of Australia rollingstock outlines section 18 apply.

13.5 *Clearances for long bogie centre, low profile wagons – Adelaide to Dynon ONLY*

The following dimensions apply for conveyance of 53ft by 10'6. boxes on long bogie center, low profile wagons.(eg RQDW, VQDW , AQDW type - 1020mm deck height,& former 80 foot container wagons)

.Maximum height is 4210 mm and at width of 2500mm
.Applies to wagons with bogie centres 17.3 metres and over all length 24.680m (greater than ROA standard wagon dimensions
(refer ROA pates A and C) with increased outswing and inswing
.Wagon/s to be loaded centrally with 53 ft box, and final outline to fit within the above dimensions to compensate for the inswing

.Speed restrictions of 25 km /hr apply through tunnels at the following locations
.UP track (Adel to Melb direction) Bunbury street tunnel
.Ambleside (between Balhannah and Bridgewater)
.Long Gully (Adelaide Hills)
.National Park (Adelaide Hills)

14 TONNAGE MAXIMUMS FOR TRAINS

14.1 *Maximum Trailing Loads*

Trains of all classes (in either direction)	Mile End - Tailem Bend	Network (other than Adelaide - Tailem Bend)
All classes Note 1	5000 tonnes (behind any locomotive set) Refer Note 1	No maximum trailing load (but other limits apply) – Refer Note 1

Note 1 – It is a condition of entry onto the Network that the Operator indemnifies against loss or damage from rollingstock that is not at all times in a good and safe operational condition as required by the access agreement. The Operator is responsible to ensure integrity of train marshalling and management and can operate safely within the infrastructure capacity limits, curves, gradients and safeworking systems.

14.2 *Marshalling Sequence of Trains*

Train Operators shall be responsible for establishing and maintaining procedures which ensure compliance with their train marshalling and train management which shall include consideration of, but not limited to:

a) Dangerous goods segregation requirements in accordance with Code of Practice and Conditions for the Carriage of Dangerous Goods.

b) Loaded vehicles generally marshalled to the front of the train.

c) Lightly loaded and empty vehicles generally marshalled to the rear of the train. (i.e. distribution of loading of vehicles so as to ensure appropriate wheel/rail interface.)

d) Train crew competency, route knowledge, train braking within limits of authority, locomotive brake holding capabilities, locomotive and rollingstock drawgear strength, wheel profiles, bogie and wheel alignment, bogie and wheel condition.

e) Lateral to vertical loads considering different rollingstock types.

15 TRAIN LOCOMOTIVES

15.1 *Locomotive Allocation*

The Train Operator shall provide the following :

1. Systems which allow all requirements associated with the allocation and support of locomotives to be undertaken. This shall include the allocation of locomotives that are :

   a) certified for operation
   b) rated for the track speed for the class or type of train to which it is allocated
   c) fit for purpose in terms of mechanical and electrical condition
   d) fit for purpose in terms of the task to be performed
   e) provisioned with sufficient supplies of fuel, sand, coolant lubricants as well as safety, safeworking and communications equipment

2. Ongoing maintenance of locomotives used on the Network to ensure reliability of maintaining schedules.

3. Advance advice to the Infrastructure Owner (ARTC) detailing planned locomotive movements.

4. Timely advice to the Infrastructure Owner (ARTC) of any subsequent changes to locomotive allocation that may be required for operational reasons.

5. An indemnity to the Infrastructure Owner (ARTC) that at all times all of their rollingstock is fit for purpose and remains in a state of good repair

6. A detailed investigation report to the Infrastructure Owner (ARTC) on request, into the causes of the incident and the prior condition of the vehicle or component in accordance with the Access Agreement.

The Track Owner may impound any vehicle or component suspected of involvement in an incident that could expose ARTC to liability for the purpose of inspection and or analysis with a view to obtaining compensation from the responsible party.

