

# **Southern Sydney Freight Line Operational Hazards and Risk Management Plan**

16 November 2012

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**Australian Rail Track Corporation**

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# Glossary

ARTC	Australian Rail Track Corporation
CoA	Conditions of Approval
DoPI	Department of Planning and Infrastructure
EA	Environmental Assessment
EPA	Environment Protection Authority
EPL	Environment Protection Licence
LGA	Local Government Area
OEMP	Operational Environmental Management Plan
OHRMP	Operational Hazards and Risk Management Plan (this document)
SMS	Safety Management System
SSFL	Southern Sydney Freight Line

# 1. Background

This Operational Hazards and Risk Management Plan (OHRMP) has been prepared by the Australian Rail Track Corporation (ARTC) for the operation of the 36 kilometres (km) of the Southern Sydney Freight Line (SSFL). This OHRMP forms part of the Operational Environmental Management Plan (OEMP) for the SSFL, which is integrated into ARTC's Environmental Management System (EMS).

The SSFL is to become operational on 23 December 2012. In accordance with SSFL Project Approval Conditions 14 and 70, the OHRMP must be prepared and submitted to the Director-General of the Department of Planning and Infrastructure (DoPI) for approval no later than two months prior to commencement of operation of the SSFL.

This OHRMP builds on an earlier OHRMP (now superseded) for the operation of the first 5 km section of track (from Sefton Park Junction to Leightonfield and associated signalling from Enfield West) of the SSFL, which was prepared for ARTC by Parsons Brinckerhoff. This section of track became operational on 24 June 2012.

## 1.1 Scope

The scope of this OHRMP is the SSFL as described in Section 2 of the OEMP. The scope excludes all other sections of the rail network that ARTC operates and maintains.

As required by Condition of Approval 70, the OHRMP comprises documents including:

- A comprehensive Emergency Management Plan and detailed emergency procedures for the SSFL;
- A comprehensive Safety Management System, covering all operations associated with the SSFL including the interfaces with the existing rail system. The system clearly specifies all safety related procedures, responsibilities and policies, details of mechanisms for ensuring adherence to procedures, and record keeping;
- Monitoring of records of dangerous goods movements.

## 1.2 Purpose and Objectives

The purpose of this OHRMP is to detail procedures to be implemented by ARTC and its contractors during operation of the SSFL.

The objective of the OHRMP is to manage hazards, risks, safety and emergency situations on the SSFL.

The OHRMP has been prepared as a stand alone document to improve its usefulness as it can be more easily reviewed and updated with regard to changing environmental conditions and requirements.



## 2. Emergency Management Plan

Emergency management is a component of ARTC's Safety Management System as described in Section 3. The emergency management framework and associated documentation are accessible on ARTC's intranet to all staff and contractors.

The emergency management framework "page" on the intranet is at **Figure 2-1**. This shows the process to be followed and the tools available. Clicking on each box provides the reader with access to additional information.

The tools which form part of the Emergency Management Plan include:

- The Emergency Management Structure at **Figure 2-2** which sets out overall roles and responsibilities for the incident management process;
- ARTC Incident Management Manual TA 44 Version 4.6 at **Appendix 1**. This details the policy and responsibilities for the management of rail incidents which either occur within or impact on ARTC's rail network. It provides, in a systematic manner, a work procedure for managing recovery, investigation and reporting of incidents, and complies with the requirements of Australian Standard 4292 – Rail Safety Management;
- The ARTC Incident Management process at **Appendix 2** which provides a framework for the management of major incidents, setting out the various stages of the incident management process;
- Annexure J Sefton-Macarthur (SSFL Shared Corridor) at **Appendix 3** to the existing RailCorp-ARTC Interface Agreement at **Appendix 6**. Annexure J was developed and agreed by ARTC and RailCorp, as described in the Incident Management Manual TA 44 Version 4.6. It describes the Shared Corridor interfaces between Sefton Park Junction and Macarthur (Land, Operational, Train Radio, Infrastructure, Possession and Contacts), in a similar manner to the way in which existing network interfaces are described. In addition, Section 6 (Shared Corridor Protocol) of Annexure J addresses the parallel network interface and the mitigation measures/protocols relating to the Danger Zone in the Shared Corridor.

The above documents form an emergency management hierarchy. The ARTC Incident Management Manual TA 44 Version 4.6 at **Appendix 1** is an over-arching document which describes the work procedure for the whole of the ARTC network. It includes reference to NSW specific requirements in its Appendix C. Annexure J Sefton-Macarthur (SSFL Shared Corridor) at **Appendix 3** is an annexure to the existing RailCorp-ARTC Interface Agreement. It includes greater, in-depth description of the emergency and incident management arrangements as they apply specifically to the SSFL Shared Corridor, including a more extensive list of contacts on page 20.

Members of the public are encouraged by signage along the shared corridor to contact the RailCorp HotLine in the event of an incident within the rail corridor. If the incident is on the SSFL, RailCorp staff will then forward the report to ARTC. Both RailCorp and ARTC contact numbers are included on page 20 of the Shared Corridor protocol.

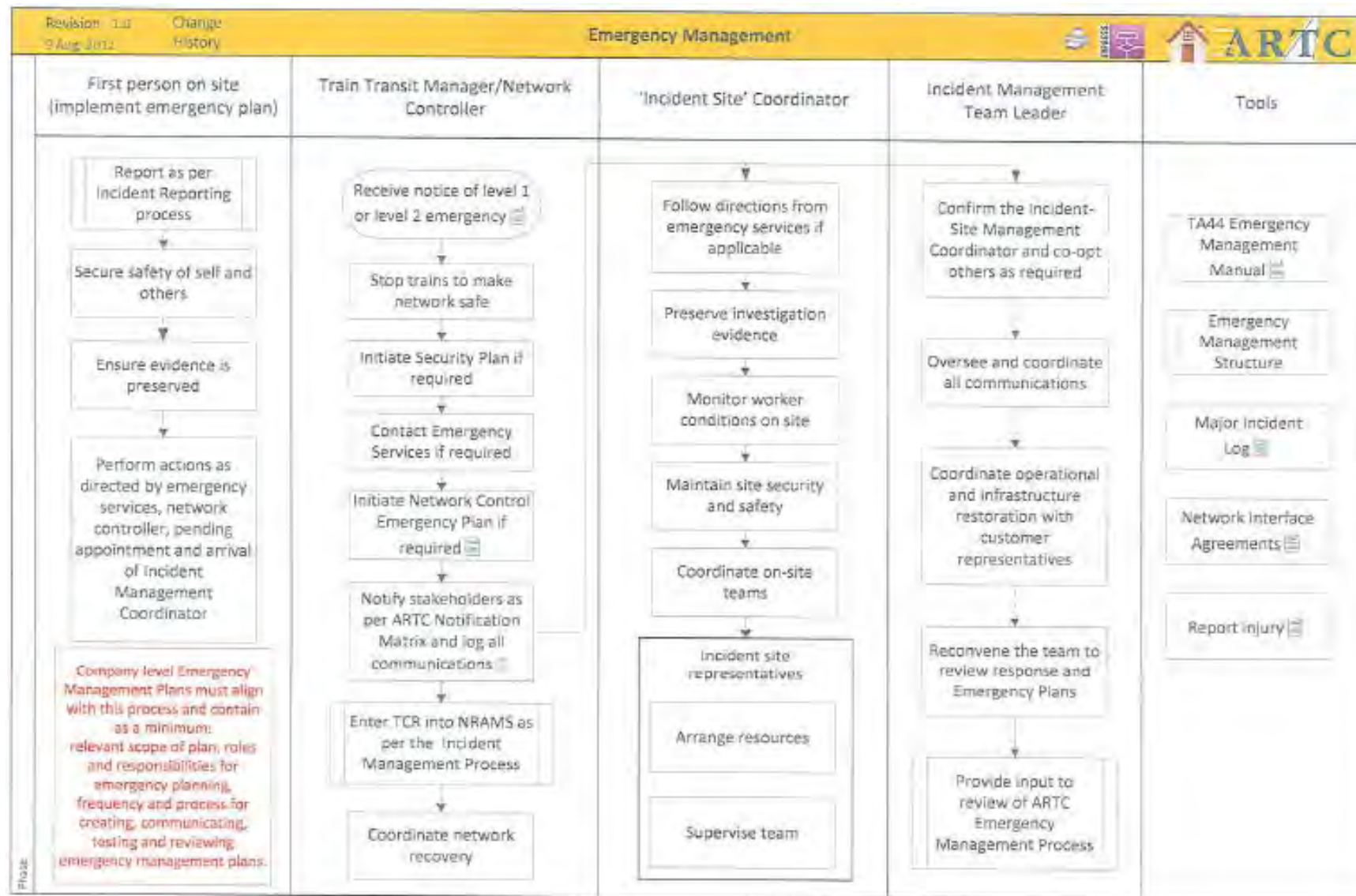
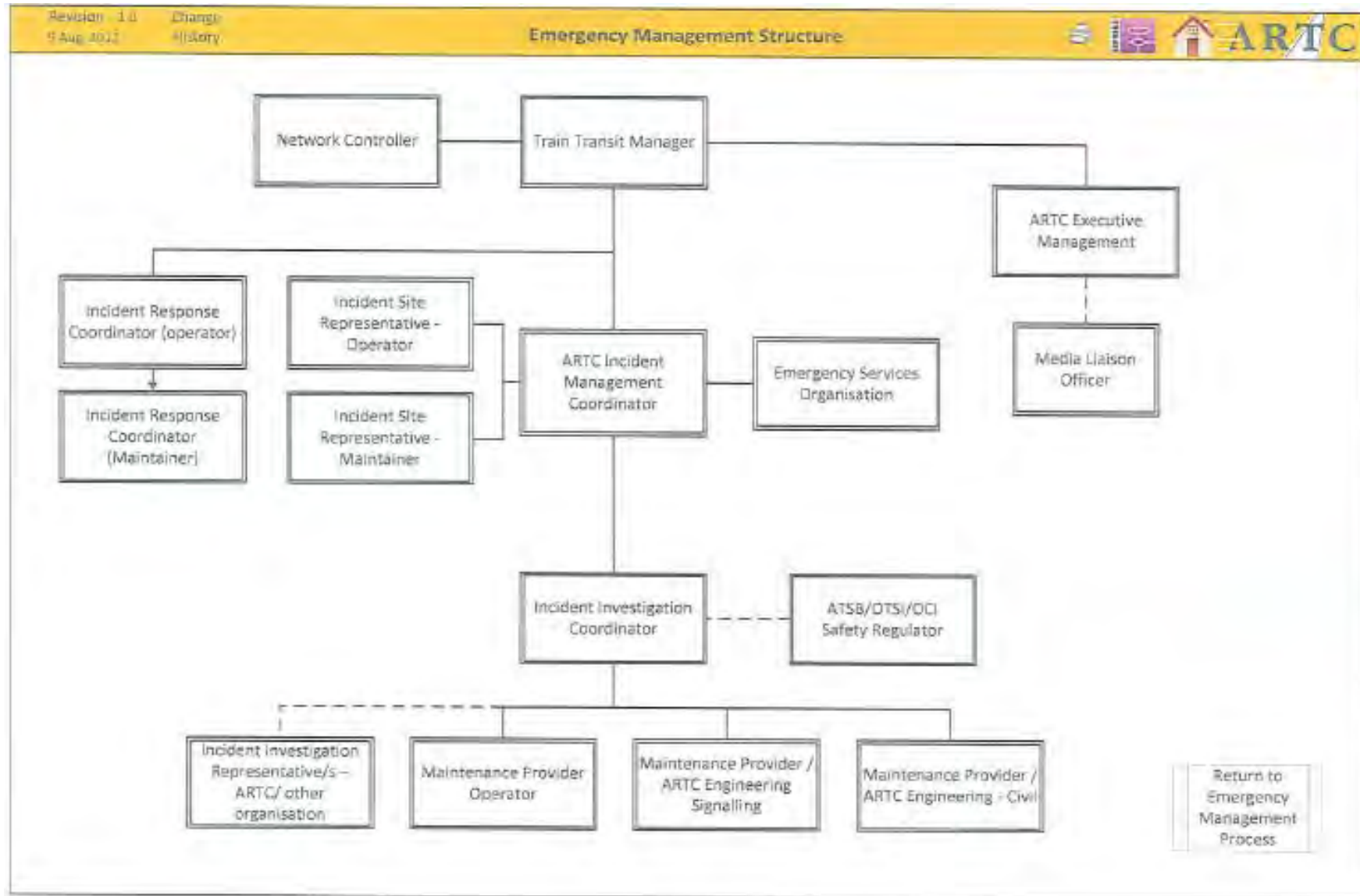


Figure 2-1 Emergency Management Framework





**Figure 2-2 Emergency Management Structure**



## 3. Safety Management System

ARTC has a comprehensive Safety Management System in the form of an online hub containing all safety documents, processes, forms and policies. The SMS provides a robust framework for continued system enhancement to ensure that all ARTC safety documents are captured in one system.

The SMS and associated documentation are accessible on ARTC's intranet to all staff and contractors.

### 3.1 SMS framework

The SMS Framework "page" on the intranet is at **Figure 3-1**. This shows the documentation and other tools available to meet the safety requirements of the ARTC Corporate Plan; legislation; external standards and codes; customer and stakeholder requirements; and ARTC's vision, values and strategic direction. Clicking on each box provides the reader with access to additional information.

### 3.2 SMS key tools

Key tools which form part of the SMS include:

- The ARTC Safety Management Policy at **Appendix 4** which states the organisation's safety goal, its commitment to support a safe and healthy workplace, and its requirements of all employees, contractors and stakeholders;
- ARTC Safety Management Plan V1.0 at **Appendix 5**. This outlines the practices and processes that ARTC will apply to meet its safety and operational objectives within the states in which it operates. The Plan demonstrates compliance with the AS 4292 Series of Standards;
- Interface Agreement - RailCorp Operations on the ARTC Network - Between Rail Corporation New South Wales and Australian Rail Track Corporation Limited at **Appendix 6**. This agreement is about managing risks to safety at the interfaces between the two organisations. Annexure J to this interface agreement is for the Sefton-Macarthur (SSFL Shared Corridor), and is at **Appendix 3**;
- ARTC Risk Management Policy at **Appendix 7** which states the organisation's goals, processes and responsibilities for risk management;
- ARTC Risk Management Procedure RM-01 Version 6.1 at **Appendix 8**. This provides a method of qualitatively identifying the likelihood and consequences of potential incidents, and informs stakeholders of ARTC's process for risk management. The procedure covers the identification, analysis, evaluation, control, review and communication of risks, and is consistent with AS/NZS ISO 31000.

### 3.3 Record keeping

As described in the Safety Management Plan V1.0 at Appendix 5, communication of safety material throughout the organisation is important to ensure the people who need it and may be required to use it have both relevant and accurate information. All ARTC personnel are encouraged to identify and report on potential safety issues and the various safety committees, including the Health and Safety Committees, provides an ongoing forum for participation. ARTC records and stores the information for the SMS electronically through its internet and intranet sites.

ARTC also manages and records information that is used by all Operators on ARTC's network. This includes information such as speed restrictions, track warnings, track possessions, safe working notices, network service plan amendments and heat related speed restrictions. ARTC records this detail as a train notice and distributes to operators.

Certain records and/or information are required to be kept by an organisation such as ARTC. This can be for a variety of reasons including tax, medical, safety or operational. ARTC is obliged, as a Commonwealth Government owned Corporation, to retain all such records as specified under the Archives Act 1983.

Relevant records are available for inspection by the Director-General for DoPI upon request.

Examples of record keeping as part of the SMS are included in **Appendix 9**, and include:

- SMS Framework showing locations of record keeping in Figures A9.2 to A9.12 (Figure A9.1);
- Record keeping as part of the Governance Framework (Figure A9.2);
- Incident Management record keeping (Figure A9.3);
- A number of Safety Performance Measures reporting (Figure A9.4);
- Emergency Management record keeping (Figure A9.5);
- Major Incident Log (Figure A9.6);
- Incident reporting (Figure A9.7);
- Record keeping for Investigations as part of Notifiable Occurrences (Figure A9.8);
- Reporting as part of the SMS Review Framework (Figure A9.9);
- Safety Audit record keeping (Figure A9.10);
- Record keeping for Change Management (Figure A9.11);
- Reporting Corrective Actions (Figure A9.12).

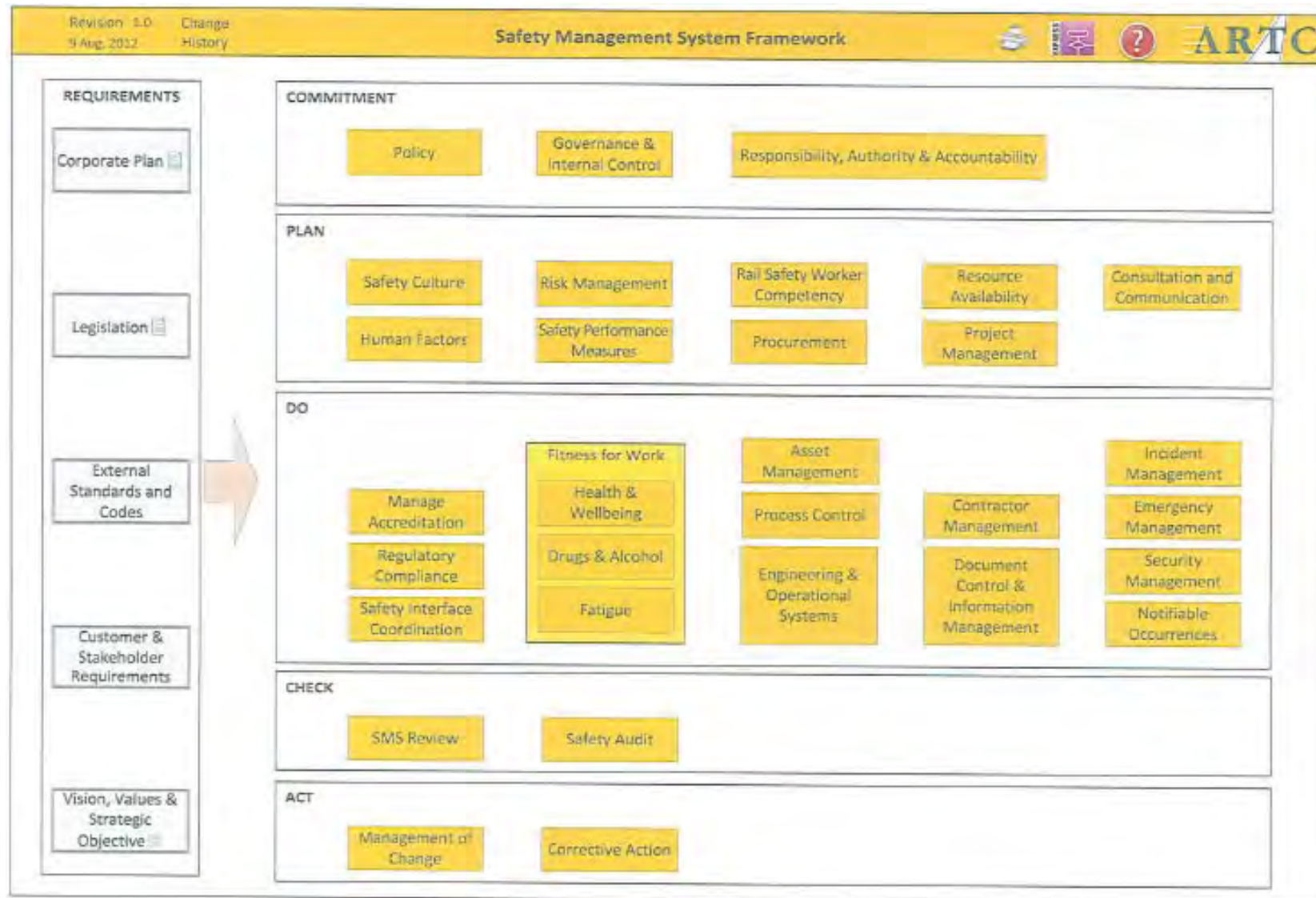


Figure 3-1 Safety Management System Framework



## 4. Dangerous Goods Movements

As part of the OHRMP, CoA 70 requires that ARTC “obtain and monitor records of dangerous goods movements by class. If this monitoring indicates that actual dangerous goods movements are to exceed maximum (year 2018) quantities assumed in the preliminary hazard analysis, ARTC should notify the Director-General giving projected data for the following 10 years together with a Quantitative Risk Analysis to demonstrate that the NSW risk criteria will not be exceeded. This notification should be submitted to the Director-General as soon as the monitoring indicates that an exceedance is likely to occur”.