15.2 *Hauling and Holding Capability of Locomotives*

a) The allocation of locomotive power is at the discretion of the operator. This discretion is provided on the basis that the locomotives used shall have the hauling capacity sufficient for maintaining section running times.

b) The hauling capacity of individual and multiple locomotives shall be matched by their holding capacity which may vary from locomotive to locomotive but shall be sufficient for the train being hauled to be under the control of the train crew at all times, on the grades and conditions of the Network.

c) Where an individual locomotive's rated hauling or holding capability is reduced when coupled or working with other locomotives, the effect shall be fully considered by the Train Operator when allocating locomotives to operate trains.

d) Each Train Operator shall maintain a record of details of Hauling and Holding capabilities of locomotives and provide details to the Infrastructure Owner (ARTC) on request.

e) The following table provides guidelines only (expressed as horse power/tonnage ratios), for the hauling capability required for trains to progress through the Network within their train type class transit expectation and associated section run times.

f) The following table is provided for the guidance of Operators in allocating locomotive hauling capacity for specific corridors. The network owner reserves the right to limit passage of a train powered by locomotives at a ratio at variance to that shown.

Locomotive Hauling Capability Guidelines					
Trains of all classes (in either direction)	**Adelaide – Melbourne**	**Adelaide - Parkeston**	**Crystal Brook – Broken Hill**	**Melbourne - Albury**	
Premium	Adelaide – Tailem Bend 3 hp/t Tailem Bend – Melbourne 2 hp/t	2.1 hp/t			
High	Adelaide – Tailem Bend 3 hp/t Tailem Bend – Melbourne 2 hp/t	2 hp/t			
Standard	Adelaide – Tailem Bend 3 hp/t Tailem Bend – Melbourne 2 hp/t	1.6 hp/t	1.7 hp/t		

15.3 *Locomotive Communications Equipment*

a) All communications equipment needed to operate trains on the Network shall be the responsibility of the Train Operator.

b) The Train Operator shall ensure that the communications equipment shall be fully maintained and functional for the purpose of safe working on the Network.

c) Locomotives allocated shall be fitted with voice radio communications equipment as follows:

Wolseley - Adelaide	Adelaide – Parkeston	Broken Hill - Crystal Brook		Wolseley - Melbourne	Melbourne - Albury
Mobile phone UHF Radio	UHF Radio VHF Radio	UHF Radio VHF Radio		UHF radio Mobile phone	UHF radio

d) Radio communications equipment shall comprise end to end radio and train to base radio.

e) Where trains operate in Section Authority Territory, a locomotive Screen Display Unit (LSDU) shall be fitted.

f) Refer to Appendix X for details of Radios and Communications devices.

16 FUELLING

a) The Train Operators shall maintain all the requirements associated with the fuelling of locomotives or other rolling stock.

b) Only approved fuelling facilities shall be used when fuelling locomotives or other rolling stock when standing on Network running lines.

c) Approved fuelling facilities are as follows:
- Cook - fuel storage facility with fuelling from main line or crossing loop
- Parkeston – fuelling pad only with fuelling from mobile tanker on western end of the main line and eastern end of the crossing loop.

NOTE 1: At no time must fuelling take place off of the fuel pads provided.
NOTE 2 : Fuelling pads at Parkeston are owned by National Rail – permission must be sought from NRC to use these facilities

d) Where fuelling needs be undertaken at any site other than as specified in c), as in the case of an emergency for example, permission shall be sought from the Infrastructure Owner (ARTC).

17 TRAIN DOCUMENTATION

17.1 *Documentation Requirements Before Network Entry*

Before Network entry the Train Operator shall put in place systems to provide the Infrastructure Owner (ARTC) a train manifest that shall accurately specify the composition of the train and shall include:

a) The identity of each locomotive working or being hauled
b) The name of each member of the train crew and of other persons travelling on the locomotive
c) The total number of vehicles on the train
d) The gross mass of the train in tonnes (including mass of locomotives working and hauled)
e) The gross trailing mass of the train in tonnes (excluding mass of working locomotives)
f) The length of the train in meter's
g) The vehicle class, number and check letter
h) Vehicles with dangerous goods including dangerous goods class
i) The actual sequence of vehicles
j) The gross mass each vehicle
k) Vehicles with out of gauge loading
l) The origin and destination of each vehicle
m) Train number and date for identification

The train operator shall provide the train manifest to the Infrastructure Owner (ARTC) by
a) Electronic data transfer, if available , or
b) Photocopy, if convenient or
c) Otherwise , by facsimile

17.2 *On Train Documentation*

The Train Operator shall ensure that the train crew to operate the train has in their possession on the locomotive the following documentation:

a) A brake test certificate declaring:
   - Correct braking function
   - Details of rolling stock with brakes cut out
   - Brake pipe leakage
   - The identity of rolling stock used in brake holding tests

b) A manifest specifying each item detailed in 17.1

c) Dangerous goods documentation and applicable Emergency Procedure Guides (if dangerous goods are being transported)

d) Applicable Train Notices and Circulars

e) Applicable Temporary Speed Restriction Notices

f) Appropriate safeworking forms

17.3 *Documentation Requirements After Network Entry*

The Train Operator shall put into place systems to ensure:

a) On train documentation is amended to reflect changes to the train consist during its transit on the Network.

b) Train control is advised of the changes.

17.4 *Infrastructure Owner (ARTC) Requested Documentation*

Upon request from the Infrastructure Owner (ARTC) the Train Operator shall provide a copy of any of the documentation detailed in 17.1, 17.2 or 17.3.

17.5 *Documentation Discrepancies Affecting Operational Safety*

a) Where the Train Operator notices a documentation discrepancy the Infrastructure Owner (ARTC) shall be advised.

b) Where the Infrastructure Owner (ARTC) notices a documentation discrepancy the Train Operator shall be advised.

c) Where the discrepancy impacts the safe integrity of the train, the Infrastructure Owner (ARTC) shall arrange for the train to be stopped at the first available location where the train crew shall compare the on train documentation with the actual composition of the train.

d) Details of any discrepancy impacting on the safety of the train noticed by the train crew shall be provided to the Infrastructure Owner (ARTC).

e) Examples of documentation discrepancies affecting safety are as follows:
   - Actual train length exceeds the documented train length.
   - Actual vehicle sequence varies from documented sequence.
   - Actual vehicles on the train vary from documented vehicles on the train.
   - Actual mass or dimension exceeds documented mass or dimension.

f) Once the discrepancy has been resolved and the safe integrity of the train assured, normal operations shall be resumed.

18 EXAMINATION AND TESTING OF AUTOMATIC TRAIN BRAKE ON LOCOMOTIVE HAULED TRAINS

a) Arrangements for the examination and testing of automatic train brake on locomotive hauled trains shall be the responsibility of the Train Operator.

b) Refer Code of Practice for the Defined Interstate Rail Network - Route Standards

19 BRAKE HOLDING TESTS (Retention tests)

a) Arrangements for brake holding tests shall be the responsibility of the Train Operator. Refer Code of Practice for the Defined Interstate Rail Network – Route Standards.

b) The train operator shall ensure that air and hand brake operate correctly.

c) The air brakes on the vehicles shall remain effectively applied for a period of time, based on train length, considered sufficient for a member of the train (locomotive) crew to reach the vehicles and secure handbrakes in the event of a breakaway en route.

d) Should any of the required number of vehicles fail the above test generally known as a holding test or retention test, the faulty vehicle(s) shall be repaired or the train remarshalled to ensure compliance with the requirements above.

e) Brake holding tests successfully completed will remain valid for departure within a period of 24 hours from completion of the test. After that period the vehicles shall be retested.

f) A “Holding Test” is not required on a train consist as detailed in the Code of Practice for the Defined Interstate Network – Route Standards, where the train movement is restricted to the area bounded by Mile End, Keswick Rail Terminal in the South and Pelican Point, Port Flat and Two Wells in the North.

Should the consist then form the rear portion of another train movement operating outside of the above area, a holding test “MUST” be conducted before that subsequent movement is permitted to depart.