As noted in the SSFL Environmental Assessment, Volume 2 Technical Paper 1, although dangerous goods consignments are recorded, the quantity of each class of dangerous goods is not analysed in detail by the operators, and it is therefore difficult to estimate accurately the number and size of dangerous goods on both the existing line and on the SSFL following the commencement of operations.

By sampling three representative train services and conducting the IAEA risk ranking methodology, Parsons Brinckerhoff estimated the number of vehicle movements and a frequency for incidents involving dangerous goods per kilometre of SSFL track as shown in Table 4-1 below from Technical Paper 1.

**Table 4-1 Estimated SSFL effect frequencies**

(from SSFL Environmental Assessment, Volume 2, Technical Paper 1, Table 4-18)

<b>Class of dangerous goods</b>	<b>Description</b>	<b>Vehicles per annum (2005)</b>	<b>F 2005 (per annum)</b>	<b>Vehicles per annum (2018)</b>	<b>F 2018 (per annum)</b>
2.1	Flammable gas	63	$3.2 \times 10^{-9}$	163	$3.2 \times 10^{-9}$
2.1	Packaged aerosols	200	$3.2 \times 10^{-9}$	516	$3.2 \times 10^{-8}$
2.3	Toxic gas-high toxicity e.g. chlorine	8	$1.0 \times 10^{-9}$	21	$1.0 \times 10^{-9}$
2.3	Toxic gas-medium toxicity e.g. ammonia	5	$1.0 \times 10^{-9}$	13	$1.0 \times 10^{-9}$
3	Flammable liquids-petrol	3,224	$1.0 \times 10^{-6}$	8318	$3.2 \times 10^{-6}$
3	Other mixed flammables	2,000	$3.2 \times 10^{-7}$	5160	$3.2 \times 10^{-6}$
5.1	Ammonium nitrate	5,000	$3.2 \times 10^{-7}$	12900	$1.0 \times 10^{-6}$
5.2	Organic peroxides	4	$3.2 \times 10^{-9}$	10	$3.2 \times 10^{-9}$
6.1	Toxic liquid	500	$1.0 \times 10^{-6}$	1290	$3.2 \times 10^{-6}$
Mixed	Consolidated consignment-assume toxic liquids	500	$3.2 \times 10^{-7}$	1290	$1.0 \times 10^{-6}$
<b>Total of all events</b>			$3.0 \times 10^{-6}$		$1.2 \times 10^{-5}$

ARTC proposes to conduct a periodic assessment at 2, 4, 6, 8 and 10 years from the commencement of operations of the SSFL on 23 December 2012, for a sample of train services. As per the methodology used in the Environmental Assessment Technical Paper 1, it is proposed that the sample will consist of three diverse train services - Superfreighter, Steel and Port Shuttle - that operate on the SSFL. ARTC will request and compile specific information from train operators that pertain to the classes of dangerous goods moved on the three sample train services to determine whether the actual dangerous goods movements are to exceed the maximum (2018) quantities assumed in the preliminary hazard analysis. Where results of monitoring indicate exceedances are likely to occur, ARTC will notify the Director-General within seven days and provide projected data for the following 10 years together with a Quantitative Risk Analysis to demonstrate that the NSW risk criteria will not be exceeded. ARTC will

provide the required information to the Director General within 30 days of notification of monitoring results.



# **Appendix 1    ARTC Incident Management Manual TA 44 Version 4.6**





AUSTRALIAN RAIL TRACK CORPORATION LTD

# Incident Management Manual

Document TA 44

Version 4.6

EMERGENCY PHONE NUMBERS	
NETWORK CONTROL CENTRE WEST	08 8217 4540
NETWORK CONTROL CENTRE NORTH	02 4902 9410
NETWORK CONTROL CENTRE SOUTH	02 6924 9869
EMERGENCY SERVICES	000

UNCONTROLLED when printed

## Document Status Record

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4.3	27 November 2006	Kerry Kovacs	Andrew Kitto	ARTC Safety Committee
4.4	6 July 2011	Ron Kempster	Sandra Wilson-Ryke	ARTC Safety Committee
4.5	1 August 2012	Sandra Wilson-Ryke	Matthew Walsh	ARTC Safety Committee
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Date	Page / Reference	Detail	Authority
October 2000	Amendments	Inclusion of amendments register	
October 2000	Appendix A	Change to airstrip management and detail	ARTC Management
September 2003	Various	Issue 3 to take account of changed positions and organisation structure	
August 2004	Various	Document formatting changed, content reviewed, changes specific to the New South Wales operation inserted	ARTC Safety Committee 26 <sup>th</sup> August 2004
September 2004	Various	Definition of Train Controller expanded to include Area Controller and Signaller	GM Risk and Safety 3 <sup>rd</sup> September 2004
November 2005	Various	Document modified to reflect the relocation of Train Control Function from Sydney to Junee Maps included in Appendix E	GM Risk and Safety 18 <sup>th</sup> November 2005
November 2006	Various	Reference to AS 5022 changed to AS 4292.7	ARTC Safety Committee
July 2011	Various	Various + Update to include coordination details for management of incidents on the Metropolitan Freight Network NSW. Change of positions due to Organisational restructures.	ARTC Safety Committee
August 2012	Appendix D	Inclusion of reference to RailCorp Rules & Procedures	ARTC Safety Committee
November 2012	Various	Review and update to include Southern Sydney Freight Line (SSFL)	

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## 2. Incident site representative - Maintainer

### 3. Incident site representative - Operator

#### 4. Incident investigation coordinator

## 5. Maintenance Provider / ARTC Engineering - Civil

1.



## **6. Maintenance Provider / ARTC Engineering - Signals**

Reports to and works under the direction of the Incident Investigation Coordinator. Has the right to request that evidence not be disturbed.

## **7. Maintenance provider - Operator**

Reports to and works under the direction of the Incident Investigation Coordinator. Has the right to request that evidence not be disturbed.

# **1. Purpose of this incident management plan.**

To provide, in a systematic manner a work procedure for managing recovery, investigation and reporting of incidents occurring on the ARTC Network.

To comply with the requirements of Australian Standard 4292 – Rail safety management.

# **2. References.**

Australian Rail Track Corporation – National Code of Practice and Addendum  
Rule books applicable to the New South Wales rail network.  
TA 20 Victorian Main Line Operations.  
Australian Standard 4292 1 – 6 (Rail safety management).  
Australian Standard 4292.7 (Guidelines for rail safety investigation).  
Rail Safety Legislation of the relevant states.

# **3. Definitions and abbreviations.**

## **Access agreement**

A contract giving an Operator access to the Australian Rail Track Corporation network.

## **ARTC**

Australian Rail Track Corporation.

## **ATSB**

Australian Transport Safety Bureau, responsible for investigations on the defined interstate rail network, but who may delegate this authority.

## **Board of Inquiry**

A panel of persons, nominated by ATSB, Department of Transport or rail organisations convened to inquire into rail incidents.

## **Dangerous Goods**

Any substance or article prescribed as dangerous goods under the Dangerous Goods Act 1975 (as amended).

## **Rail Safety Regulator**

❖ In Queensland	Department of Transport and Main Roads
❖ In New South Wales:	Independent Transport Safety Regulator
❖ In Victoria:	Transport Safety Victoria
❖ In South Australia:	Department of Transport, Energy and Infrastructure
❖ In Western Australia:	Department of Transport

## **Disaster**

A term used commonly to describe a particularly serious event.

## **Emergency Operations Centre**

A control centre established by the Emergency Operations Controller.

### **Emergency Operations Controller**

A senior member of the Police service in charge at the site.

### **Emergency**

An incident which requires a significant and co-ordinated response.

### **Emergency Services Organisation**

Means the Police Service, Fire Brigades, Country Fire Authorities, Ambulance Service, State Emergency Service, Volunteer Rescue Association or any other agency which manages or controls an accredited rescue unit. **NOTE** - Some names may change from State to State.

### **Employees**

Persons employed by a rail organisation, including directors, agents and other relevant persons, including volunteers and contractors for whom the organisation is liable under statute or at common law as employer also includes seconded staff.

### **General Manager Risk and Safety**

The person required to provide custodianship of ARTC's Safety Management System and manage ARTC's overall safety compliance with the requirements of AS 4292.1 and ARTC's conditions of accreditation. The position has the authority to initiate safety investigations and approve incident management.

### **Incident Investigation Coordinator**

A person nominated by ARTC to co-ordinate the gathering of evidence, and the testing of vehicles or infrastructure involved, immediately following an incident. This person shall report to and take direction from the Incident Management Coordinator. In some instances this person may be the Incident Management Coordinator.

### **Incident Investigation Representative**

A person nominated by an organisation involved in an incident to assist in the gathering of evidence, and the testing of vehicles or infrastructure involved, immediately following an incident who will work under the direction of the Incident Investigation Coordinator.

### **Incident Management Coordinator (ARTC) (See also Rail Commander)**

A person nominated by, but not necessarily from, ARTC to take control, or to form the liaison point with Emergency Services Organisations taking control, of an incident site.

### **Incident Management Manual**

This manual and its appendices

### **Incident Management Plan**

Procedures prepared in response to this Manual which set out how the responsibilities of each Operator, Service Provider or Maintenance Provider / ARTC Engineering are to be implemented.

### **Incident Management Team**

The group, comprising the Incident Site Representatives and chaired by the Incident Management Coordinator, formed on site to manage the recovery and service restoration processes.

### **Incident Response Coordinator**

The person or persons nominated by a rail organisation to provide a 24 hour, 7 day point of contact and to provide initial incident response within that organisation.

### **Incident Site Representative**

The person nominated by a rail organisation to attend the incident site and manage all site activities of that organisation under the direction of the Incident Management Coordinator.

### **Incident**

An occurrence, as defined in AS4292 Part 1 Appendix C, involving or affecting operations on the Network, which has resulted in, or has the potential to cause:

- ❖ Death or injury
- ❖ Property damage
- ❖ Disruption to train services; or
- ❖ Adverse environmental consequences.

### **Infrastructure owner**

The body responsible by reason of ownership, control or management, for the construction and maintenance of track, civil and electrical traction infrastructure or the construction, operation or maintenance of train control and communication systems, or a combination of these, or a person or body acting on its behalf. (AS 4292)

### **Joint inquiry or Investigation**

A formal inquiry into the cause of an incident initiated by the ATSB or the relevant Department of Transport.

### **Joint report**

An inquiry into the cause of an incident initiated by two or more of the involved organisations.

### **Maintenance Provider / ARTC Engineering**

An organisation contracted to perform maintenance of ARTC infrastructure assets.

### **MFN**

The ARTC Sydney Metropolitan Freight Network

For the duration of transitional arrangements for the staging of the Sydney Metropolitan Freight Network take-up in 2011 and 2012, some network control services are provided by RailCorp, through the RailCorp RMC.

ARTC take up of the remainder Sydney Metropolitan Freight Network (MFN) is dependent on successful negotiation with Transport NSW.

### **Network**

All or any part of the rail infrastructure facilities controlled, owned, leased or managed by the Australian Rail Track Corporation. Reference to "The Network" throughout this document refers to the definition of "Network" as shown below.

**In Queensland** the network consists of the following rail corridor

- ❖ Border Loop Tunnel to Signal AR1 located adjacent to Leoroyd Road Bridge approximately 15.4 km south of Brisbane

**In New South Wales** the network consists of the following rail corridors,

#### The Leased Network

- ❖ Border Loop tunnel to Islington Junction
- ❖ Macarthur to Albury
- ❖ Moss Vale to Unanderra
- ❖ Cootamundra to Goobang Junction via Stockinbingal
- ❖ Goobang Junction to and including Broken Hill
- ❖ Goobang Junction to Werris Creek via Narromine, Dubbo, Marrygoen, Binnaway and Gap
- ❖ Hunter Valley Network including Kooragang and Port Waratah

- ❖ Metropolitan Freight Network including Port Botany

#### The Country Regional Network

- ❖ Bowenfels to Goobang Junction (via Wallerawang, Blayney, Orange Jct and Molong)
- ❖ Wallerawang to Gulgong (via Kandos)
- ❖ Blayney to Demondrille (via Cowra)
- ❖ Koorawatha to Greenethorpe
- ❖ Orange Junction to Dubbo
- ❖ Werris Creek to Dumaresq
- ❖ Gap to North Star
- ❖ Narrabri Junction to Walgett
- ❖ Burren to Merrywinebone
- ❖ Moree to Moree Agripark
- ❖ Camurra to Weemelah
- ❖ Binnaway to Gwabegar
- ❖ West Tamworth to Westdale
- ❖ Dubbo to Coonamble
- ❖ Narromine to Nyngan Junction
- ❖ Nevertire to Warren
- ❖ Nyngan Junction to Cobar
- ❖ Bogan Gate to Tottenham
- ❖ Picton to Hill top
- ❖ Mittagong Jct. - Braemar
- ❖ Joppa Junction to Queanbeyan
- ❖ Queanbeyan to Canberra
- ❖ Stockinbingal to Griffith (Via Temora)
- ❖ Temora to Ungarie
- ❖ Barmedman to Rankin Springs
- ❖ West Wyalong to Burcher
- ❖ Ungarie to Naradhan
- ❖ Ungarie to Lake Cargelligo
- ❖ Junee to Griffith (via Narrandera and Yanco)
- ❖ Griffith to Hillston
- ❖ Yanco to Willbriggie
- ❖ The Rock to Boree Creek

**In Victoria** the network consists of the following rail corridors

- ❖ From, but not including Albury to the Dudley St. overpass at Spencer St. Melbourne
- ❖ From Tottenham to the Victoria / South Australia Border
- ❖ From Maroona to Portland
- ❖ From Benalla to Oaklands

**In South Australia** the network consists of the following rail corridors

- ❖ From the Victoria / South Australia Border to the South Australia / Western Australia border
- ❖ From Dry Creek to Pelican Point
- ❖ Crystal Brook to but not including Broken Hill,
- ❖ From Port Augusta to, but not including Whyalla

**In Western Australia** the network consists of the following rail corridors

- ❖ From the South Australia / Western Australia Border to but not including Kalgoorlie

#### **Operator**

The organisation owning the path of the train involved in an incident.

#### **Rail Commander (New South Wales)**

Performs the functions of the Incident Management Coordinator as referenced in this document.

i.e. A person nominated by, but not necessarily from, ARTC to take control, or to form the liaison point with Emergency Services Organisations taking control, of an incident site.

### **RMC**

RailCorp Rail Management Centre

### **Service contract**

A contract between a Service Provider or an Operator and ARTC.

### **Service provider**

An organisation contracted to an Operator to provide locomotives, wagons and crews or other service to enable the operation of the train on the Network.

### **Site coordination centre**

A facility, incorporating communications, provided on an incident site as required by the Incident Management Coordinator.

### **Track Safety Awareness**

Training in the risks present and safety measures necessary when a person is on or near track.

### **Network Control**

The control and regulation of all train movements to ensure the safe, proper and efficient operation of the Network.

For the duration of transitional arrangements for the staging of the Sydney metropolitan Freight Network take-up in 2011 and 2012, some network control services are provided by RailCorp, through the RailCorp RMC.

ARTC take up of the remainder Sydney Metropolitan Freight Network (MFN) is dependent on successful negotiation with Transport NSW.

### **Network Controller**

A person charged with the duty of providing train control.

### **Train Transit Manager or nominee**

A person charged with the duty of providing oversight of Train Control and Customer Service provisions on behalf of the Australian Rail Track Corporation over the ARTC Network.

**NOTE :** This document has been prepared for use throughout the ARTC Network and as such will be used in the States of Queensland, New South Wales, Victoria, South Australia and Western Australia.

## 4. Overview.

### 4.1 ARTC Incident Management Policy

ARTC shall, in conjunction with Operators, Service Providers and Maintenance Providers have effective incident management procedures established to ensure:

- a) That each organisation involved in an incident is aware of its individual responsibilities.
- b) That procedures to manage these responsibilities are documented and tested to provide the best possible response.
- c) That the procedures established to manage each organisation's responsibilities effectively address the following:
  - ❖ A rapid and appropriate response.
  - ❖ The protection of life, property and the environment.
  - ❖ The safety of persons involved in, and responding to, an incident.
  - ❖ The continued protection of property involved in, and during the response to, an incident
  - ❖ Minimisation of delays.
  - ❖ The interaction between organisations and agencies involved in the incident are managed effectively.
  - ❖ Compliance and integration with legislation and State Emergency Plans.
  - ❖ Timely and effective investigation of the incident cause.
  - ❖ Identification of training and resource requirements.

### 4.2. Scope of the Incident Management Manual

The Incident Management Manual details the policy and responsibilities for the management of rail incidents, which either occur within, or impact upon the Network.

The Manual's objective is to ensure that ARTC, Operators, Service Providers and Maintenance Providers have established an integrated strategy for the response to, and management of, rail incidents as follows:

- ❖ Reporting and classification of the incident.
- ❖ Recovery procedures.
- ❖ Train management of restricted services.
- ❖ Human and physical resource management.
- ❖ Communications and the media.
- ❖ Restoration of the track and infrastructure.
- ❖ Resumption of access and other services.
- ❖ Minimisation of adverse environmental impacts.
- ❖ Initiation of investigations or inquiries.
- ❖ Training and exercises.

### 4.3. Organisation Incident Management Plans

The ARTC Incident Management Manual is a high level document which details key organisational responsibilities. The procedures to manage these are the responsibility of the individual organisations.

The Incident Management Plans developed by each Operator, Service Provider and Maintenance Provider shall detail the procedures and resources with which the organisation will respond to and manage incidents.

Each plan will form part of an Access Agreement or Service Contract with ARTC and will be complementary to this Manual.

The plans must address but are not limited to the following types of incidents:



- ❖ Derailment and collision, fire and life safety, bomb threat, equipment, rolling stock or infrastructure failure, environmental issues, dangerous goods spill.

The plans must consider:

- ❖ Training of staff, provision of resources, response in remote or difficult access locations, interfaces with other organisations, interface with the State DISPLAN related to incident management.
- ❖ A controlled copy of the Incident Management Plans are to be provided to ARTC, who shall provide a consolidated set as appropriate to the Train Transit Manager or nominee and other ARTC staff requiring same.

Operator's plans should include such items as critical details of the features and operation of rolling stock relevant to incident management. Typically, this shall include such information as the location of emergency exits from passenger cars; vehicle dimensions and mass, vehicle lifting points and fuel cut off points and will include diagrams as appropriate.

Maintenance Provider / ARTC Engineering's plans shall contain such items as details of road and personnel access to all areas, location of emergency equipment, fire hydrants, electric isolation points and communication facilities. Plans are to include diagrams, maps or photographs that can be readily referred to in an emergency.

Plans are to be kept current and updates forwarded to the ARTC Executive General Manager Strategy & Growth.

#### 4.4. Train Control

ARTC provides its own train control services on its Network. ARTC Network control Centres are located at Mile End, Broadmeadow and Junee. ARTC also provides network control services to the Port of Melbourne Corporation port at Appleton Dock, Melbourne.