20 ROLL-BY INSPECTIONS

a) Arrangements for roll-by inspections shall be the responsibility of the Train Operator.

b) Qualified workers shall carry out roll-by inspections whenever it is possible, safe and practicable to do so. During times of inclement weather, and/or in dark locations qualified workers are required to make a judgement about the appropriateness of these procedures to those circumstances.

c) Where infrastructure and ground conditions allow it to be done safely, during daylight hours, qualified workers should be on the ground, one each side of the train approximately 5 metres back from any passing train checking for any notifiable occurrences. Where the qualified workers are train crews conducting crossings or passing during darkness one crew member shall remain on the locomotive and utilise the head light to observe that side.

d) Where the train crew consists of a driver only conducting crossing or passing, that driver shall remain on the locomotive to observe that side.

e) In all cases trains must be observed to have the end of train marker in position on the last vehicle.

21 BRAKING PERFORMANCE OF TRAINS

The following is provided for the information of operators, the adequacy of braking performance is at all times the responsibility of the Operator. These may only be altered special circumstances at the discretion of ARTC.

21.1 *Passenger Trains*

The Train Operator operating a passenger train shall ensure the train is composed of rolling stock fully equipped with automatic train brake cut in and operating at the time of departure from the commencement location.

21.2 *Trains Other Than Passenger Trains*

The Train Operator operating trains other than passenger trains shall be responsible for ensuring compliance with the following:

a) One conventional two bogie vehicle for every ten may have the automatic train brake cut out (or be a piped vehicle) providing that the total unbraked mass of any train does not exceed 10% of the total mass of the load being hauled (excluding the mass of the hauling locomotives)

b) One bogie for every ten (10) in a train where individual bogies can be isolated or the isolation of triple valve control units affects more than two bogies. This applies, only on the proviso that the total unbraked mass of the train shall not exceed 10% of the total train mass(excluding the mass of the hauling locomotives)

c) A four wheel (two axle) vehicle shall be counted as one bogie, and locomotives under power shall not be counted as train vehicles.

d) Not more than 2 unbraked vehicles may be coupled together in any one train.

e) Where 2 unbraked vehicles are coupled together, a minimum of 2 braked vehicles shall be marshalled on either side of the unbraked vehicles.

f) In all cases the last 3 vehicles of a train shall have the automatic train brake operational

g) The qualified worker conducting the brake test shall inform the train crew of any vehicle on which the automatic train brake does not operate, and its position in the consist. The train crew is responsible for obtaining this information, which shall be set out on a brake test certificate, before starting the train.

22 IDENTIFICATION

22.1 *Qualified Workers*

The Train Operator or Infrastructure Maintainers shall ensure that all qualified workers operating trains or working on or near the running lines (main line and crossing loop) shall carry identification specifying:

a) Employment organisation.

b) The function for which the worker is qualified to perform.

22.2 *Train Identity (number)*

The Infrastructure Owner (ARTC) shall allocate a unique train identity, which shall consist of numerals or alphas and numerals as required.

22.3 *Trains and Light Locomotives*

a) Trains and light locomotives shall be identified by train identity and leading locomotive identity.

b) The identity light of the leading locomotive shall be on at all times.

c) The headlight of the leading locomotive shall be on when the train is moving on the running lines (main line and crossing loop).

d) An end of train marker displaying a red light by night or white disc by day, shall be in position on the rear of last vehicle and shall have the capacity to function from origin to destination and indicates that the train is complete.

e) A light locomotive when on the running lines (main line and crossing loop) shall display a red light to the rear.

22.4 *Rolling Stock*

The Train Operator shall be responsible for the requirements of rolling stock including identification as follows.

1. Rolling stock shall display and be identified by vehicle class and number and also display:
   - Capacity
   - Tare
   - Unit length (coupling points)

2. Bogies shall display classification code and serial number and also display:
    - Date last overhauled
    - Date axle bearings last overhauled
    - Date axle bearings last greased
    - Type/model of side bearer fitted (where resilient constant side bearers are used)
    - Speed capability
    - Any line segment restrictions

22.5 *Track Machines and Vehicles*

a) The Infrastructure Owner (ARTC) (or the Organisation with the Infrastructure Owner (ARTC)'s approval) shall allocate a unique identity for each Track Vehicle or Machine on the Network.

b) The identity shall be displayed in the direction of the movement when working as a train.