The following network control boards are located within the Adelaide Network Control Centre

Network Controller	Areas of Control
East/West TOCO	Broken Hill (exclusive) to Goobang <b>Junction/Parkes (exclusive)</b>
Parkes TOCO	Bogan Gate to Bogan Gate North Goobang Junction/Parkes (inclusive) to <b>Stockinbingal (exclusive)</b> Broken Hill yard
ABS Broken Hill	Crystal Brook (exclusive) to Broken Hill (exclusive)
Melbourne Metro	Somerton (inclusive) to Moonee Ponds Creek, Appleton Dock and North Dynon (inclusive)
ASW	Tottenham (exclusive) to Pyrenees (exclusive)
Vic North/West	Pyrenees (inclusive) to <b>Wolseley (exclusive)</b> Maroona (exclusive) to Portland (exclusive)
South CTC	Wolseley (inclusive) to Mile End (exclusive)
Adelaide Metro	Mile End (inclusive) to Dry Creek <b>North Junction (inclusive)</b> Dry Creek to Pelican Point (inclusive)
West CTC	Dry Creek North Junction (exclusive) to Spencer Junction (inclusive)
Tarcoola Train Order	Spencer Junction (exclusive) to <b>Tarcoola (inclusive)</b> Spencer Junction (exclusive) to Whyalla (exclusive)
Cook Train Order	Tarcoola (exclusive) to Cook (inclusive)
Parkeston Train Order	Cook (exclusive) to West Kalgoorlie (exclusive)

**NOTE:** At certain times the boards may be split or amalgamated to cater for varying workloads.

The following network control boards are located within the Network Control Centre North

Network Controller	Areas of Control
Lower Hunter Middle Hunter	Islington (inclusive) to Thornton (inclusive) & Bloomfield Branch line Thornton (exclusive) to Singleton (inclusive) & Telarah Mt Thorley – Bulga – Wambo Branch lines
Upper Hunter (1) Upper Hunter (2)	Singleton (exclusive) to Mangoola (exclusive) and Aberdeen (exclusive) Aberdeen (inclusive) to Werris Creek (exclusive) Mangoola (inclusive) to Gulgong (exclusive)
Upper Hunter (3)	Mangoola (inclusive) to Gulgong (exclusive) – Monday to Friday only (0700-1500)
North Coast A Coast B	Werris Creek (inclusive) to Turravan (inclusive) Telarah (exclusive) to Kempsey (exclusive) Kempsey (inclusive) to Acacia Ridge (exclusive) Number 1 Down Home Signal
Coast C	Taree (inclusive) to Boambee Beach (inclusive) – Monday to Friday only (0700-1500)
Train Order Control	Turravan (inclusive) to Moree Moree to North Star Camurra to Camurra West (inclusive)
West	Goobang Junction (exclusive) to Dubbo (inclusive) Dubbo (inclusive) to Merrygoen (inclusive) Merrygoen (inclusive) to Gulgong (inclusive) Merrygoen (inclusive) to Werris Creek (Gap) (exclusive)

The following network control boards are located within the Network Control Centre South

Network Controller	Areas of Control
Main South A	<b>Maldon</b> (exclusive) to Goulburn/Joppa <b>Junction</b> (inclusive) Moss Vale (inclusive) to Unanderra (exclusive)
Main South B	Cootamundra (inclusive) to Stockinbingal ( <b>inclusive</b> ) Joppa Junction (exclusive) to <b>Cootamundra</b> (inclusive)
Main South C	<b>Albury (inclusive) to Somerton Vic (exclusive)</b> Benalla (inclusive) to Oaklands (inclusive)
Main South D	<b>Cootamundra (exclusive) to Albury (exclusive)</b>
Sydney 1	Botany yard
Sydney 2	<b>Enfield West via Sefton SSFL to Maldon (inclusive)</b>

#### 4.5. Natural Disasters

The requirement for track workers to patrol lines for natural disasters such as floods and bush fires is contained within the Code of Practice / Rule Books applicable to the Network.

In the event of a major natural disaster the details as contained in this Incident Management Manual shall be implemented.

#### 4.6. Parallel Rail Lines

Should there be any incident on the above lines immediate action shall be taken to warn the network control centre for the location(s) and in turn action taken to advise all approaching trains. See also Sydney Metropolitan Freight Network appendix on page 44 for ARTC/RailCorp shared corridor protocol overview.



On being advised of an incident on another owner's line the ARTC Network Controller shall take immediate action to advise any approaching trains on the ARTC network.

Refer to appendix "A" for further information.

#### 4.7. [Interface locations](#)

If an operational incident occurs at an interface location, it is the responsibility of the Incident Management Coordinator (nominated as the "Rail Commander" in NSW) and the Infrastructure Manager to refer to the applicable Safety Interface Agreement.

The incident shall be controlled by the organisation on whose geographic area the incident occurred.

Refer to appendix "A" for further information.

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## 5. Incident reporting and assessment

### 5.1. Incident reporting

#### 5.1.1. Incidents reported by the public

Incidents may be reported directly by the public to Network Control, the nearest Operator, Service Provider, Maintenance Provider / ARTC Engineering or Emergency Service.

When an incident is reported by a member of the public, all relevant information, including full details of the incident, name, address and contact phone number of the person reporting the incident is to be recorded.

The employee informed of the incident shall be responsible for advising Network Control of the full particulars in relation to the reported incident. The Network Controller shall, on receipt of this advice take immediate action to notify, in order, any approaching trains which may impact on the incident including trains on parallel lines under another Network Control Centre, Emergency Services if required, and the Train Transit Manager.

The Network Controller shall immediately advise the Train Transit Manager or nominee.

The Train Transit Manager shall be responsible for advising other Network control locations.

#### 5.1.2. Incident reported by employees

When an employee of ARTC, Operator, Service Provider or Maintenance Provider / ARTC Engineering becomes aware of an actual or potential incident, that employee is to take all necessary steps to ensure that the incident site is protected and that Emergency Services are contacted where required.

The employee is to immediately advise the Network Controller of the nature and location of the incident and provide all relevant details. The Network Controller shall immediately advise the Train Transit Manager or nominee.

The Train Transit Manager or nominee shall be responsible for advising other Network Control Centres.

The employee is to immediately implement any directions given by the Network Controller and take all necessary steps to lessen the impact of the incident and to protect the incident site.

### 5.2. Incident definition

For the purposes of this document, incidents occurring within, or impacting upon, the Network will be categorised and defined as follows:

**NOTE:** The following categorisation of incidents refers to incident management only, it does not equate with the incident definition and reporting classifications contained in AS 4292 part 1 (2006)

#### 5.2.1. Level 3 incident

This shall mean an occurrence where minor injury, disruption, damage or environmental impact to the Network, has occurred.

Level 3 incidents will typically include infrastructure irregularities, such as signalling, track or equipment failures which do not significantly affect train operations.

These incidents are to be reported to the Network Controller who will ensure that relevant details are recorded and that a Level 3 response has been implemented and is adequate.

These incidents will not require a sustained response from other organisations or outside resources and will be managed and investigated by the line manager of the organisation involved.

Incidents which are totally under the control of an Operator and do not impact on the Network will be included within the scope of this incident level. This will include incidents such as:

- ❖ Persons falling on a platform or within station confines, failure of an organisation's rolling stock or equipment, doors not closing on passenger trains, dangerous goods spillage where the vehicle concerned can be isolated in a yard etc.

**NOTE:** With the exception of the provisions for the notification of the relevant organisation by Network Control, this Manual does not apply to Level 3 incidents.

#### 5.2.2. Level 2 incident

This shall mean an occurrence, involving or affecting operations on the Network, which has resulted in, or has the potential to result in one or more of the following:

- ❖ The death or serious injury of persons, the health or safety of persons being affected, significant damage to property or infrastructure significant disruption to train services.
- ❖ Significant environmental impact, external resources and control required on site.
- ❖ A sustained co-ordinated response is required.

The incident may or may not originate on the Network; however, any off site incident which affects or threatens access to the Network will be treated as falling within the scope of this incident level. This will include incidents such as:

- ❖ Gas leak, bomb threat, bush fire, any death or serious injury.

#### 5.2.3. Level 1 incident

This shall mean an occurrence which has been classified as an emergency, requiring a sustained response, by State Emergency Services. Unless otherwise noted a Level 1 incident will be treated as for a Level 2 incident within this Manual.

### 5.3. Incident assessment

The Train Transit Manager or nominee shall determine the level of the incident and implement the appropriate response in accordance with the requirements of this Manual.

## 6. Organisational responsibilities

### 6.1. Australian Rail Track Corporation

The ARTC shall specify the role and responsibilities for Operators, Service Providers and Maintenance Providers / ARTC Engineering to effectively and efficiently co-ordinate the response to and management of incidents affecting the Network. ARTC will respond to an incident as follows:

#### 6.1.1. Media

The co-ordination of the dissemination of information to organisations concerned and the Media shall be provided by ARTC.

#### 6.1.2. Investigation

Where necessary, ARTC shall ensure that an investigation of the evidence at the incident site is initiated, providing resources and co-ordination as required.

#### 6.1.3. Dispute resolution

Conflict resolution with regard to the allocation of changed train paths, or the conduct of the on site incident investigation process, shall be provided by ARTC.

### 6.2. Network Control

ARTC shall provide the network control function during all phases of an incident including the restoration process. This may involve the issue of appropriate authorities for track work to facilitate the process.

#### 6.2.1. Response initiation

The initiation of the response to reported incidents shall be the responsibility of the Train Transit Manager or nominee. This function shall include, but not be limited to, providing a central point of contact and ensuring that incident management is performed within the requirements of the relevant safe working procedures. The check list, forming Appendix "C" to this document lists the persons and organisations that shall be notified.

The Train Transit Manager or nominee from the information reported, shall in conjunction with other ARTC Management, determine the level of the incident, the level may, on receipt of further information, be amended.

The initiation of the response to a Level 1 or 2 Incident shall be the responsibility of the Train Transit Manager or nominee.

#### 6.2.2. Overall co-ordination

The Train Transit Manager or nominee shall ensure the overall co-ordination of Operators, Service Providers and Maintenance Provider / ARTC Engineering personnel associated with the restoration of services or implementation alternate modes of transport. Initial co-ordination will commence with a telephone conference call at a time determined by the Train Transit Manager or nominee to enable an assessment of the situation to be obtained. The telephone conference will be chaired by an ARTC representative and will determine the time for "follow up" telephone conference call. This shall be an ongoing process until such time as services are resumed.

#### 6.2.3. Reporting

The Train Transit Manager nominee shall ensure that a report of the incident is generated in accordance with relevant safe working standards.

#### 6.2.4. Site coordination

In the initial phase of the emergency the site Coordinator will, in all probability, be a member of the train crew at the site.

All communications from the site to Network Control and Emergency Services shall be through the site Coordinator.

Site management, to oversee and co-ordinate all aspects of the recovery and restoration in conjunction with site representatives of each of the involved organisations, shall be the responsibility of a person nominated by ARTC.

This person will be termed the Incident Management Coordinator (Rail Commander in NSW). The person selected will be a senior person capable of co-ordinating the various functions of the incident site and will have the necessary levels of competence to perform the duties of this position.

The nomination is to be approved by the ARTC General Manager Risk and Safety.

When an incident involves a parallel rail line under the control of another track owner, the owner of the line on which the incident occurred shall provide the site Coordinator. See Appendix B

**EXCEPTION:**

When the overhead power supply is involved (Metro Trains in Victoria, Rail Corp in NSW) a representative from the respective organisation shall take charge of the site until such time as the overhead is de-energized and site made safe in respect of electrical power.

The Train Transit Manager or nominee shall ensure that the name of the current Site Coordinator, and the name of any relief Site Coordinator, if known, is conveyed to all site attendees.

**6.3. The operator**

The Operator is to respond to the incident as set out in this Manual, or as directed by ARTC under the conditions of its Access Agreement, as follows:

**6.3.1. Response coordination**

Each Operator is to nominate a person, or persons, to co-ordinate that organisation's response to incidents. For each incident this person shall be termed the Incident Response Coordinator for that organisation. An Incident Response Coordinator is to be available for call on a 24 hour per day, seven days per week basis.

Each Operator shall provide to the ARTC Train Transit Manager or nominee, either full details of the nominees' business and after hours contact numbers, or a 24-hour telephone number.

**6.3.2. Site restoration**

The Operator shall be responsible for arranging recovery of its damaged or disabled vehicles and arranging for alternative transport or transshipment of its passengers or freight. The Operator shall also be responsible for the welfare of passengers and train crewmembers, their agents, contractors and other invitees.

Should the Operator be transporting dangerous goods or environmental sensitive substances, the Operator shall be responsible for promptly informing the Fire Brigade or other Emergency Services of that fact and supplying such information as is necessary for their response.

Where a sustained co-ordinated response is required on site, each involved Operator shall nominate a person to attend the incident site to represent the organisation.

This person will be termed the organisation's Incident Site Representative who shall report to and take direction from the Incident Management Coordinator.

The Incident Site Representative is to have the appropriate level of authority to manage site issues and is to be able to fully commit the resources of the organisation.

#### **6.3.3. Incident site management**

Each Operator shall report to the Incident Management Coordinator for approval of action plans.

### **6.4. Maintenance provider / ARTC Engineering**

The Maintenance Provider / ARTC Engineering shall respond to the Incident as set out in this Manual, or as directed by ARTC under the conditions of the maintenance contract.

**NOTE:** In the New South Wales Network, ARTC Engineering shall assume the responsibilities associated with the position of maintenance provider.

#### **6.4.1. Response coordination**

Each Maintenance Provider / ARTC Engineering shall nominate a person or persons to co-ordinate the organisation's response to incidents. For each incident this person shall be termed the Incident Response Coordinator for that organisation. An Incident Response Coordinator shall be available for call on a 24 hour per day, seven days per week basis.

Each Maintenance Provider / ARTC Engineering shall provide to the Train Transit Manager or nominee either full details of the nominees' business and after hours contact numbers, or a 24-hour telephone number.

#### **6.4.2. Site restoration**

The Maintenance Provider / ARTC Engineering shall arrange restoration and maintenance of the infrastructure and the provision of facilities required to support those managing the incident site.

Where a sustained co-ordinated response is required on site, the Maintenance Provider / ARTC Engineering shall nominate a person to attend the site to represent the organisation.

This person shall be termed the organisation's Incident Site Representative who shall report to and take direction from the Incident.

Management Coordinator, the Incident Site Representatives shall have the appropriate level of authority to manage site issues and shall be able to fully commit the resources of the organisation.

#### **6.4.3. Incident site investigation**

Each Maintenance Provider / ARTC Engineering shall nominate a person or persons capable of carrying out testing, examination and data collection immediately following an incident. This person(s) will be termed the organisation's Incident Site Investigator.

A representative (s) should be nominated for each engineering discipline.

The representative (s) nominated for each incident shall be a person or persons who is or are appropriate to the role and who will have the required competence for the level of investigation to be undertaken.

The representative (s) shall be responsible for the co-ordination of any materials or components identified to be quarantined, including safe handling, processing and storage so as not to be affected by the environment.

## **6.5 Emergency Services Organisations**

Representatives of Emergency Services Organisations may be in attendance depending on the nature and size of the incident.

These Services may take charge of an incident site. Where more than one Emergency Service attends, the site will be under the overall command of the relevant Police Service, except for a dangerous goods spill where the Fire Service will take charge. ARTC, Operators, Service Providers and Maintenance Provider / ARTC Engineering shall work with these services and as directed by them.

## **6.6 Media personnel**

In all instances, including those where external control has been exercised, each rail organisation shall only comment to the extent that the incident has affected its own operation and on the measures implemented to minimise these effects.

Media officers from all affected organisations should confer prior to discussing any aspects of the incident with the media.

Organisation representatives must not comment on, or speculate on, the cause of the incident, or the response to the incident.

The Incident Management Coordinator shall be responsible for providing full details of actions being taken, forecast restoration times and other details as requested, to the ARTC, who will make available this information to each of the organisations involved.

When external agency control has been activated media communication is to be co-ordinated through the nominated media liaison officer as appointed by the Emergency Operations Controller.



## **7. Roles and responsibilities of incident management representatives**

### **7.1. Network Controller**

Upon receipt of notification of an incident the Network Controller shall:

- ❖ Advise any approaching movements.
- ❖ Advise other Network Controllers where their area of control may be involved.
- ❖ Advise Emergency Services if required.
- ❖ Advise the Train Transit Manager or nominee.
- ❖ Determine the circumstances and severity of the incident and initiate a response in accordance with the directions of the Train Transit Manager or nominee.

### **7.2. Train Transit Manager or nominee**

Upon receipt of notification of an incident the Train Transit Manager or nominee shall:

- ❖ Advise the relevant Network Controller if that person has not been the source of the initial information and seek information as to the circumstances and severity of the incident.
- ❖ Ensure any other affected network control centre has been advised.
- ❖ Direct and assist the Network Controller to initiate a response to the incident in terms of Emergency Services.
- ❖ Implement the requirements of this manual in relation to the notification of ARTC, Operators and Service and Maintenance Provider / ARTC Engineering.
- ❖ Ensure that the Incident Response Coordinator for each Operator, Service Provider and Maintenance Provider / ARTC Engineering involved, or potentially involved, is advised of all applicable details in relation to the incident. This will be an initial phone call followed by a telephone conference call at a predetermined time or other arrangements as agreed.
- ❖ Ensure that alternative or modified train operations are implemented, in conjunction with Operators involved, taking into consideration their customer service requirements or any directions from ARTC.
- ❖ Ensure that all event safe working requirements are met, including the removal of overhead power as required.
- ❖ Ensure that the relevant ARTC Corridor General Manager is provided with regular progress reports in relation to the restoration of services.
- ❖ Seek written authorisation and indemnity from the Operator and Service Provider(s) (where applicable) for the implementation of the recovery plan including, where necessary, the provision of a break down consist.
- ❖ Maintain a record of any advice given and the time it was provided on the prescribed form.

### **7.3. Incident response coordinator**

It shall be the responsibility of each organisation's Incident Response Coordinator to:

- ❖ Initiate and implement incident response within that organisation in accordance with the organisation's Incident Management Plan.
- ❖ Ensure that only those persons with an active role in the incident management attend the site
- ❖ Arrange the attendance of specialist personnel as required.
- ❖ Ensure that the relevant Rail Safety Regulator, and other Statutory Authorities, are notified in accordance with the requirements of the organisation's Accreditation and the relevant Acts.



#### 7.4. Incident Management Coordinator (nominated as the “Rail Commander” in NSW)

The major role of this “on site” position shall co-ordinate the restoration activities of the Operator, Service Provider and Maintenance Provider / ARTC Engineering.

The person nominated shall promptly attend the incident site. In the interim, the Train Transit Manager or nominee will arrange for the nearest suitable qualified person to assume the duties of Incident Management Coordinator. This person shall perform the duties of this position under the directions of the Network Controller, until the nominated person arrives on site.

The Incident Management Coordinator shall be the authority to direct the resources of Operators, Service Providers and Maintenance Provider / ARTC Engineering involved and to utilise external resources as required facilitating restoration of the Network. This authority will be exercised in consultation with the appropriate organisation and in accordance with the conditions of its contract.

In instances where the Police Service assumes overall command the Incident Management Coordinator shall:

- ❖ Act as the representative for the rail organisations, liaison with and assisting Emergency Services as required until such time as the control of the incident is returned.

Upon being delegated the task the Incident Management Coordinator shall:

- ❖ Advise Network Control of expected arrival time at the site.
- ❖ Obtain from Train Control all relevant details in relation to the incident.
- ❖ Establish with Train Control that representatives of the organisations involved have been notified and their expected times of arrival.
- ❖ Establish if Emergency Services are in attendance, or will be attending and their expected times of arrival.

##### 7.4.1. Site management

After arrival on site the Incident Management Coordinator shall be responsible for,

- ❖ Ensuring that the site is protected in accordance with current safe working requirements.
- ❖ Confirming attendance of Incident Site Representatives.
- ❖ Convening an initial meeting of the Incident Management Team.
- ❖ Ensuring that appropriate recovery and re-railing equipment has been arranged.
- ❖ Liaising with Emergency Response organisations if in attendance and establish lines of communication and control.
- ❖ Providing the single point of contact between the organisations attending, Train Control and Emergency Services.
- ❖ Acting as the Coordinator for all rail organisations where the incident site is under external control.
- ❖ Ensuring a Site Co-ordination Centre is established.
- ❖ Ensuring that each organisation controls its workforce and the safety of its activities.
- ❖ Ensuring that a forecast of restoration or partial restoration is made promptly and reviewed regularly with the Train Transit Manager / Operations Manager or nominee and or Network Control.
- ❖ Ensuring that unauthorised persons are not permitted access to the incident site.
- ❖ Coordinating the recovery actions of each of the organisations attending.
- ❖ Exercising, where necessary, the right to direct actions or resources of the rail organisations involved ensuring that all relevant details, including numbers of injuries/deaths, damage to infrastructure or rolling stock or adjoining property, access routes and vehicle marshalling areas are promptly established.
- ❖ Ensuring that evidence, including data recorder records, is protected or quarantined.

- ❖ Ensuring that Rail Safety Workers involved have been tested for alcohol or drugs in accordance with the relevant Rail Safety Act and procedures.
- ❖ Ensuring, in conjunction with the Incident Investigation Coordinator, that a preliminary investigation into the evidence at the site is conducted.
- ❖ Resolving, by referring to the ARTC General Manager, Risk and Safety if necessary, requests made by the Incident Investigation Coordinator which may impact adversely on the service restoration process.
- ❖ Organisations, when arriving at an incident site shall initially report to the Incident Management Coordinator.

#### 7.4.2. Site management meetings

The Incident Management Coordinator shall establish and chair an Incident Management Team, formed by the Incident Site Representatives, to co-ordinate engineering and operational functions and to establish procedures for recovery, restoration and, if necessary, co-ordination with external organisations.

An initial site meeting is to be held between the available team members as soon as possible after the arrival on site of the Coordinator. Further site meetings shall be held regularly as deemed necessary by the Coordinator.

Each team member must ensure that the team is advised of any substitution to be made for relief or other reasons.

Meetings with external organisations shall be held on an as required basis.

#### 7.4.3. On site updating

The Incident Management Coordinator shall establish contact with the Train Transit Manager or nominee as soon as practical after arrival at the site and arrange for regular updates from the site to be given.

The Train Transit Manager or nominee may arrange for a telephone conference to be held in conjunction with the reports from the site. At the time of any update an agreed time for a further site report shall be established.

#### 7.4.4. Off site management

Off site management and co-ordination, if required, shall be handled through the Train Transit Manager or nominee in conjunction with the Incident Management Coordinator.

### 7.5. Incident site representative - Maintenance Provider / ARTC Engineering

Site co-ordination of the infrastructure restoration works shall be the responsibility of the Maintenance Provider / ARTC Engineering. The Maintenance Provider / ARTC Engineering's Incident Site Representative shall be responsible for attending the incident site promptly, and for implementing, where required, procedures as follows:

- ❖ Advising the Incident Management Coordinator of expected times of arrival of representatives and resources.
- ❖ Reporting to the Incident Management Coordinator upon arrival or en-route if possible.
- ❖ Participating in Incident Management Team meetings and observing and implementing agreed actions or directions from the Incident Management Coordinator.
- ❖ Taking overall control of site safety (OH&S) to ensure the protection of all persons and property involved unless a Local Possession is in place then work under the direction of the supervisor detailed in that possession.
- ❖ Arranging for the necessary isolation, protection or removal of electrical traction or domestic supplies, overhead wiring system components, signalling equipment, track components and structures to permit rescue, recovery and restoration work.
- ❖ Ensuring that equipment is protected from further damage during recovery work.

- ❖ Managing any environmental issues which may arise during recovery or restoration of the site.
- ❖ Advising the Incident Management Coordinator of any operating restrictions which may apply during restoration.
- ❖ Protecting evidence of the cause of the incident assisting, where required, the Maintenance Provider / ARTC Engineering's Incident Investigation Representative.
- ❖ Providing a Site Coordination Centre with power, furniture, lighting and communications equipment as determined by the Incident Management Coordinator.
- ❖ Arranging a First Aid centre with adequate provisions and qualified staff.
- ❖ Providing lighting if night work is required.
- ❖ Providing road vehicle access to suit the recovery vehicles, including cranes, earthmoving equipment and re-railing group trucks.
- ❖ Designating a site for other road vehicle parking.
- ❖ Undertaking restoration work as agreed with, or directed by, the Incident Management Coordinator (nominated as the "Rail Commander" in NSW).
- ❖ Authorising resumption of services over repaired infrastructure and the cancellation of any Permits or Special Working Authorities.
- ❖ The co-ordination of any materials or components identified to be quarantined, including any safe handling, processing and storage so as not to be affected by the environment.

#### **7.6. Incident site representative - Operator**

Site co-ordination for the recovery of rolling stock shall be the responsibility of the Operator. Where more than one operator is involved each operator shall delegate a Site Coordinator who shall work in accordance with these requirements.

The ordering and co-ordination of alternate transportation and trans shipping arrangements will be the responsibility of the Operator's Incident Site Representative in conjunction with the Train Transit Manager or nominee.

Each Operator's Incident Site Representative shall be responsible for attending the incident site promptly and for implementing, where required, procedures as follows:

- ❖ Reporting to the Incident Management Coordinator of expected times of arrival of representatives and resources and on arrival at the site.
- ❖ Participating in Incident Management Team meetings and observing and implementing agreed actions or directions from the Incident Management Coordinator.
- ❖ Ensuring that appropriate re-railing or recovery equipment is ordered and will respond within a reasonable time.
- ❖ Ensuring that re-railing or recovery groups are fully informed regarding the handling of the rolling stock involved.
- ❖ Protecting evidence relating to the cause of the incident and shall be responsible for the co-ordination of any rolling stock or components identified to be quarantined, including safe handling, processing and storage so as not to be affected by the environment.
- ❖ Arranging transshipment of passengers or freight from the incident site.
- ❖ Managing the welfare of passengers and train crewmembers.
- ❖ Arranging alternative transport if required for passengers or freight to bypass the incident site.
- ❖ Ensuring that the Operator's employees involved in the incident are tested for alcohol or drugs in accordance with the relevant Rail Safety Act.
- ❖ Ensuring that only authorised persons from the organisation attend the site assisting, where required, the Operator's Incident Investigation Representative.
- ❖ Providing expertise and resources to manage any dangerous goods, load management or environmental issues which may arise from the involvement of the Operator's rolling stock.
- ❖ Providing authorisation for the movement away from the site of the Operator's vehicles involved.

### **7.7. Emergency Services Supervisor**

In the event of Emergency Service Organisations assuming control of an incident site under the relevant State Emergency Legislation, the Incident Management Coordinator will report to the Emergency Services Supervisor at the site (refer to appendix C).

### **7.8. Debrief**

As soon as possible after restoration of the incident site and the resumption of services, the Incident Management Coordinator is to reconvene the team to consider:

- ❖ Aspects relevant to the management of the restoration process.
- ❖ Amendments required to Incident Management Plans.
- ❖ The outcomes of this debrief are to be documented and forwarded to each of the participant organisations.
- ❖ Factual recall of actions taken to resume services and not an investigation into the incident

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## 8. Site management

### 8.1. Site management

The Incident Management Coordinator will be responsible for management of the incident site. Site management shall be performed in conjunction with the Network Controller and may include the issue of a Local Possession.

Although the Network Controller under direction of the Train Transit Manager will be responsible for overall incident management in relation to train movements etc, the Incident Management Coordinator will have direct responsibility for the incident site and will have full delegation in relation to incident site issues.

The Incident Management Coordinator shall perform site management in close liaison with each Incident Site Representative. A site management group comprising the Incident Management Coordinator and the Incident Site Representatives will be formed for this purpose. This will be termed the Incident Management Team.

If an operational incident occurs at an interface location, it is the responsibility of the Incident Management Coordinator (nominated as the "Rail Commander" in NSW) and the Infrastructure Manager to refer to the applicable Safety Interface Agreement. The incident shall be controlled by the organisation on whose geographic area the incident occurred. Refer to appendix A for a list of interface locations.

### 8.2. Access to incident site

The Incident Management Coordinator shall liaise with the Police, Operators, Service Providers and Maintenance Provider / ARTC Engineering and agree on procedures to be implemented to ensure that unauthorised persons are prevented from gaining access to the incident site.

### 8.3. Identification of incident management personnel

All personnel required to attend the incident site to assist in recovery and restoration are to wear, or if not practical, carry, photographic or name identification tags bearing their organisation's logos.

It shall be the responsibility of each Operator, Service Provider and Maintenance Provider / ARTC Engineering to ensure that all of that organisation's employees authorised to be on site are issued with, and are wearing or carrying, identification tags.

The Incident Management Coordinator shall have the authority to remove from site any person found without an identification tag.

### 8.4. Site safety

Each Incident Site Representative shall be responsible for ensuring the safety of persons under that organisation's control and will ensure that all safety precautions as specified in the relevant safe working manuals are adhered to.

Persons authorised to enter the incident site are to have, as a minimum, a Track Safety Awareness Certificate or equivalent, or be supervised by a person with an appropriate qualification.

Incident Site Representatives shall be responsible for advising the Incident Management Coordinator that all equipment and personnel under their control are clear of the line prior to the resumption of services.

The Incident Management Coordinator shall conduct a final inspection to ensure that all equipment and personnel are accounted for, and are clear of the running lines, prior to authorising the resumption of services.

#### **8.5. High visibility safety clothing and footwear**

Each person required to be on or about the track shall wear high visibility safety clothing and footwear at all times. Each railway person should have the name of the organisation which they represent clearly identified on their safety clothing. Emergency Services shall wear high visibility safety clothing of the colour designated by that organisation. Tabards, where applicable, shall be worn.

The Incident Management Coordinator shall have the authority to remove clear of the incident site and running lines, any person found without high visibility safety clothing or footwear.

#### **8.6. Occupational Health and Safety Requirements**

Incident Site Representatives shall be responsible for ensuring that their organisations' employees comply with the requirements of the Occupational Health and Safety Act.

These responsibilities shall include ensuring that each employee is wearing the appropriate safety equipment as specified under that Act.

The Incident Site Representatives shall come to an understanding in relation to any specific safety requirements that may need to be imposed, such as a hardhat area. These requirements are to be communicated to all persons involved via the Incident Management Team meeting.

The Incident Management Team will be responsible for arranging the briefing, of all persons attending, in relation to the safety requirements for the site. This should, typically, include a safety induction meeting prior to an employee being permitted to commence work on site. Combined induction meetings may be held if considered appropriate.

#### **8.7. First Aid facilities**

A First Aid facility which meets the requirements of the relevant Occupational Health and Safety Act will be provided at the incident site.

The facility is to be staffed by a person or persons with appropriate First Aid qualifications.

Unless otherwise directed by the Incident Management Coordinator, the Maintenance Provider / ARTC Engineering Site Representative will be responsible for the provision of these facilities.

#### **8.8. Site co-ordination centre**

If required by the Incident Management Coordinator, a Site Co-ordination Centre shall be established and, where applicable, operate in conjunction with the Police Emergency Operations Centre.

The Maintenance Provider / ARTC Engineering's Site Representative shall be responsible for providing and installing a suitable facility for this purpose. The Site Co-ordination Centre shall be established at a location selected by the Incident Management Coordinator with suitable access to power and communication services if at all possible.

#### **8.9. Communication facilities**

It shall be the responsibility of ARTC, in conjunction with the Incident Management Coordinator, to provide adequate communication facilities.



#### **8.10. Catering**

Responsibility for catering shall normally rest with the Incident Response Coordinator of each involved Operator, Service Provider and Maintenance Provider / ARTC Engineering however in the event of an incident being of a prolonged nature it may be necessary to provide on site catering.

At the discretion of the Incident Management Coordinator the Maintenance Provider / ARTC Engineering may therefore be required to provide catering facilities on site for all those attending. See also 8.11 Remote Areas.

#### **8.11. Remote areas**

In remote areas it shall be necessary to provide meals and accommodation for employees. Recovery consists owned by ARTC and on lease to the Infrastructure Maintainer are located at both Port Augusta and Parkeston.

Operators are able to hire these facilities for use at incident sites. It is the responsibility of the responsible operator to ensure that sufficient catering and accommodation is dispatched to the site as soon as possible and for all meals to be available on site following the arrival of the consist.

Organisations may choose to send in investigators and other personnel in advance of the break down consist. Those persons shall need to arrange for their own meals and accommodation prior to arrival of the break down consist.

#### **8.12. Break down consist**

On being notified of an incident where the break down consist may be required the Train Transit Manager / Operationsf Manager or nominee shall arrange for a telephone conference call with all affected organisations as soon as possible. The telephone hook up shall determine if,

- ❖ A break down consist is required at the site.
- ❖ The equipment required to be conveyed to the site by the break down consist.
- ❖ The operator responsible to provide motive power and crewing for the consist.
- ❖ An estimated time that the consist will be ready to depart and hence time of arrival at the site.
- ❖ Details of all staff who are to travel on the consist.
- ❖ Details of other personnel travelling independently to the site who shall require meals and / or accommodation.

#### **8.13 Environmental issues**

Environmental issues shall be handled in accordance with the ARTC Environmental Management System.

## 9. Incident Site investigation

### 9.1. Purpose

The various State Rail Safety Acts provides in part that an accredited person must inquire into and report to the Rail Safety Regulator on any railway accident or incident that may affect the safe construction, operation or maintenance of a railway in respect of which the person is accredited.

In all cases where a derailment or other irregularity occurs, inquiries are to commence immediately to enable the respective organisations to meet their obligations under the relevant Act. These inquiries may be conducted jointly by the accredited persons concerned. For incidents with significant safety impact the Rail Safety Regulator may initiate a Joint Inquiry or Investigation with the requirement of a formal report to the Regulator.

The General Manager Risk and Safety shall ensure through delegation that all accidents / incidents are categorised in terms of incident severity in accordance with the definitions contained in AS 4292.

All incidents classified as category A incidents will be investigated. The General Manager Risk and Safety or his delegate will determine the need to investigate category B incidents based on the severity of the incident and the opportunity to learn from the incident.

The General Manager Risk and Safety shall ensure that the incident categorisation and investigation processes are performed in a professional and consistent manner by the application of an appropriate quality monitoring process.

Every effort must be made to ascertain the cause of the incident without delay.

Every effort shall be made to ensure that investigations conform to the requirements detailed in AS4292.7. The investigation should explore all possibilities of causal factors such as organisational, technological, system and human factors and the primary and secondary effects of those factors in the occurrence.

Key to this is the gathering of pertinent physical evidence before it can be disturbed. Such evidence may be short lived or may be readily be subject to contamination or degradation. To ensure that the investigating body is provided with all available evidence, and that this is reliable, uncontested and appropriately documented, it is essential that:

- ❖ The evidence is collected as soon as possible after the incident to ensure its accuracy and relevance.
- ❖ Where possible, the evidence is quarantined to ensure that it is not lost or degraded.
- ❖ All parties have an opportunity to assure themselves of the veracity of the evidence.
- ❖ The work of collecting and documenting evidence follows procedures, which, as far as practicable, are standardised.

This section outlines the responsibilities of ARTC, Operators, Service Providers and Maintenance Provider / ARTC Engineering in the on site investigation following an incident.

To provide a process for the ARTC, Operators, Service Providers and Maintenance Provider / ARTC Engineering to effectively and efficiently co-ordinate the on site investigation following incidents occurring within the Network, to meet the requirements of the relevant Rail Safety Act.



The investigation process is to be directed at ensuring that all relevant data and information collected is presented in a clear and concise manner.

### **9.2. Incident investigation coordinator**

Management of the site investigation will be the responsibility of a person nominated by the ARTC Chief Executive Officer or delegate. This person shall be termed the Incident Investigation Coordinator. The major role of this position will be to co-ordinate the site investigation processes of the involved rail organisations.

The Incident Investigation Coordinator will be required to direct the investigation process at the site and to co-ordinate the investigation with the Incident Management Coordinator.

The General Manager Risk and Safety shall ensure that the person nominated as Incident Investigation Coordinator is competent in investigation and reporting techniques and have a good understanding of the principles and requirements of AS4292.7 .

### **9.3. Incident investigation representatives**

It shall be the responsibility of each Operator, Service Provider and Maintenance Provider / ARTC Engineering to co-operate with the Incident Investigation Coordinator in planning and co-ordinating the investigation. Each organisation is to be aware of the investigation process and is to make available appropriate personnel to assist in the investigation of the incident. A person nominated to represent an organisation will be termed its Incident Investigation Representative.

The group comprising the Incident Investigation Coordinator and the Incident Investigation Representatives shall be termed the Incident Investigation Team.

### **9.4. Responsibilities of the incident investigation coordinator**

The Incident Investigation Coordinator shall be required to promptly attend the incident site. Before arriving at the site the Coordinator may request that suitably qualified representatives of organisations involved commence investigation of the incident. This will particularly apply where delay in commencing the investigation may result in vital evidence being lost.

The Incident Investigation Coordinator shall liaise with the Incident Management Coordinator at all times and will have the authority to direct the Incident Management Coordinator to take whatever actions are necessary to preserve any evidence that may be required to assist in the investigation. These will include but not be limited to:

- ❖ Requesting that sections of the site be quarantined from entry by other than emergency personnel until the Investigation Team arrives on site requesting that the Police, or the Incident Management Coordinator seal off particular areas of the incident requesting that the commencement of restoration work is prevented until incident investigations have been completed requesting the Incident Management Coordinator to direct the resources of organisations involved and to utilise other resources as necessary to ensure that the investigation is completed in a thorough and efficient manner.
- ❖ The action to direct an organisation's resources shall be taken in conjunction with that organisation requesting that employees involved in the incident be made available for interview. Operators, Service Providers and Maintenance Provider / ARTC Engineering are to ensure that staff involved are available for interview at the earliest possible time.

Should any such request result in conflict, the matter is to be referred to the relevant ARTC Corridor General Manager for resolution.

Where considered necessary the Incident Investigation Coordinator may require that independent testing be performed. This may require the use of outside resources. ARTC

will utilise its resources to assist in the investigation as required.

The Incident Investigation Coordinator shall be responsible for collecting and compiling the relevant information and presenting a complete report of all evidence obtained, including sketches and photographs as required.

#### **9.5. Responsibilities of the Maintenance Provider / ARTC Engineering**

The Maintenance Provider / ARTC Engineering's Incident Investigation Representatives are to be able to represent the Maintenance Provider / ARTC Engineering in all aspects of the investigation as follows:

#### **9.6. Signal discipline**

Detailed investigation is to be made of the circumstances and the equipment if there has been any suggestion that a signalling defect may have caused an unsafe condition. The equipment concerned must be booked "out of order" and not operated prior to the investigation.

The roles to be performed and the responsibilities to be managed by the Signal representative shall include, but not be limited to the following:

- ❖ Reporting to the Incident Investigation Coordinator on arrival or en-route if possible.
- ❖ Arranging for additional technical resources to assist in the investigation if required.
- ❖ Arranging for signal infrastructure staff to be available for interview as required.
- ❖ Inspecting the aspects of all relevant signals including level crossing signals.
- ❖ Inspecting the position of points and associated operating equipment.
- ❖ Performing electrical and interlocking control tests as required.
- ❖ Function testing signal control circuits.
- ❖ Function testing approach locking.
- ❖ Function testing route locking.
- ❖ Testing track circuits for train detection.
- ❖ Performing electrical insulation/isolation inspections and tests.
- ❖ Circuit testing to wiring diagrams.
- ❖ Performing security inspections of equipment and locations.
- ❖ Inspecting signals sighting etc.
- ❖ Performing function testing as required.
- ❖ Providing detailed records of all test results.
- ❖ Providing, by photographic or other means, a record of the site evidence.
- ❖ Obtaining printouts of event logging equipment where installed.
- ❖ Analysing data and reporting.

The above testing and checks to be carried out in the presence of an ARTC representative or nominee and conducted in accordance with the appropriate engineering standards where applicable.

#### **9.7. Civil discipline**

The roles to be performed and the responsibilities to be managed by the Civil representative shall include, but not be limited to the following:

- ❖ Reporting to the Incident Investigation Coordinator on arrival or en-route if possible.
- ❖ Arranging for additional technical resources to assist in the investigation if required.
- ❖ Arranging for civil infrastructure staff to be available for interview as required.
- ❖ Inspecting the track and providing full details of the track layout in the incident area.
- ❖ Inspecting the track and recording details of all marks which may be relevant to the incident.
- ❖ Recording by sketches and photographs the details of all marks found.
- ❖ Identifying and recording details of track which may have contributed to the incident. Where practicable these measurements shall be witnessed and agreed by an operator representative or their delegate.

- ❖ Inspecting rating and condition of all speed boards in the area of incident.
- Further to the above, it may be necessary for additional tests to be performed.