c) The Infrastructure Owner (ARTC) shall allocate a train number for any movement of track machines or vehicles working as a train.

d) When working as a train, track machines and vehicles shall:
- Be allocated a train identity by the Infrastructure Owner (ARTC).
- Display a white light to the front and a red light to the rear.
- If multiple track machines and vehicles are operating as a train each unit shall display its allocated identity.

e) All track machines and vehicles shall be fitted with electric tail lights and rotating flashing lights which shall be operating when travelling on the track or working within 2 metres of the nearest rail.

f) Track vehicles and machines not fitted with lights may only be used on track when accompanied by a vehicle or machine that is fitted.

22.6 *Locations*

a) Crossing loops, stations, terminals, yards and control points shall be identified by their respective designated names (e.g. Petwood, Cook).

b) A track side location is derived by kilometre location, and is bound by its two adjoining locations (e.g. 550km.500m in the Tarcoola - Carnes section or 535km.500m in the Tarcoola – Malbooma section).

22.7 *Level Crossings*

a) Level crossings shall be designated by the kilometre location and are bound by their two adjoining locations.

b) Level crossings shall be designated as having either active or passive protection. Active level crossings are listed in Appendix V.

23 AXLE LOAD MAXIMUMS

23.1 *Axle Load Maximums (excluding locomotives)*

Train Class	Maximum Infrastructure Axle Load	
	Albury to Wolesley	Wolseley to Parkeston /Broken Hill /Whyalla
Super Premium	20 T – Albury to Spencer Street	NA
Premium	20T	20T
High	21T	21T
Standard	23T	23T
Low	23T	23T
Note – Specific lower limits may apply for certain classes of rolling stock depending on individual characteristics		
Axle loads limits on the Outer Harbour line between Port Adelaide Junction and Glanville Trans Adelaide Operating restriction: 21 tonnes maximum for rollingstock 22 tonnes (including NR class locomotives) for locomotives		

23.2 *Locomotive Mass, Axle Loads and Imposed Force on Track*

All Train Classes	
Maximum total locomotive mass on rail	134 tonnes
Maximum axle load with locomotive in full working order with full supplies of fuel, sand coolant, lubricants and safety equipment	22.7 tonnes Maximum Axle Load
Axle Load	
Maximum P2 force imposed on track at 115km/h	250KN
Note – Locomotives exceeding any of these limits may be given special approval to operate.	
Axle load limit applies for locomotives on Outer Harbour line – see above	

24 ROLLING STOCK

24.1 *General Requirements (including locomotives)*

The Operator warrants that:

a) Each train operated by the Operator on the Network is at all times in a good and safe operational condition, and

b) All of the equipment used by the Operator on the Network is maintained to a sufficient standard of safety and to a sufficient level of operational efficiency.

but in any case to standards at least as high as those set out in all the relevant volumes as amended or superseded from time to time of:

a) The "Railways of Australia Manual of Engineering Standards and Practices", or

b) The draft code of practice on Rollingstock issued or published by the Australasian Railways Association, or

c) In the event the said draft of practice on Rollingstock is subsequently endorsed by the Australian Transport Council for national implementation on the Network, then such code of practice once it is so endorsed.

24.2 *Rolling Stock Allocation*

The Train Operator shall arrange all requirements associated with the allocation, use and support of rolling stock to be used on the Network. This shall include:

a) The allocation of rolling stock that is fit for purpose.

b) Ongoing mechanical maintenance of rolling stock.

24.3 *Maximum Load*

The load for any item of rolling stock shall not exceed:

a) The rated specified maximum load for that item of rollingstock
b) The vehicle maximum axle load for the applicable class of train (excluding locomotives)

24.4 *Rolling Stock Speed Capability*

Rolling stock shall be rated for the track speed capability for the class of train that it comprises.