The above testing and checks to be carried out in the presence of an ARTC representative or nominee. and conducted in accordance with the appropriate engineering standards, where applicable.

#### **9.8. Responsibilities of the operator**

The roles to be performed and the responsibilities to be managed by the Operator's representative shall include, but not be limited to the following:

- ❖ Reporting to the Incident Investigation Coordinator on arrival or en-route if possible.
- ❖ Arranging for additional technical resources to assist in the investigation if required.
- ❖ Arranging for the Operator's staff to be available for interview as required.
- ❖ Inspection of all vehicles involved in the incident for defects or contributing causes.
- ❖ Performing tests in the presence of a witness approved by the Investigation Coordinator.
- ❖ Recording the position of critical safety items such as control handles, isolating cocks, circuit breakers and load control devices.
- ❖ Arranging for the removal of Hasler tapes or electronic data logger records and where fitted, record the wheel set diameter, where practical this should be witnessed by an independent party.
- ❖ Arranging for the analysis of electronic data or tapes removed from vehicles involved.
- ❖ Ensuring security of the analysis information provided.
- ❖ Noting and recording, using sketches and photographs, the position of all vehicles involved in the incident.
- ❖ Impounding vehicles required for further inspection and test as required.
- ❖ Clearly and permanently marking all vehicles requiring further examination or brake testing.
- ❖ Arranging for vehicles and or components to be transported for additional tests.
- ❖ Assisting in signal sighting tests as required.
- ❖ Ensure the availability of locomotives etc for testing purposes if required.

Further to the above, it may be necessary for additional tests to be performed.

The above testing and checks are to be carried out in the presence of an ARTC representative or nominee.

#### **9.9. Responsibilities of the infrastructure owner / Lessee**

The roles to be performed and the responsibilities to be managed shall include, but not be limited to, the following:

- ❖ Reporting to the Investigation Management Coordinator on arrival or en-route if possible.
- ❖ Arranging for the Train Control Provider's staff to be available for interview as required.
- ❖ Witnessing of infrastructure and rolling stock tests as required.
- ❖ Obtaining details of train operations at the time of the incident.

#### **9.10. Debrief**

As soon as possible after the incident has been investigated, the Incident Investigation Team will reconvene to consider:

- ❖ The implications of the incident aspects relevant to the management of the investigation process amendments required to the investigation procedures.
- ❖ The outcomes of this debrief are to be documented and provided to each of the participating organisations.

#### **9.11. Investigation and report preparation.**

On completion of an investigation, the Investigation Management Coordinator shall compile all observations, evidence (photographs, video tape, event recorder logs), notes of interviews etc. and compile a report under the guidance of the National Incident and Investigation Manager.

On completion of the report, distribution of the report is undertaken following discussions between the National Incident Investigation Manager and the General Manager Risk and Safety.

The Safety Actions contained within the report are to be tabled at the ARTC Risk & Safety Committee for discussion and decision. Responsibility for implementing and allocation to a responsible member of staff for each of the Safety Actions is reached with the relevant Business Unit Executive General Manager.

If Safety Actions are identified and allocated to external organisations, the allocated action and a copy of the final report is to be forwarded to the external party via the relevant Business Unit Executive General Manager.

The implementation status of all Safety Actions is to be monitored on a quarterly basis by the Risk & Safety Committee Meetings.

#### **9.12. Record keeping**

A Master Copy of all incident investigation reports will be maintained by The National Incident and Investigation Manager.

A progress report on the implementation status of all Safety Actions will be prepared and kept up to date by the National Incident and Investigation Manager.

In the case of investigations where ARTC assists the investigation process of an Operator, ARTC shall solicit a copy of the final report from the Operator; the report shall then be filed by the National Incident and Investigation Manager.

## 10. Emergency planning

### 10.1. Introduction

In conjunction with Emergency Services, Operators, Service Providers and Maintenance Provider / ARTC Engineering, desktop and simulated incident exercises will be conducted to test the effectiveness of the incident response protocols established within this Manual.

These exercises and simulations will be designed to ensure that individually and collectively the Incident Management Plans adequately address the requirements for incident response and management and that the Plans are effectively integrated. The results of these exercises will be used to amend the Plans or this Manual where required.

### 10.2. Incident exercise program

ARTC, Operators, Service Providers and Maintenance Provider / ARTC Engineering are to commit personnel and resources as required for the formation of a working party, to be convened by ARTC, specifically established to develop and implement a program of exercises designed to test and develop response to incidents.

Operators, Service Providers and Maintenance Provider / ARTC Engineering shall also program exercises to train or test staff in their own procedures. ARTC approval shall be obtained for any such exercise on its Network or potentially affecting Network operations.

The working party is to develop a program of desktop and actual simulations to train and test each organisation's response to an incident.

The exercises shall test and evaluate:

- ❖ Emergency Services fire and life safety.
- ❖ Documented procedures response facilities.
- ❖ Communications response times.
- ❖ Interface working relationships recovery mechanisms.
- ❖ Site remediation.
- ❖ Training needs.
- ❖ Any other parameters as seen as appropriate by the working party.

These exercises or simulations are not intended to meet all training requirements of the various organisations. Focus will be on interaction. Each organisation is to have in place its own training plans.

### 10.3. Exercise organisation

The following aspects are to be considered when organising an exercise on ARTC infrastructure. Where more than one organisation is involved; each aspect shall be agreed by all organisations involved.

#### 10.3.1. Exercise control

In all cases a person must be appointed with overall responsibility for co-ordinating the planning, management and debrief of the exercise.

#### 10.3.2. Objectives

Objectives must be identified for both the overall exercise and for each participant.

#### 10.3.3. Costs

Participants must identify who will be bearing costs involved.

#### 10.3.4. Legal issues

Need for written agreements

#### 10.3.5. Assets to be used

- ❖ Identification of responsibility for liabilities.
- ❖ Need for indemnities.

Agreement must be reached with the owner of any assets, whether infrastructure or rolling stock, on their supply, physical condition before and after use and conditions attached to their use.

Where rolling stock is used any inherent risks, such as the presence of asbestos or the condition of vehicles, must be identified and appropriate safety controls applied.

The impact on infrastructure and normal rail operation shall be assessed and agreed with other organisations actually or potentially involved including how the site will be cleared after the exercise.

#### 10.4. Other exercises

The organisation with overall responsibility for organising an exercise shall seek to identify other exercises being held which could impact on or be affected by that exercise. The objective is to ensure resources are available and avoid unnecessary duplication.

#### 10.5. Release of information

Appropriate constraints shall be established on the prior release of information, about an exercise (e.g.: location, objectives, dates and times) both within participating organisations, externally and to individuals.

Australian Rail Track Corporation is to be advised outline detail of any exercise, which may impact on the network e.g.

- ❖ Military/security exercises.
- ❖ Industry exercises.

The arrangements for involvement of and release of information to the media both for exercise purposes and real-time must be identified.

#### 10.6. Safety plan

A written safety plan shall be prepared for all exercises involving full size equipment or the Network. Plans may be of a generic nature, subject only to date and time changes for exercises of a regular nature e.g.: station evacuation.

Safety plans must identify:

- ❖ A person with overall responsibility for all safety aspects involved in an exercise.
- ❖ The physical limitations of exercise play both for players and those attending but not directly involved in the exercise.
- ❖ Site access controls.
- ❖ Responsibilities and arrangements for line possessions and operational safety for an exercise.
- ❖ The interface between real time operation, the exercise site, exercise play and exercise control.
- ❖ The interface with exercise control and off site Train Control.
- ❖ First aid and emergency medical arrangements.
- ❖ Controls on hours of duty, rest and refreshment arrangements.
- ❖ Arrangements for terminating an exercise for safety reasons before its planned conclusion.
- ❖ How the site safety arrangements are briefed to all those involved before the exercise commences.

#### 10.7. Exercise real time control

Exercise control arrangements shall identify:

- ❖ The roles and responsibilities of the person with overall site control.



- ❖ How that person will be supported by an exercise control team.
- ❖ The relationship between the exercise control arrangements, Umpires and Observers.
- ❖ The relationship between the person with overall site control responsibilities and the person with the responsibility of the site safety.
- ❖ Interaction between exercise control and exercise play.
- ❖ How Umpires (who can influence play) and observers are deployed, directed and managed.
- ❖ How an exercise will be concluded (early if necessary).

#### **10.8. Debrief and feedback**

A debrief shall be held for all exercises and must involve all the participating organisations. The time scale for the debrief should ideally be set before the exercise.

Large scale exercises may necessitate a number of individual organisation's debriefs followed by an overall debrief.

Lessons learned must be documented.

Recommendations for change must be identified. These may include proposed changes to Rules and Regulations, safety management systems, exercise preparation and management. Recommendations for change should be disseminated to other rail organisations where the lessons learned affect more than the organisations involved in the exercise.

## **11. Document review**

ARTC shall regularly call a meeting of all parties involved with this document, including the Emergency Service Providers to consider any changes which may be necessary to maintain this document in a viable manner.

Organisations seeking amendments to this document should forward same, in writing, giving details and reasons for the requested change to,

ARTC General Manager Risk and Safety  
PO Box 10343 Gouger Street  
Adelaide 5000.

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## 12. Documentation

Appendix A	Interface locations
Appendix B	Incident log
Appendix C	Notification of operational incidents
Appendix D	MFN Appendix
Appendix E	Network Maps

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## Appendix A – Interface locations

Interface locations between ARTC and other track owners -;

### Western Australia

Kalgoorlie

With Genesee and Wyoming near Maratana St. over bridge

### New South Wales

Broken Hill

Sydney Outer Metro

Sydney Metro Freight

Approach to Broken Hill with Silverton Tramway Co

Macarthur, Unanderra, Bowenfels, RailCorp

Enfield West, Enfield South, Enfield North, Flemington South Junction, Meeks Rd, Chullora Yard, Wardell Road Junction, Campsie to Marrickville (shared Corridor), Campsie Crossovers, Port Botany – RailCorp, Southern Sydney Freight Line (Sefton Park Junction to Macarthur shared corridor)

Werris Creek

At 11.175km on the Armidale (Dumarsq) branch line - RIC

Gap

At 416.025km on the Narrabri branch line – North West Commodities

Binnaway

At 459.205km from B points at Binnaway from the Gwabegar branch line – RIC

Gulgong

At 340.270km on the Wallerawang line - RIC

Dubbo

At 466.855km on Coonamble branch line (Troy Junction) – RIC

Dubbo

At 461.79km on the Orange line – RIC

Dubbo

At 461.845km on the Triangle loop on Merrygoen line – RIC

Narromine

At 498km at Narromine on Cobar branch line – RIC

Goobang Jct

At 447.1km from Parkes – Parkes Triangle – RIC

Parkes Triangle

At 627.5km on the Parkes East Fork – Cootamundra to Goobang Jct line – RIC

Bogan Gate

At 483.845km on the Tottenham branch line – RIC

Stockinbingal

At 454.790km on Temora branch line – RIC

Uranquinty

At 536.27km on Kywong branch line – RIC

The Rock

At 551.075km on Boree Creek branch line – RIC

Culcairn

At 597.255km on the Corowa branch line – RIC

Junee

At 486km at Junee North and at 484km on the triangle loop from Junee West on the Griffith via Narrandera lines – RIC

Demondrille

At 468km on the Cowra line via Blayney – RIC

Joppa Junction

At 230.6 km on the Queanbeyan branch line – RIC

Picton

At 85.620km on the Picton Mittagong loop line - RailCorp

Kanandah

Broken Hill - Rail Infrastructure Corporation

Kempsey

(Shell siding) – Shell

Morree

(Mobil siding) – Mobil

Broken Hill

Zinc Corporation

Goulburn

Goulburn Oil

Goulburn

RailCorp

Strattons

Stratton Mills Cootamundra AFL Store

Yass Junction

Incitec

Berrima Junction

Blue Circle

Tahmoor Colliery

Tahmoor Mines

Gunnedah

Namoi Mill

Gunnedah

Vickery Coal

Maitland

South Maitland Railway

Kooragang Island

Pacific National Siding – Pacific National

Welsh Point

Eastern Fertilisers, Incitec Fertiliser, Sims Metal

Grasslands Sidings

(Kundle Kundle) Goninans Siding

Casino

Rail Infrastructure Corporation

## South Australia

Port Augusta	Within the yard complex with Genesee and Wyoming
Port Augusta to Stirling North	Pichi Richi Railway
Stirling North	Optima Energy for the coal line both the Northern Power House and Coal Fields
Coonamia	Genesee and Wyoming Port Pirie yard complex
Salisbury to Dry Creek	Parallel broad gauge rail line owned by Trans Adelaide
Dry Creek North to Dry Creek South	Adjacent rail yards with Genesee and Wyoming
Dry Creek South	Interface with Trans Adelaide for broad gauge access to and from the Port Loop line.
Dry Creek South to Belair	Parallel broad gauge line owned by Trans Adelaide with at grade crossings at Torrens Junction and Goodwood.
Pacific National Rail yard Islington	Located on the opposite side to Trans Adelaide
Mt.Barker Junction	Parallel interface on the crossing loop with SteamRanger.
Monarto South	Genesee and Wyoming for the Apamurra Branch
Tailem Bend	Genesee and Wyoming for the Tailem Bend yard and Loxton branch. The Pinnaroo line runs parallel to the main south line for a short distance.

## Victoria

Dimboola	V Line Network Access for the Yarpeet line approaching from the Wolseley end of the yard and the Dimboola yard.
Murtoa	V Line Network Access for the yard and branch line to
Houpton.	
Ararat	V Line Network Access for the yard and branch line to Maryborough
Maroona	V Line Network Access for the Portland Branch.
Gerringat	V Line Network Access for the broad gauge line to Ballarat. The main line is dual gauge to North Geelong "C" cabin.
North Geelong "C" cabin	V Line Network Access for the broad gauge Geelong Yard.
North Geelong – Werribee	V Line Network Access for the broad gauge lines which operate under bi-directional signaling with an at grade crossing at Elders Block Point.
Werribee to Newport	Parallel operation of broad gauge with Metro Trains Melbourne and direct interface with Metro Trains Melbourne and V Line Network Access at Newport.
Newport to Brooklyn	Parallel line with V Line Network Access.
Tottenham	Interface with V Line Network Access
Tottenham to Sunshine	Parallel line with V Line Network Access.
Sunshine to Broadmeadows	(Jacana Loop) – Parallel line with V Line Network Access
Broadmeadows	Parallel interface with Metro Trains Melbourne.
Broadmeadows to Seymour	Parallel interface with V Line Network Access

ARTC's main line runs parallel to other track owner's lines at a number of locations as follows -:

Port Augusta to Stirling North - Pichi Richi Railway:  
Salisbury (SA) to Belair – Trans Adelaide:  
Mt.Barker Jct – SteamRanger:  
Tailem Bend (Melbourne end) – Genesee and Wyoming  
Dimboola (Adelaide end) – V Line Network Access:  
Murtoa – V Line Network Access:  
Geelong (North Shore) to Werribee – V Line Network Access:  
Werribee to Newport – Metro Trains Melbourne:  
Newport to Brooklyn – V Line Network Access:  
Sunshine to Albion – Metro Trains Melbourne:  
Albion to Jacanna – V Line Network Access:

Jacanna to Broadmeadows – Metro Trains Melbourne:  
Broadmeadow to Albury – V Line Network Access.

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## Appendix B – Incident log



AUSTRALIAN RAIL TRACK CORPORATION LTD

Name .....(Person Completing Log)

Date .....Time Advised of Incident ..... Hours

Exact location .....

Incident TCR Number .....

Risk and Safety Senior Investigator departed for Incident Site (Yes / No).....Hours

Risk and Safety Senior Investigator arrived at Incident ..... Hours

### Train Details:

Train Number

Leading Locomotive .....Other Locomotive(s)

Driver(s) Names .....Depot .....

Depot .....

Depot .....

Length of train .....Metres  
.....Wagons.....Tonnage.....

Nature of injuries (If any)

.....

.....

.....

.....

.....

.....

Dangerous Goods on Train: YES / NO Manifest Requested / Received YES / NO

### Type of Incident:

Major Derailment Y/N  
Train Collision Y/N  
Damaged Freight Y/N  
Injuries Y/N  
Fatalities Y/N  
Safe Working Breach Y/N

Minor Derailment Y/N  
Level Crossing Collision Y/N  
Fire Y/N  
Other  
Number of Injured  
Number of fatalities

**Advised ARTC Management:**

Business Unit Executive General Manager	.....Hours
Corridor Operations Manager	.....Hours
Corridor Infrastructure Manager	.....Hours
Risk and Safety      Senior Investigator	.....Hours
National Incident and Investigation Manager	.....Hours

**RAIL SAFETY REGULATOR**

**Hours**

**COMCARE**

**Hours**

**Advised Train Operators:**

PNL	Hours	QRN	Hours
Genesee & Wyoming	Hours	RailCorp	Hours
Country Link	Hours	VLine	Hours
SCT	Hours	GSR	Hours
Other:	Hours	Other	Hours
Other	Hours	Other	Hours

**Advised Emergency Services:**

**Advised Interfaces:**

Police:	Yes / No	Hours	RailCorp	Yes / No	Hours
Ambulance	Yes / No	Hours	WestNet	Yes / No	Hours
Fire Brigade/CFS	Yes / No	Hours	TransAdelaide	Yes/No	Hours
Flying Doctor	Yes / No.....	Hours	Metro Trains Melbourne	Yes / No	Hours
SES	Yes / No	Hours	Genesee & Wyoming	Yes / No	Hours
			Port Auth	Yes / No	Hours
			QR	Yes/No	Hours

**Other Services:**

Transfield Nth/Sth	Yes / No	Hours	EPA	Yes / No	Hours
DEDI	Yes / No	Hours	ARTC SC	Yes / No	Hours
Comcare	Yes / No	Hours	Dept. Transp.	Yes/No	Hours

**ARTC Personnel Attending Site:**

Name	Departed for Site	Hours	Arrived at Site	Hours
Name	Departed for Site	Hours	Arrived at Site	Hours

Name	Title	Company
Name	Title	Company
Name	Title	Company
Name	Title	Company

Name	Company	Telephone No	Time
Name	Company	Telephone No	Time
Name	Company	Telephone No	Time

DATE	TIME	EVENT / ACTION / AUTHORISED BY
------	------	--------------------------------

[illegible]


Normal Operations Resumed at: .....Hours and all relevant Personnel / Operators advised.

**INCIDENT SUMMARY:**

NAME

SIGNATURE

DATE



## Appendix C – NSW Specific Requirements

All incidents in NSW will be reported to the Train Transit Manager Train or nominee and Emergency Services (if required) as below:

<b>EMERGENCY SERVICES</b>	<b>000</b>
<b>ARTC TRAIN CONTROL JUNEE</b>	<b>(02) 6924 9869</b>
<b>ARTC TRAIN CONTROL BROADMEADOW</b>	<b>(02) 4902 9410</b>

### **Advise to Customers and ARTC Engineering**

The Train Transit Manager will be responsible for advising the following as soon as possible after occurrence of an operational incident:

- ❖ ARTC Senior Investigator for the affected area
- ❖ Operations Manager for the affected area
- ❖ Infrastructure Manager for the affected area
- ❖ Operator

### **Provision of a list of emergency contacts**

All Network Control locations will be issued with the emergency call out lists by each respective discipline.

The General Manager Risk and Safety or nominee shall ensure that a call out roster of Senior Investigators is issued to all Train Control locations.

### **Initial reporting of rail safety incidents**

The Train Control Centre Manager or nominee shall consult with the Senior Investigator if an incident is a notifiable occurrence in accordance with Rail Safety Act 2008.

The Train Control Centre Manager or nominee shall be responsible for initial notification of the incident to the Office of Transport Safety Investigation (OTSI).

The following methods can be used:

- ❖ Telephone 1 800 677 766
- ❖ Email [www.otsi.nsw.gov.au](http://www.otsi.nsw.gov.au)
- ❖ Facsimile 02 8253 7299

### **Formal reporting of incidents to the Independent Transport Safety Regulator**

The General Manager Risk and Safety or his nominee shall email the DoT Notification of Occurrence report from the Safety Incident Management System (SIMS) to the Independent Transport Safety Regulator (ITSR).

### **Formal reporting of incidents to Comcare and Work Cover NSW**

The Infrastructure Manager is responsible for ensuring an appropriately qualified Occupational Health & Safety person is involved in the event of an incident involving personal injury or near miss.

The OH&S Officer on site is responsible for notification of incidents to Work Cover NSW in accordance with the requirements of the Occupational Health Safety Act 2000.

Comcare notifications will be made in accordance with Commonwealth Occupational Health and Safety Act 1991.

#### **Comcare**

Phone 1300 366 979

Web [https://www.comcare.gov.au/secure/online\\_incident\\_notification\\_form](https://www.comcare.gov.au/secure/online_incident_notification_form)

Fax 1300 305 916

### **Responsibility for the communication of information**

It is the responsibility of each Executive General Manager to define the internal protocols for communication flow for incidents and progress on incident management.

### **District Emergency Operations Controller (DEOC)**

In the event of an Emergency Services Organisation assuming control of an incident under the State Emergency and Rescue Management Act 1989, the Incident Management Coordinator will report to the District Emergency Operations Controller.

The District Emergency Operations Controller is a police officer, holding the position of Region Commander stationed within that district, who has been appointed by the Commissioner of Police.

Under the Act, the District Emergency Operations Controller is subject to the direction of the State Emergency Operations Controller and is responsible for:

- ❖ Controlling the allocation of resources in response to the emergency in the event of an emergency which affects more than one local government area in the district.
- ❖ Issuing directions to agencies that have emergency response functions for the purposes of controlling the allocation of those resources.
- ❖ The establishment and control of a District Emergency Operations Centre.
- ❖ The District Emergency Operations Controller may exercise these functions without the need for a declaration of a State of Emergency.
- ❖ However in the event of a State of Emergency, the exercise of these functions is subject to Division 4 of the State Emergency and Rescue Management Act.
- ❖ The Incident Management Coordinator (nominated as the “Rail Commander” in NSW) will coordinate with other involved organisations, the commitment of resources as directed The District Emergency Operations Controller.

## Appendix D – MFN Appendix

### 1. Profile of the Sydney Metropolitan Freight Network (MFN) & Southern Sydney Freight Line (SSFL)

The ARTC MFN and SSFL provide a dedicated rail freight connection between Port Botany and the ARTC network south of Macarthur.

The rail lines connected to the ARTC MFN include private sidings and lines managed by accredited Rail Infrastructure Managers. Information specific to these interfaces are contained within the ARTC/RailCorp interface agreement (*see maps of interface locations in Appendix E*) as well as the respective private siding interface agreements.

### 2. ARTC / RailCorp risk management

ARTC has undertaken a comprehensive process of risk assessment in consultation with the appropriate stakeholders in order to adequately plan for emergencies associated with the interface of the respective networks.

### 3. Network Control

RailCorp are performing the network control function for the MFN on behalf of ARTC under a transitional services agreement prior to ARTC moving operational control to the Network Control Centre South at Junee.

ARTC has established operational control of the SSFL in the Network Control Centre South at Junee..

### 4. Shared corridor overview

The ARTC MFN runs parallel to the RailCorp passenger network between Marrickville (6.645km) and Campsie (12.300km). The ARTC SSFL runs parallel to the RailCorp passenger network between Sefton Park East Junction (21.285km measured via Enfield Goods line) and Macarthur (57.965km measured via Granville line). The management of this portion of the MFN and of the SSFL is undertaken in compliance with the following documents.

- The ARTC/RailCorp interface agreement
- The ARTC shared corridor protocols
- ARTC Network Rules and Procedures
- RailCorp Network Rules and Procedures (whilst being managed by RailCorp)

Incidents occurring on either party's network without impact on the other will be managed independently.

### 5. RailCorp Rail Management Centre

RailCorp will provide train control for the MFN as a transitional arrangement from the RailCorp Rail Management Centre located at Sydney Central Station.

### 6. Incidents affecting both networks

As RailCorp will be providing the train control function on behalf of ARTC as a transitional arrangement for the MFN, communication between train crews, track maintenance personnel, signal maintenance personnel, Signallers and Train Controllers will be undertaken in accordance with existing RailCorp operations and communications protocols.

Where a RailCorp Network Control Officer becomes aware of a train failure, derailment and/or any other incident which may affect the safety of movements on one or both lines of the adjacent railway, immediate action will be taken by that Network Control Officer to advise the RMC Goods Controller. The Goods Controller will effectively manage the

situation and make contact with ARTC to ensure MFN remediation and reporting requirements are met. See Transitional Incident Management Flowchart on page 46.

**7. Appointment of Rail Commander**

The Rail Commander will be appointed as required by either the –

- RailCorp RMC Shift Manager  
or
- ARTC Sydney Operations Manager

**8. Incidents involving RailCorp overhead wire**

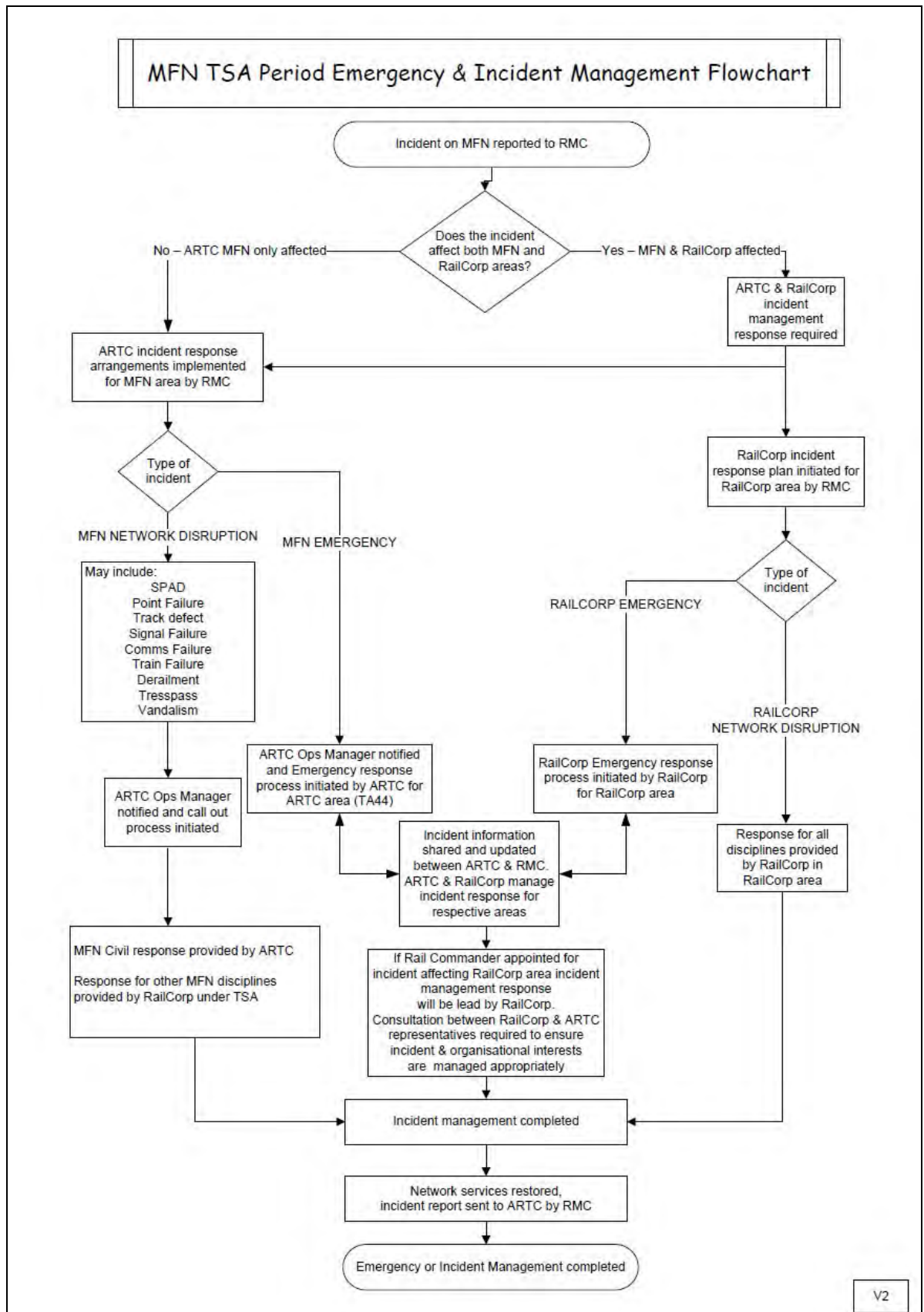
The RailCorp Electrical Operations Centre (EOC) is responsible for the operation of the 1500v overhead traction power and the coordination of power isolation and restoration under emergency conditions.

All incidents involving 1500v overhead traction power lines (and other RailCorp high voltage assets) shall be managed as per the RailCorp procedure for the removal of the power supply.

Where incidents necessitate the response of both ARTC and RailCorp representatives, the status of the high voltage power supply shall be communicated by RailCorp to the ARTC Rail Commander.

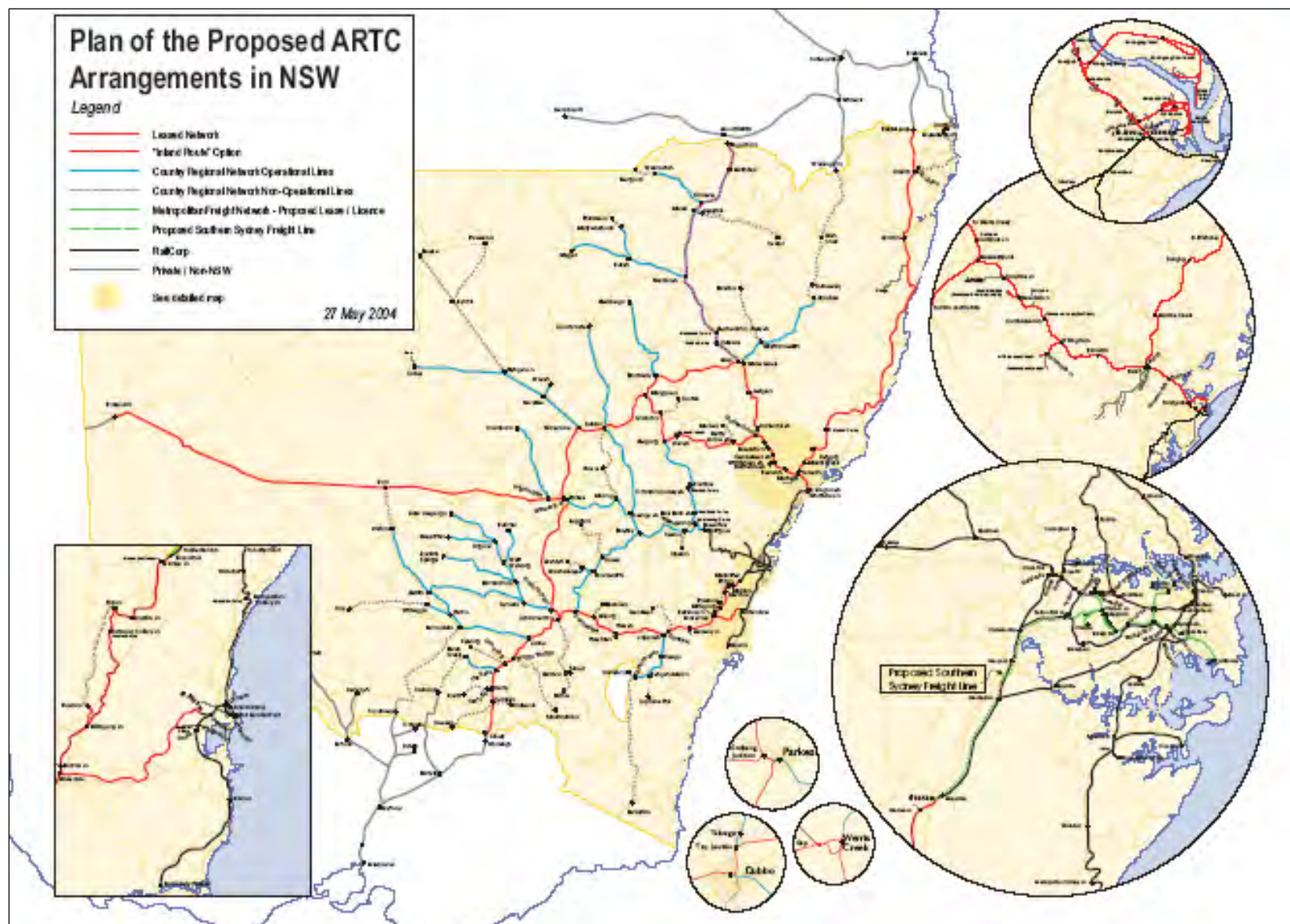
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## 9. Transitional incident management flowchart