24.5 *Securing of Loads and Ancillary Equipment*

a) The Train Operator shall ensure that the securing of loads and ancillary equipment to rolling stock is fit for purpose and is able to deal with the terrain and weather conditions across the Network.

b) Each train shall complete transit through the Network without impact upon the safe integrity of the train, other trains, track workers and their equipment, the infrastructure, public property or to the general community.

c) Machinery must be correctly secured against movement during transit and observed en route that lashings/chains have remained secure.

d) If loading has shifted or lashings/chains require re-tensioning, the wagon must not be taken forward until the necessary adjustments have been made.

25 NETWORK YARDS AND TERMINALS

25.1 *General*

a) Some Network yards and terminals may operate as attended locations. The attending of these locations is required where the frequent use of running lines is required for train operations activities in addition to the crossing and passing trains. The locations are situated in yards and terminals where the safe working system governing the running lines occupancies cannot be effected from the train control centre.

b) Examples of train operations not permissible on the running lines unless the location is attended are as follows:
- Regular loading and unloading of trains.
- Locomotive or rolling stock maintenance or service activities are undertaken.
- Train crewing arrangements require that trains are left standing without being attended by the train crew.
- Trains need to be regularly shunted by more than one train operator simultaneously.

Note: Any of the above examples may also include locomotive changes, train crew change and fuelling.

c) Safeworking and train prioritisation at attended locations shall be undertaken as follows:
- The qualified worker in charge of the attended station shall govern all safeworking for train and track worker movement, occupancies and work within the limits of the attended station yard.
- Trains shall be managed by the qualified worker in charge of the attended station who shall arrange work, movements and occupancies in consultation with the train controller and in accordance with the General Principles for Train Management.

25.2 *Times When an Attended Location may be Operated as an Unattended Station*

a) An attended location may operate as an unattended location when train movement and operation requirements to be performed when unattended, can be managed by the train controller and the train crews within the provisions of Rules and Procedures governing operations at unattended locations where specified.

b) Train Operators must manage any additional requirements that are to occur during the period of inattendance. For example, any requirements in relation to crew rostering, crew calling or transport, train security, safety of passengers if permitted to leave the train.

c) The times during which that location is deemed as appropriate for operation as an unattended station must be agreed by Train Operators and the Infrastructure Owner (ARTC).

25.3 *Tottenham Loop*

Train Run Around

a) No's 1 and 2 lines at Tottenham Loop are classified as running lines and, like any other Crossing Loop, vehicles are not permitted to stand on either running line without being attached to a locomotive.

The only exception is if the locomotive is performing a run around movement which will be promptly re-attached to the vehicles.

b) When a locomotive is performing a run around movement at Tottenham Loop, a qualified worker must be in attendance and must apply sufficient hand brakes to secure the vehicles left standing.

The "Air Brake" must not be relied on to hold the vehicles.

26 SECTION RUNNING TIMES AND ALLOWANCES

a) The Infrastructure Owner (ARTC) shall maintain a register of section running times for each section within the Network.

b) Section running times shall be varied according to train class (speed) and direction of movement.

c) Section running times shall be specified for non-stopping movements.

d) A variable allowance shall be added to the section running time for the section before a scheduled train stop dependent upon the normal length and mass of the train concerned.

e) A variable allowance shall be added to the section running time for the section after a scheduled train stop dependent upon the normal length and mass of the train concerned.

f) Section running times and allowance shall be used by the Infrastructure Owner (ARTC) for train planning and the production of schedules

g) Schedules shall be used by:
   - By train controllers as a guide for daily planning the pathing of train movements
   - By train crews as a guide when operating trains through the Network

h) It shall be permissible for a train to traverse a section in better than sectional running times indicated on schedules, but train class maximum speed, permanent, temporary, and other speed restrictions and warnings shall be observed at all times.