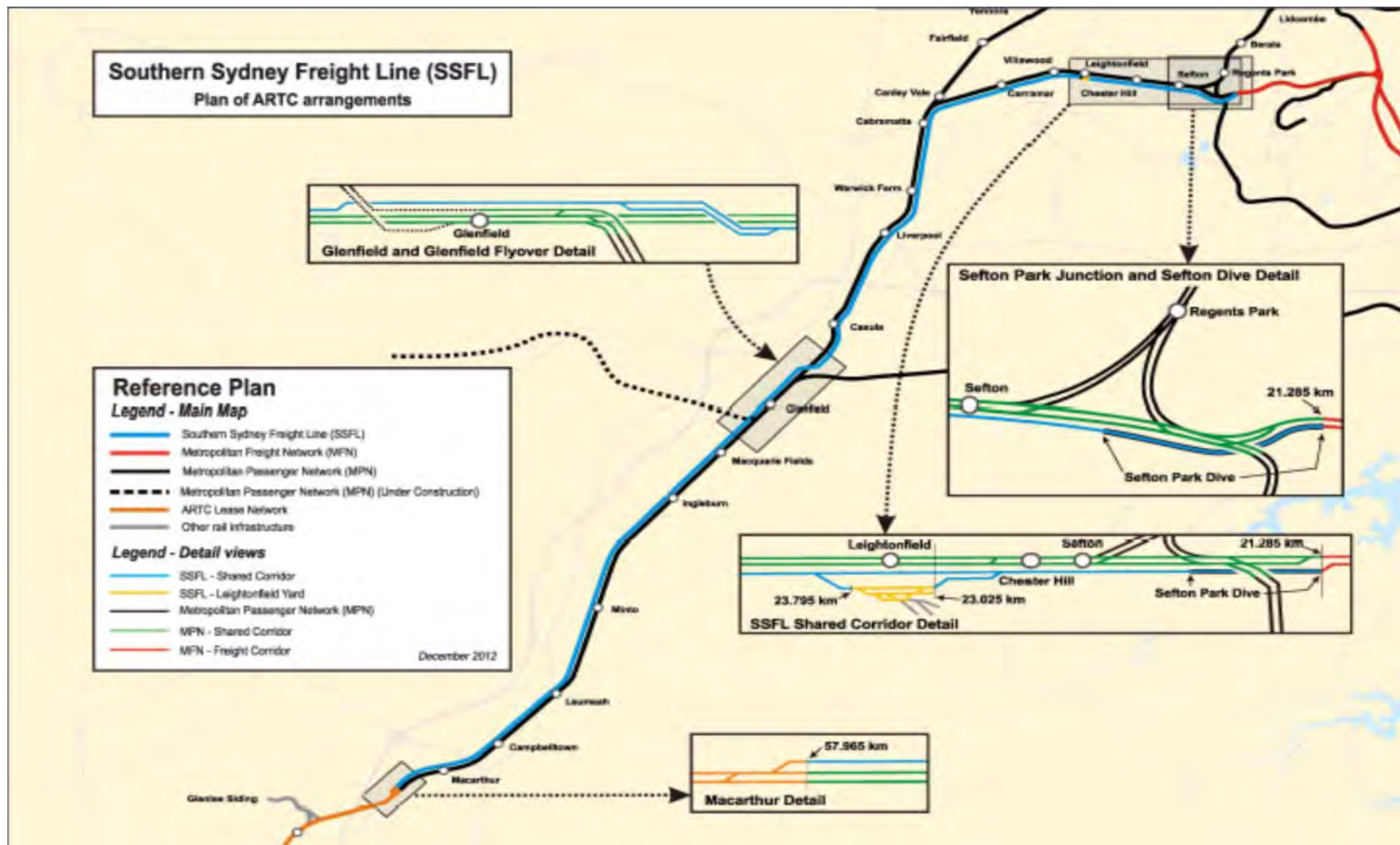


## Appendix E – Network Maps

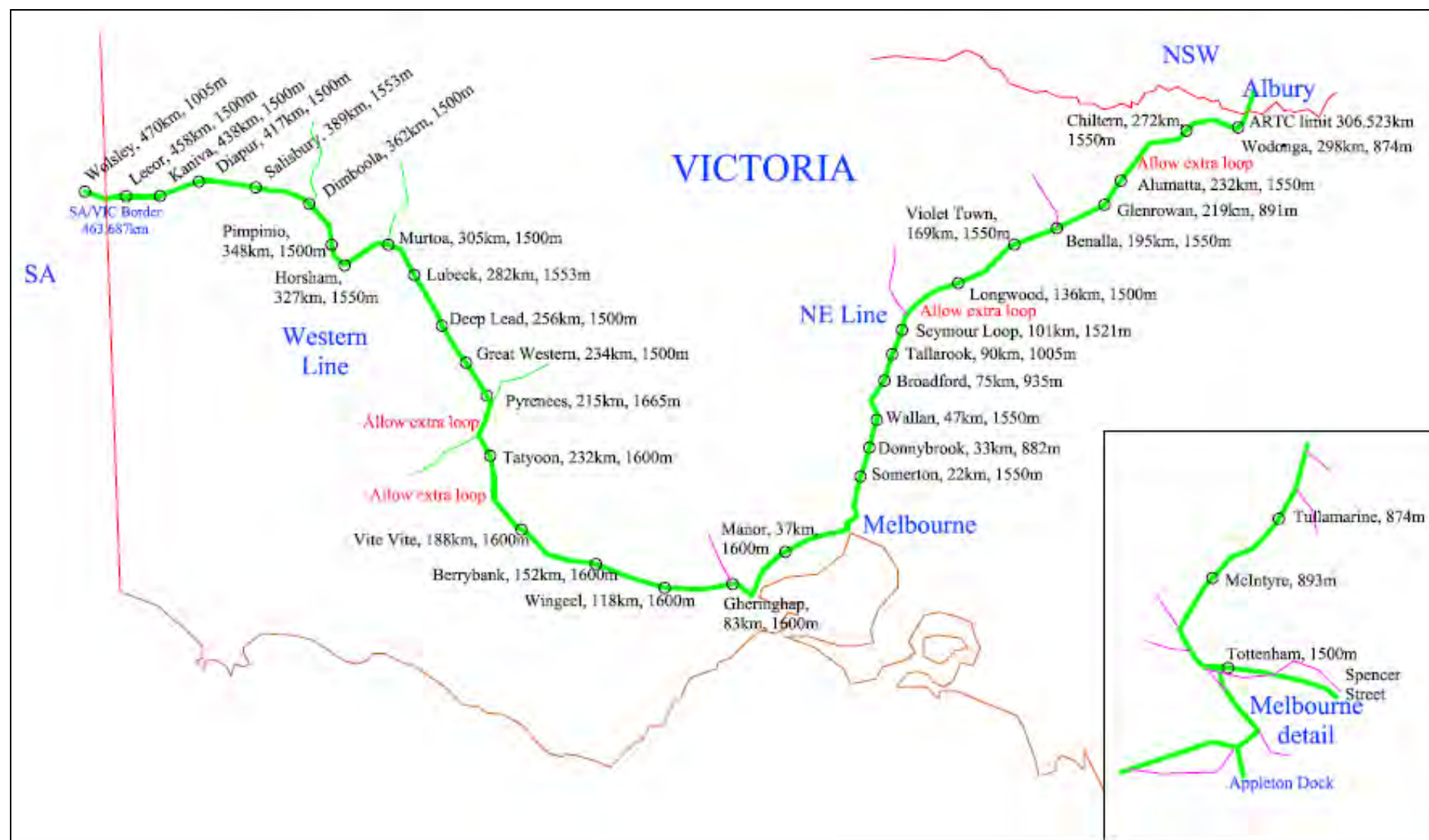




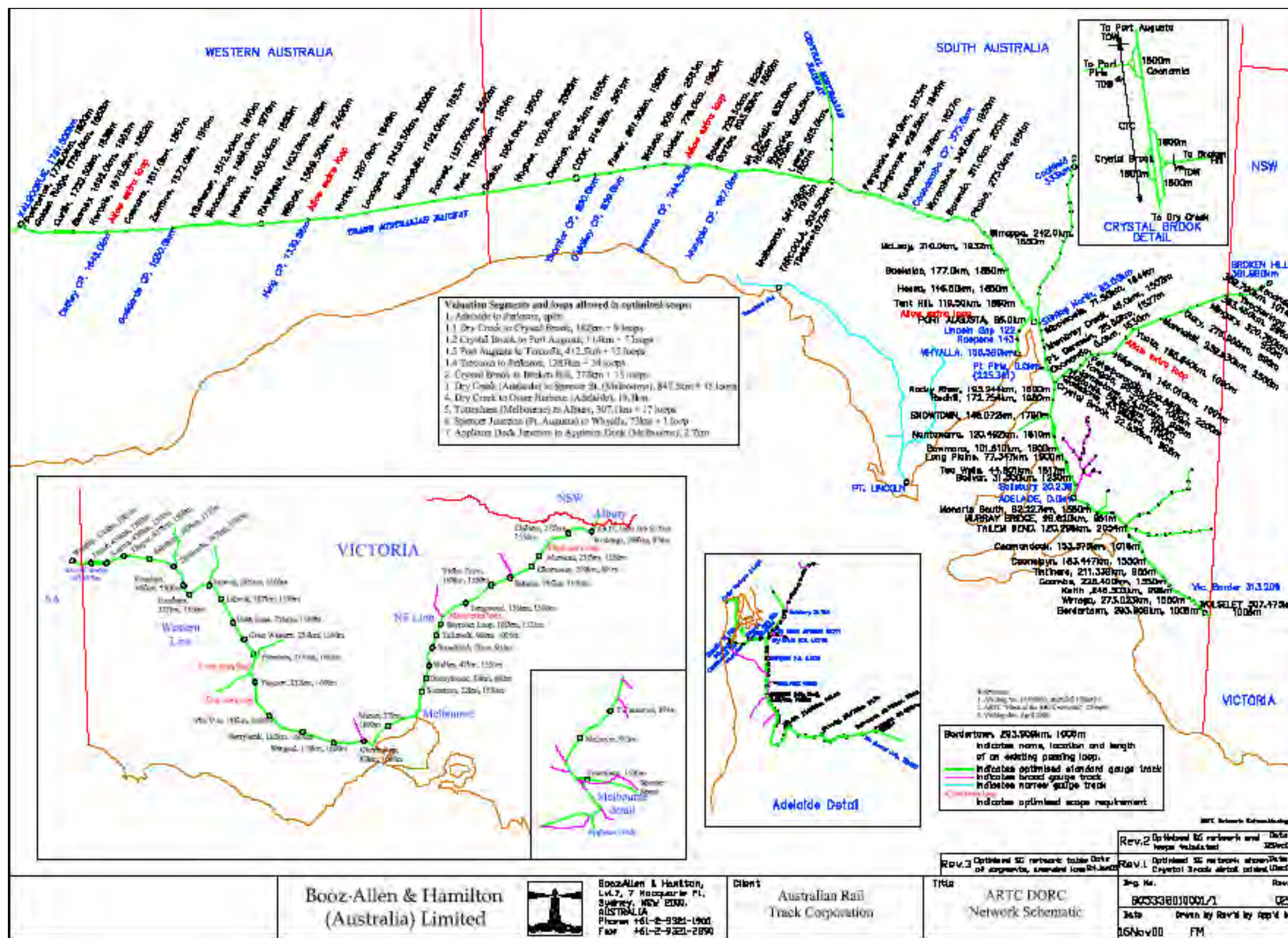








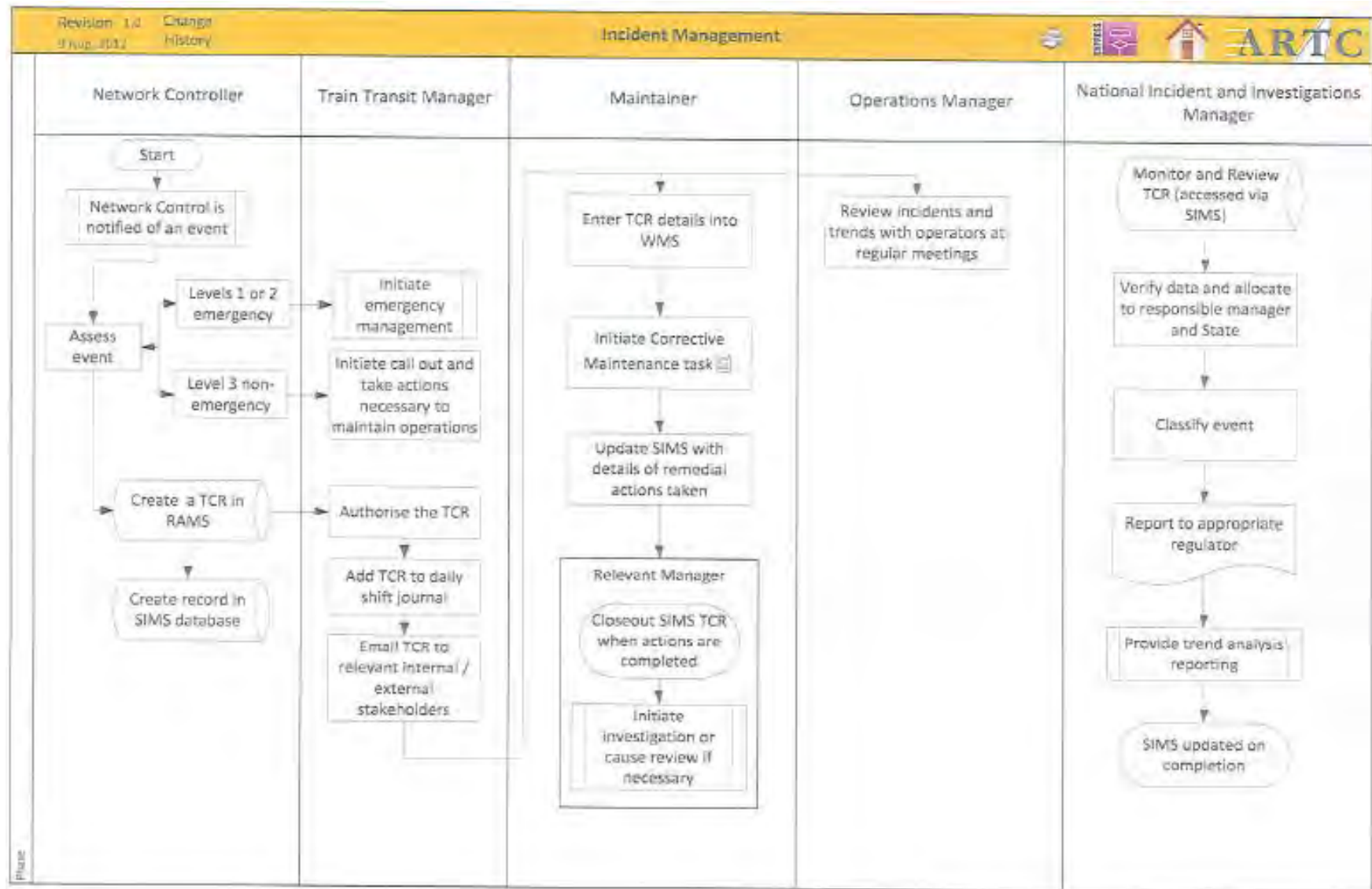




## **Appendix 2    ARTC Incident Management Process**









## **Appendix 3    Annexure J Sefton-Macarthur (SSFL Shared Corridor)**





## ANNEXURE J – SEFTON - MACARTHUR (SSFL SHARED CORRIDOR)

### 1. Introduction

In accordance with the Rail Safety Act, RailCorp and ARTC have an existing Interface Agreement which covers the network interfaces between the two organisations at Macarthur, Islington Junction, Unanderra, Enfield West, Marrickville, Campsie, Enfield, Chullora and Flemington South Jct. The Interface Agreement is a single legal document with a separate Annexure describing each network interface.

ARTC have constructed the Southern Sydney Freight Line (**SSFL**) between Sefton and Macarthur within RailCorp's existing Corridor. RailCorp has granted ARTC a licence (**SSFL Licence**) to allow ARTC to own and operate the SSFL within the RailCorp Corridor. This includes ARTC providing Network Control to the SSFL.

The SSFL has created a parallel network interface from Sefton to Macarthur between the existing RailCorp network and ARTC's SSFL. This area is called the Shared Corridor. The details of the parallel network interface between RailCorp and ARTC within the Shared Corridor are described in this Annexure J - Sefton - Macarthur (SSFL Shared Corridor) which forms part of the Interface Agreement between RailCorp and ARTC. The SSFL Side and the MPN (RailCorp Metropolitan Network) Side of the Shared Corridor are shown on the diagram in section 5 of this Annexure J.

This Annexure J describes the Shared Corridor interfaces between Sefton and Macarthur (Land, Operational, Train Radio, Infrastructure, Possession and Contacts), in a similar manner to the way in which existing network interfaces are described. In addition, section 6 (Shared Corridor Protocol) of this Annexure J addresses the parallel network interface and the mitigation measures/protocols relating to the Danger Zone in the Shared Corridor.

## **2. Summary of SSFL Licence obligations**

### **2.1 Mutual Licence Obligations**

Both RailCorp and ARTC have a number of rights and obligations under the SSFL Licence.

Generally each organisation (RailCorp and ARTC) must:

- Use its best endeavours not to interfere with each other's operations within the Shared Corridor.
- Not make any change to respective safe working arrangements which impacts or has the potential to impact on the safe operation of the other party's rail network, without the consent of the other party.
- Advise the other of any proposed change to its safe working rules.
- Not do anything to reduce security to the Shared Corridor.
- Only provide access to the Shared Corridor to authorised persons and ensure that locks, gates and other security fittings accessed by that party are secured.
- Notify the other of its intention to operate within the Shared Corridor any heavy machinery, plant or equipment that has the potential to interfere with the other party's rail operations.
- Provide the other with sufficient prior notice of its proposed works program and related track possession requirements to enable the parties to co-ordinate proposed works in order to minimise any adverse impact of a party's works on the rail operations of the other party.
- Promptly notify the other party if it becomes aware of any damage to the other party's infrastructure which may adversely interfere with that party's rail operations.

### **2.2 ARTC Licence Obligations**

ARTC must:

- Comply with RailCorp's directions or conditions imposed by RailCorp relating to rights of entry to and exit from the MPN Side or any of RailCorp's infrastructure that are intended to minimise disruption to RailCorp's rail operations.
- Not interfere in any way with the permitted use of the Shared Corridor by a third party.
- Not damage or interfere with any fences, locks, gates or any other security fittings belonging to RailCorp or any third party in the Shared Corridor except in the case of or to prevent an Incident.
- Not construct or install any new infrastructure without prior RailCorp approval.
- Not extend or expand any existing ARTC Infrastructure on or in the Shared Corridor without RailCorp's prior approval. ARTC may reinstate or replace any ARTC Infrastructure which is substantially equivalent to the existing infrastructure and which does not increase any adverse impact on RailCorp.
- Not store any materials or equipment on the Shared Corridor without RailCorp's prior approval.
- Place all trade waste and garbage in appropriate receptacles and arrange for their appropriate and regular removal.

### **2.3 RailCorp Licence Obligation: Routine Works by RailCorp**

RailCorp Routine Works are normal, routine maintenance or repairs to RailCorp infrastructure that are unlikely to materially affect ARTC rail operations. In carrying out Routine Works RailCorp may access across, on, over or under ARTC infrastructure in the Shared Corridor at any time in order to carry out works with respect to any RailCorp infrastructure in the Shared Corridor (both the MPN and SSFL side).

In carrying out these Routine Works RailCorp must follow the requirements of the Interface Agreement, and in particular this Annexure J - Sefton - Macarthur (SSFL Shared Corridor)

including Section 6 (Shared Corridor Protocol) in a manner that minimises the risk of damage to the ARTC Infrastructure, RailCorp using its use best endeavours to ensure that, where possible any Routine Works do not interfere with the ongoing continuing rail operations on the ARTC network.

If such work is to be carried out on the SSFL side of the Shared Corridor RailCorp will provide ARTC with reasonable written notice of its intention to carry out such RailCorp Routine Works. The length of the notice to be dependent on the type of work to be carried out. However RailCorp does not need to obtain ARTC's permission to access the SSFL Side of the Shared Corridor unless it is specifically indicated in this Annexure, the applicable Network Rules or Shared Corridor Protocols.

Note: RailCorp must organise the appropriate level of protection and procedures with the ARTC Junee Network Controller required by the relevant Network Rules and the Shared Corridor Protocols prior to undertaking access and work on the SSFL Side of the Shared Corridor.

## **2.4 RailCorp Licence Obligations: Emergency or Safety works by RailCorp**

If required due to an Emergency or for urgent operational or safety reasons (such as potential or actual failure of RailCorp infrastructure), RailCorp may access across, on, over or under ARTC infrastructure in the Shared Corridor at any time in order to inspect, repair, maintain, renew, remove or replace any RailCorp infrastructure in the Shared Corridor. RailCorp has no right to repair-remove or replace any ARTC Infrastructure and when accessing & carrying out Emergency or safety work must do so in accordance with the requirements of this Annexure J taking reasonable steps to minimise the disruption to Rail Operations as is reasonable in the circumstances, and in a manner that minimises the risk of damage to the ARTC Infrastructure in the Shared Corridor.

RailCorp is required to notify ARTC of this type of access or works as soon as reasonably practicable if such works are to be conducted on the SSFL Side, but need not obtain ARTC's permission to such access or works unless specifically required by this Annexure J, the applicable Network Rules or Shared Corridor Protocols.

RailCorp must comply with the reasonable requirements of ARTC imposed for the purposes of safety or security; and the applicable Network Rules and all relevant Laws.

Note: RailCorp must organise the appropriate level of protection and procedures with the ARTC Junee Network Controller required by the relevant Network Rules and the Shared Corridor Protocols prior to undertaking Emergency or safety access and works on the SSFL Side of the Shared Corridor.

## **2.5 RailCorp Licence Obligations: RailCorp High Voltage Electrical Systems**

RailCorp must maintain and repair (or at its discretion remove) it's High Voltage Electrical Systems in the Shared Corridor in accordance with its Accreditation and the requirements of relevant Laws.

RailCorp will undertake this work in a manner that minimises the risk of damage to ARTC infrastructure in the Shared Corridor.

## **2.6 Clarification**

Any questions in relation to rights and obligations should in the first instance be referred to the position within the respective organisations that is responsible for the management of the Interface Agreement. Contact details can be found in schedule 4 of this Annexure J - Sefton - Macarthur (SSFL Shared Corridor).

### **3. Definition of interfaces**

#### **3.1 Land Boundary**

The Shared Corridor runs between Sefton Park East Junction at 21.285km (measured via Enfield Goods line) to 57.965km at Macarthur (measured via Granville line) where the Southern Sydney Freight Network (SSFL) and Metropolitan Passenger Network (MPN) lines run parallel i.e. SSFL Side and MPN Side respectively.

The SSFL passes under the Up & Down Bankstown lines at Sefton Dive.

The Leightonfield Yard Land and Shared Corridor Boundary's are located at 23.025km and 23.795km and in the six foot between the Leightonfield SSFL Main Line and Loop Lines between 23.025km and 23.795km.

The SSFL passes over the Up and Down Main South lines and under the Up & Down South West Rail lines at Glenfield.

SSFL assets located between Enfield West and Sefton Park South Junction are referenced to Goods line kilometres (via Enfield).

SSFL assets located between Sefton Park South Junction and Cabramatta Junction are referenced to Main South line kilometres (via Lidcombe).

SSFL assets located between Cabramatta Junction and Macarthur are referenced to South line kilometres (via Granville).

#### **3.2 Operational Boundaries**

##### **3.2.1 Train Control boundaries**

All Train Control on the RailCorp MPN is managed by RailCorp.

All Train Control on the ARTC SSFL is managed by the ARTC Sydney 2 Network Controller.

For details of Enfield West Train Control Boundaries refer to Annexure D.

For details of Macarthur Train Control Boundaries refer to Annexure A.

##### **3.2.2 Controlled Signal boundaries**

A signal control on the SSFL is managed by the ARTC Sydney 2 Network Controller. Refer to respective interface annexures for details of Controlled signal boundaries at Macarthur (Annexure A) and Enfield West (Annexure D).

##### **3.2.3 Track Possessions**

Possession planning for both the RailCorp Network and ARTC SSFL will be jointly programmed via the possession planning forums.

### 3.2.4 Train Radio boundary

#### CountryNet/NTCS (ICE):

CountryNet and ICE Train Radio coverage is continuous throughout the Shared Corridor on XLG Track 69 20.5 – 57.0km Sefton Park Jct – Macarthur, XLG Track 66 18.5 – 21km Enfield West – Sefton Park Jct, XLG Track 60 22.5 -23.0km Sefton Park Jct, XLG Track 70, 31.0-31.5km Canley Vale - Cabramatta and XLG Track 61 31.5-32km East Hills – Glenfield.

The ARTC Sydney 2 Network Controller will receive all CountryNet and NTCS calls made by trains operating on the SSFL and RailCorp's MPN network in the Shared Corridor (as defined above).

CountryNet and NTCS Emergency calls initiated in the Shared Corridor area will call the ARTC Sydney 2 Network Controller and also automatically call the RMC Goods Controller, RMC Ops Outer Controller and the relevant RailCorp Signallers to enable their participation as detailed below:

Network Controller	Track area	XLG Track KM	Called Signaller	Called Ops Controller	Called Controller
ARTC Sydney 2	Sefton Jct – Enfield West	Track 66 18.5 - 21km	Sefton	Outer	RMC Goods
ARTC Sydney 2	Sefton Jct – SSFL Dive	Track 60 22.5-23km	Sefton	Outer	RMC Goods
ARTC Sydney 2	Sefton Jct- Casula	Track 69 20.5-37.5km	Sefton	Outer	RMC Goods
ARTC Sydney 2	Casula - Glenfield	Track 69 38.0 – 40.5km	Sefton & East Hills	Outer	RMC Goods
ARTC Sydney 2	Glenfield - Ingleburn	Track 69 41.0 -46.0km	East Hills	Outer	RMC Goods
ARTC Sydney 2	Ingleburn - Minto	Track 69 46.5-50.0km	East Hills & Campbelltown	Outer	RMC Goods
ARTC Sydney 2	Minto – Macarthur	Track 69 50.5-57.0km	Campbelltown	Outer	RMC Goods
ARTC Sydney 2	Cabramatta (Canley Vale overlap)	Track 70 31-31.5km	Sefton	Outer	RMC Goods
ARTC Sydney 2	Glenfield (East Hills overlap)	Track 61 31.5 - 32km	East Hills	Outer	RMC Goods

CountryNet and ICE Emergency calls initiated in the adjacent RailCorp Network interface areas will call the RailCorp Goods Controller and also automatically call the ARTC Network Controller, RMC Ops Outer Controller and the relevant RailCorp Signallers to enable their participation as detailed below:

Network Controller	Track area	XLG Track KM	Called Signaller	Called Ops Controller	Called Controller
RMC Goods	Sefton Jct - Lidcombe	Track 69 20-17km	Sefton	Outer	ARTC Sydney 2 NC
RMC Goods	Sefton Jct - Yagoona	Track 60 22-20km	Sefton	Outer	ARTC Sydney 2 NC
RMC Goods	Fairfield - Canley Vale	Track 70 28.5-30.5km	Sefton	Outer	ARTC Sydney 2 NC
RMC Goods	Glenfield - East Hills	Track 61 29 - 31km	East Hills	Outer	ARTC Sydney 2 NC

CountryNet and ICE Emergency calls initiated in the adjacent ARTC Network interface area will call the ARTC Network Controller and also automatically call the RailCorp Goods Controller, RMC Ops Outer Controller and the relevant RailCorp Signallers to enable their participation as detailed below:

Network Controller	Track area	XLG Track KM	Called Signaller	Called Ops Controller	Called Controller
ARTC Sydney 2	Macarthur - Glenlee	Track 69 57.5-60.0km	Campbelltown	Outer	RMC Goods

ARTC & RailCorp XLG & NTCS configurations are managed by the NTCS configuration management process and detailed in the Network Authority definition document.