27 DRIVER ONLY OPERATION

Operators may implement Driver Only Operation over part or all of the Network as described subject to the following:

a) Only locomotives built for, or altered to suit, driver only operations, shall be used at all times.

b) Approval shall be sought and obtained in writing from the Infrastructure Owner for each segment, or part thereof, over which Driver Only is sought.

c) Trains working as Driver Only shall be restricted in length to enable them to fit into any crossing loop over the segment on which Driver Only Operation is being operated.

d) No additional risks associated with the removal of the second person from the locomotive shall be accepted by the Infrastructure Owner (ARTC).

e) The Operator shall ensure that alternative communications with the driver are maintained by the operator at all times when the locomotive is in Cab Unattended mode.

f) A controlled copy of the Operators instructions to train crews relating to Driver Only on the Network shall be provided to the Infrastructure Owner (ARTC) prior to the commencement of Driver Only operation.

g) Should there be a requirement to take a train order or other manual authority whilst operating as Driver Only the movement shall be brought to a stand before any attempt is made by the Driver to receive the Train Order or other authority and for the movement to remain stationary whilst the Train Order or movement authority is taken.

h) The stopping of any Driver Only train for a “needs break” shall be as agreed between the Train Controller and Driver.

i) Any train which is stopped for a needs break at other than where an allowance has been made in the schedule shall be deemed to be an unhealthy train.

j) Single ended locomotives being driven No. 2 end leading are restricted to 50kph.

28 CHANGING OF TRAIN CREWS ENROUTE

a) Where a train is to change crews enroute advice shall be given to the Train Controller of the proposed crew change location prior to departure or at the earliest time thereafter by the train crew so that pathing of trains is not unduly affected. On train crew working relay in the Port Augusta-Parkeston section, advice of the next crew change point or time should be advised to the Train Controller when the train commences its journey and at the time of each crew change enroute.

b) Train crews are not to change over part way through a section.

29 ROUTE COMPETENCE

a) Train crews, after learning a route, shall be assessed as competent by an authorised person over the entire length of the route which they have learnt before being “signed off” as competent to take charge of a train over that total route.

b) A minimum number of trips to learn each route, or part thereof, shall be established between the Infrastructure Owner (ARTC) and all Operators.

c) Each Operator shall provide the Infrastructure Owner (ARTC) with the name(s) of persons who have the authority to conduct route assessments.

30 OPERATOR FATIGUE

Operators shall ensure that Drivers are not permitted to take charge of or continue to operate a train whilst suffering from fatigue.

31 LIMITATION ON PROVISION OF FACILITIES

ARTC is responsible for the provision of running lines (main line and crossing loop) only and as such does not normally provide facilities for operators to perform other tasks such as shunting and passenger platforms. Operators wishing to perform attaches and detaches from trains or passengers loading/unloading are responsible for the provision of their own facilities for these tasks.

32 BUSHFIRES AND FIRES ADJACENT TO RAILWAY LINES

Unusual weather patterns promote the risk of fires during the summer season.

The attention of Rail Safety Workers must be directed constantly to the need for care and vigilance at all levels during the summer fire season.

(a) Train crews and Rail Safety Workers must be vigilant at all times to detect any brakes which have failed to release.

Locomotive crews are requested to pay particular attention to the operation of the Automatic Brakes on long trains. As a guide, brake pipe reductions should not be less than 100 kpa and at least 10 seconds allowed after the brake pipe air has finished exhausting through the brake valve before attempting a release.

Passing trains must be watched from both sides, where possible, for dragging brakes, hot boxes or other possible sources of fire.

(b) Firefighting equipment must be checked and inspected regularly. This includes the fire extinguishers and knapsacks carried by vehicles during summer months.

(c) Special care is to be exercised in handling, storing or transporting fuels, oils and LP gas.

(d) Fires must not be lit in the open for any purpose except as permitted by persons authorised by the FIRE AUTHORITY to issue permits.

Any such fires lit must be:

(1) Contained by properly prepared firebreaks.
(2) Attended to at all times while alight.
(3) Carefully extinguished before leaving the site.

(e) The exhaust gas systems of all vehicles and stationary engines must be inspected at regular intervals –

(1) Spark arrestors must be maintained in efficient condition.
(2) Exhaust pipes must be checked for leaks and the accumulation of materials which could ignite under working conditions.

33 SAFEWORKING LOCKS ON ARTC NETWORK

Pending finalisation of Appendix IX the following applies between Port Pirie, Port Augusta and Whyalla. Existing Lockwood "S" locks were replaced by Boyd "S"locks on choke blocks, switches, pill boxes and inspection boxes for gongs.