#### **MetroNet:**

There is no MetroNet train radio coverage on the SSFL. MetroNet Train Radio system provides full coverage on RailCorp's network in the Shared Corridor. Operation of Metronet train radio calls in the Shared Corridor will be unaltered, calling the local RailCorp Signaller and escalating to the Ops Outer Controller.

#### **WB Radio:**

RailCorp use WB radio throughout the Shared Corridor with transmission to RailCorp's Signal Boxes where the Network Controller works under the direction of the RailCorp Train Controller (RMC).

WB radio use in the Shared Corridor will be unaltered with transmissions being received by the RailCorp local Signaller.

Communications system Operation and call management is detailed in Section 6.6

### 3.3 Infrastructure Boundaries

#### 3.3.1 ARTC is responsible for:

##### Electrical

- Substation Low voltage power supply to support ARTC signals, relay rooms and other infrastructure on the SSFL within the Shared Corridor.
- The 1500VDC OHW supply and infrastructure on the RailCorp Main Southern line adjacent to the SSFL is owned and maintained by RailCorp. ARTC must ensure that its staff and contractors working in the Shared Corridor hold appropriate qualifications to work around the electrical infrastructure.
- ARTC must not plant any vegetation that will infringe on the RailCorp High Voltage Transmission line clearances at mature growth.
- Safe working clearances must be maintained when working near all electrical assets. Any power outage of RailCorp electrical equipment must be arranged through RailCorp's Electrical Engineer for the relevant district.
- ARTC is responsible for maintenance of the ARTC electrical circuit cable connection to the Sefton Dive Pump station exclusive of the "CT isolator for Drainage pumping station" switch on the Sefton Ausgrid Electrical switchboard. Access to the Sefton Ausgrid Electrical Switchboard is via an Ausgrid Abloy key.
- All low voltage assets associated with Leightonfield yard and the SSFL on the City side of 23.795km including yard lighting but exclusive of the entire 1500 HV electrical network.
- ARTC is responsible for the Leightonfield low voltage yard lighting including the following poles:

Pole reference	Location
LV PL S11	LEIGHTONFIELD SIDING Down Side
LV PL S14	LEIGHTONFIELD SIDING Down Side
LV PL S17	LEIGHTONFIELD SIDING Down Side
LV PL S18	LEIGHTONFIELD SIDING Down Side
LV PL S19	LEIGHTONFIELD SIDING Down Side
LV PL S20	LEIGHTONFIELD SIDING Down Side
LV PL S9	LEIGHTONFIELD SIDING Down Side
LV PL S5	LEIGHTONFIELD between SSFL Main & Loop
LV PL S6	LEIGHTONFIELD between SSFL Main & Loop
LV PL S7	LEIGHTONFIELD between SSFL Main & Loop
LV PL S23.216	LEIGHTONFIELD between SSFL Main & Loop
LV PL S8	LEIGHTONFIELD between SSFL Main & Loop
LV PL S23.289	LEIGHTONFIELD between SSFL Main & Loop
LV PL S10	LEIGHTONFIELD between SSFL Main & Loop
LV PL S12	LEIGHTONFIELD between SSFL Main & Loop
LV PL S13	LEIGHTONFIELD between SSFL Main & Loop
LV PL S15	LEIGHTONFIELD between SSFL Main & Loop
LV PL S16	LEIGHTONFIELD between SSFL Main & Loop
LV PL S21	LEIGHTONFIELD between SSFL Main & Loop
LV PL S22	LEIGHTONFIELD between SSFL Main & Loop

- ARTC is responsible for the Leightonfield low voltage yard lighting attached to RailCorp feeder pole 40A 717 ie:

Pole reference	Location
ARTC Yard Lighting on RailCorp feeder - pole 40A 717	Leightonfield SSFL Loop Up Side, Sydney End.

### **Civil**

- Management of all ARTC civil infrastructure and earthworks on the SSFL side of the Shared Corridor between 21.285km (measured via Enfield Goods line) and 57.965km at Macarthur (measured via Granville line) including but exclusive of RailCorp infrastructure.
- Management of Cess and corridor drainage pipes under the SSFL line from the outlet pipe on the SSFL side of the intertrack drainage pit, pipe or sumps located between the SSFL & RailCorp MPN tracks.
- Management of all civil infrastructure on the Country side of 57.965km at Macarthur on the SSFL, UP Main and DOWN Main.
- ARTC will not carry out works affecting the integrity of the structures associated with RailCorp stations, the RailCorp passenger lines or RailCorp assets in the Shared Corridor.
- Maintenance of ARTC track to survey alignment to ensure agreed clearances.
- Removal of rubbish and Vegetation control on the SSFL side of the Corridor.

### **Access**

- Access roads and gates along the SSFL Shared Corridor will be maintained by RailCorp but may be accessed by ARTC.
- RailCorp will require access to the Sefton Dive and Glenfield Flyover for maintenance & inspections.

### **Structures**

- ARTC will maintain all ARTC structure assets including noise walls, cuttings, shoring, piling, retaining walls/works, embankments and earthworks on the SSFL side of the Corridor.
- ARTC is responsible for Graffiti management on its assets including both sides of SSFL side Noise Walls.

### **Sefton Dive**

- ARTC will maintain the following specific assets associated with the Sefton Dive structure as detailed in the table below:

Sefton Dive Element	Maintenance responsibility	Section 5 Photo Reference
Dive structure including retaining walls, pump station, Main Control Room	ARTC	5.2 -1, 5.3 - 1, 5.4 - 1 & 5.5 - 1
Hydraulic (concrete) Overbridge structure	ARTC	5.2 - 2
Bankstown line bridge structure	ARTC	5.2 – 3, 5.4 - 2



Auburn Road Overbridge extension	ARTC	5.3 - 2
Auburn Road tunnel structure	ARTC	5.3 - 3
Services Overbridge low level (steel)	ARTC	5.2 - 4
Services Overbridge high level (steel)	ARTC	5.3 - 4
Services Overbridge – external/third party services which extends over SSFL and RailCorp Bankstown lines.	ARTC	5.3 - 5

#### **Glenfield Flyover**

- ARTC will maintain the following specific assets associated with the Glenfield Flyover as detailed in the table below:

Glenfield Flyover Element	Maintenance responsibility	Section 5 Photo Reference
Flyover approaches and tunnel structure	ARTC	5.14

#### **Underbridges, Underpasses and culverts**

- ARTC maintains the SSFL Underbridges and culverts located at:

Location	Structure	KM
Prospect Creek, Carramar	Underbridge	26.150
Culvert, Cabramatta	Culvert	27.860
Sussex Street, Cabramatta	Underbridge	32.860
Cabramatta Creek, Cabramatta	Underbridge	32.880
Culvert, Warwick Farm	Culvert	34.400
Georges River Bridge, Liverpool	Underbridge	35.130
Liverpool Viaduct, Liverpool	Underbridge	35.955
Shepherd Street, Liverpool	Underbridge	36.290
Culvert, Liverpool	Culvert	36.960
Mill Park 2, Liverpool	Underbridge	37.180
Culvert, Liverpool	Culvert	37.185
Mill Park 1, Liverpool	Underbridge	37.260
Culvert, Liverpool	Culvert	37.265
Woodbrook Road, Casula	Underbridge	37.550
Glenfield Creek, Glenfield	Underbridge	38.980
Culvert, Glenfield	Culvert	40.540
Cast in place Junction Pit No.1, Glenfield	Culvert	40.565
Glenfield Substation Viaduct	Underbridge	40.580
Culvert, Glenfield	Culvert	41.040
Bunbury Curran Creek, Ingleburn	Underbridge	47.170
Minto Viaduct, Minto	Underbridge	48.335
Culvert, Minto	Culvert	49.325
Culvert, Minto	Culvert	50.040
Culvert, Minto	Culvert	50.415
McBarrons Creek Culvert Bridge, Minto	Culvert Bridge	51.150

Culvert Leumeah	Culvert	52.150
Culvert Leumeah	Culvert	52.350
Culvert Macarthur	Culvert	52.430
Culvert Leumeah	Culvert	52.890
Culvert Campbelltown	Culvert	53.625
Culvert Campbelltown	Culvert	53.810
Culvert, Macarthur	Culvert	54.880
Culvert Fishers Ghost Creek, Campbelltown	Culvert	55.375
Bow Bowling Creek Culvert, Campbelltown	Culvert	55.680
Burunji Creek under Narallen Rd Campbelltown	Culvert	55.840
Bow Bowling Creek Bridge, Macarthur	Underbridge	56.995
Culvert Macarthur	Culvert	56.400
Culvert Macarthur	Culvert	57.720

- ARTC maintains the vehicle over height crash beam and signage attached on the Hector Street, Chester Hill Underbridge (Down SSFL side only, See Photo 5.8). RailCorp approval is required prior to removal of the vehicle over height crash beam and signage.
- ARTC maintains culverts under the SSFL line to the mid point between the SSFL & RailCorp MPN tracks.

### **Level Crossings**

- ARTC maintains Emergency and Service Level Crossings where they cross SSFL track and to the midpoint between the SSFL and RailCorp MPN tracks.
- ARTC maintained level crossings are located at:

Location	KM
Service Crossing, Leightonfield – SSFL Main Line	23.530
Service Crossing, Leightonfield – SSFL Main and Loop lines, No1 & No2 siding)	23.640
Emergency crossing, Liverpool - SSFL Main Line	35.045
Emergency crossing, Casula - SSFL Main Line	38.838
Service Crossing, Glenfield - SSFL Main and Loop Lines	39.590
Service Crossing, Campbelltown - SSFL Main Line	54.350
Service Crossing, Campbelltown - SSFL Main Line	55.245

### **Signals**

- All ARTC signalling infrastructure associated with the SSFL in the Shared Corridor will be maintained by ARTC.

### **Fault mitigation cross bonding**

- ARTC is responsible for fault mitigation traction return bonding within the Sefton – Macarthur Shared Corridor and Leightonfield yard area between the ARTC Track and up to the RailCorp Traction negative return busbars.
- Maintenance of fault mitigation traction return bonding including connection/disconnection must be coordinated through RailCorp's Electrical Engineer for the relevant district.

- The SSFL is not to be used in traction current calculations.

SSFL Fault mitigation traction return bonds are located at:

Identification No	Location	Bond Description
1A	21.294km	City end of Sefton Dive (measured via Enfield) SP3 signal
1	22.032km	Sefton Park South Junction adjacent to RailCorp signal SP31 (measured via Enfield)
2	OHWS S21+442	Country side of Sefton station (measured via Lidcombe)
3	22.829km	Leightonfield SSFL Loop (and future Main) adjacent to RailCorp signal SP61 (measured via Lidcombe)
4	OHWS S24+400	Leightonfield Section Hut, Down Main to SSFL Loop & SSFL Main
5	OHWS S25+284	Adjacent to SP12 signal, SSFL to Down Main
6	OHWS S26+526	SSFL to Down Main
7	OHWS S27+574	Cabramatta Substation, SSFL to Down Main Substation negative busbar
8	OHWS S28+862	SSFL to Down Main
9	OHWS S29+946	SSFL to Down Main
10	OHWS 31+400	Signal LL203 Liverpool, SSFL to Down refuge
11	OHWS S32+267	Liverpool Station South, SSFL to Down Main
12	OHWS S36+500	Liverpool Section hut, SSFL to Down Main Substation negative busbar
13	OHWS S37+859	SSFL to Up Main
14	OHWS S37+990	Casula Station South, SSFL to Down Main
15	OHWS S40+678	Glenfield Substation, SSFL to Up Main Substation negative busbar
16	OHWS 41+820	Glenfield Station North, SSFL to Up Main
17	OHWS S42+850	New Glenfield Substation, SSFL to up Main
18	OHWS 43.983km	Macquarie Fields Substation, SSFL to Substation negative busbar
19	OHWS S45+470	IN5 Signal, SSFL to Up Main
20	OHWS S46+606	IN22 Signal, SSFL to Up Main
21	OHWS 47.633km	Minto Section Hut, SSFL to Up Main Substation negative busbar
22	OHWS S48+800	SSFL to Up Main
23	OHWS S49+770	Minto Platform Down end, (MO3 signal) SSFL to Up Main

24	OHWS S50+458	SSFL to Up Main
25	OHWS S51+320	Leumeah Substation, SSFL to Up Main sub station negative busbar
26	OHWS S54+868	SSFL to Dn Main
27	53.800km	SSFL to Up Main
28	OHWS S55+182	Campbelltown Sectioning Hut SSFL to No ?? siding
29	OHWS 56+659	Macarthur Station Down end, SSFL to Turnback Road

#### **Phoenix Track Overview Screens**

- ARTC is responsible for the provision and maintenance of Phoenix Track Overview Screens located in RailCorp Network Control Centres and Signal Boxes including RailCorps Sydenham Complex (Sefton Panel), Enfield Signal Box, Campbelltown Signal Box and RMC (Goods Control desk).
- The Phoenix Track Overview screens are maintained by ARTC NSW Control systems group contactable via the Junee NCCS Train Transit Manager (refer to contact list, section 4).
- ARTC require access to Sydenham Complex, Enfield Signal Box, Campbelltown Signal Box and RMC to perform maintenance.

#### **ARTC Track Genesis Data Links**

- ARTC is responsible for the provision and maintenance of ARTC Track Genesis Data Links from Junee to RailCorps Sydenham Computer Room and Central (West Wing).
- The ARTC – RailCorp maintenance interface is the Serial connector on the rear of the Moxa protocol convertor unit.
- The ARTC Track Genesis Data Links are maintained by ARTC NSW Control systems group contactable via the ARTC Service Desk on 1300 785 747.
- Configuration of Atrics track interfaces, train describer data and link connections will be jointly managed by ARTC & RailCorp and not altered without approval.
- ARTC require access to RailCorp's Sydenham Complex Computer room and Central Station West Wing Apparatus Room to perform maintenance.

#### **Telemetry Communications**

- ARTC is responsible for Leightonfield Yard, Glenfield Crossing Loop and Macarthur Telemetry communications for ARTC SSFL signalling control from Junee NCCS.

#### **Communications**

ARTC is responsible for:

- Maintenance of ARTC track side telephones associated with the SSFL
- Maintenance of the RMC – Junee NTCS communications link

- Maintenance of ARTC train radio communications, VCS and telephony systems to support the automatic Train Radio Emergency call routing and Hotlines for calling/conferencing telephony calls as set out in the Shared Corridor Protocols (see Section 6).
- Maintenance of the agreed configuration for Train Radio system operation in conjunction with RailCorp as per the NTCS configuration management process.
- Regular testing of the Train Radio Emergency call functionality will be conducted by ARTC, with support from RailCorp, to verify operation of Shared Corridor Emergency Calls including conferencing of adjacent track area Controllers and Signallers.

Communications system Operation and call management is detailed in Section 6.6

#### **SSFL Cable Route**

- ARTC is responsible for the maintenance of its cables, conduits, troughing and pits within the SSFL Cable Route (RailCorp and ARTC combined services route). Refer to section 3.3.2 for SSFL Cable Route details.

### **3.3.2 RailCorp is responsible for:**

#### **Electrical**

All electrical assets inclusive of:

- RailCorp network Low voltage electrical assets on the City side of 57.965km at Macarthur including station supplies in the Shared Corridor.
- The entire 1500V DC and HV electrical networks
- For clearing vegetation to maintain statutory clearances to their High Voltage Transmission lines in the Shared Corridor and RailCorp network.
- Management of all HV transmission lines & cables excluding utility HV services but including 11kv No 687 and 33Kv No 713, 717, 7W4, 733, 735, 7M1, 731/1, 731/2, 731/3, 731/4 & 743 overhead cable feed and 240V & 415V buried RailCorp powerlines.
- RailCorp is responsible for maintenance of the RailCorp back up electrical supply circuit cable connection to SP7 signal location exclusive of the "unmetered main switch LOC SP7 supply" switch on the Sefton Ausgrid electrical switchboard. Access to the Sefton Ausgrid Electrical Switchboard is via an Ausgrid Abloy key.

#### **Civil**

- Management of all RailCorp civil infrastructure, earthworks and Cess and MPN Track drainage on the RailCorp MPN side of the Shared Corridor between 21.285km (measured via Enfield Goods line) and 57.965km at Macarthur (measured via Granville line) relevant to the RailCorp passenger lines.
- RailCorp maintains Corridor Drainage including intertrack (pit, pipe and sump) drainage exclusive of the outlet pipes on the SSFL side of the drainage pit, pipe or sumps located between SSFL and RailCorp MPN tracks. RailCorp will maintain the "flow" of Corridor drainage including intertrack (pit, pipe & sump) drainage (under MPN and SSFL track).
- Maintenance of Corridor fencing and access gates in the Shared Corridor will be performed by RailCorp.

- Maintenance of RailCorp track to survey alignment to ensure agreed clearances.
- Removal of rubbish and Vegetation control on the RailCorp (Up) side of the Corridor.

### **Access**

Access roads and gates on both sides of the Shared Corridor will be maintained by RailCorp but may be accessed by ARTC.

- RailCorp will require access to the Sefton Dive and Glenfield Flyover for maintenance & inspections.

### **Structures**

- RailCorp will maintain all structure assets including noise walls, cuttings, shoring, piling, retaining walls/works, embankments and earthworks on the RailCorp MPN side of the SSFL Shared Corridor.
- RailCorp will maintain structures, land, vegetation and landscaping associated with its station precincts in the Shared Corridor. RailCorp will not carry out works that affect the integrity of the ARTC assets.
- RailCorp will maintain the Chester Hill (22.090km) HV Electrical route services bridge on the SSFL (Down) side of the Corridor. (See photo 5.6)
- RailCorp will maintain the access walkway beneath the Miller Road Overbridge, Leightonfield (22.880km) on the SSFL (Down) side of the Corridor. (See photo 5.7)
- RailCorp maintains the disused Prospect Creek pedestrian bridge located between the RailCorp MPN and SSFL tracks.
- RailCorp is responsible for Graffiti management on its assets including MPN side Noise Walls.

### **Sefton Dive**

- RailCorp will maintain the following specific assets associated with the Sefton Dive structure as detailed in the table below:

<b>Sefton Dive Element</b>	<b>Maintenance responsibility</b>	<b>Section 5 Photo Reference</b>
RailCorp Cables within Services Overbridge low level (steel)	RailCorp	5.2 - 5
RailCorp Cables within Services Overbridge high level (steel)	RailCorp	5.3 - 6
Service Overbridge Sefton triangle access for RailCorp	RailCorp	5.5 - 2
Bankstown line track infrastructure on ARTC maintained Bankstown line bridge	RailCorp	5.2 - 6
Corridor Fencing atop Dive parapets	RailCorp	5.3 - 7 & 5.5 - 3

- RailCorp will maintain water flow across, upstream and downstream of ARTC Hydraulic (concrete) bridge structure.

### **Glenfield Flyover**

- RailCorp will maintain the following specific assets associated with the Glenfield Flyover as detailed in the table below:

Glenfield Flyover Element	Maintenance responsibility	Section 5 Photo Reference
OHW mounting brackets, earth wiring and signage assets	RailCorp	5.14, 5.15

### Overbridges

- Maintenance and inspections of the Overbridges located at:

Location	KM
Auburn Road, Sefton (Bankstown line span excluding bridge extension over SSFL)	21.700
RailCorp Service Road, Sefton	21.800
Sefton Station Footbridge, Sefton	21.144
Chester Hill Road, Chester Hill	22.199
Miller Road, Leightonfield (including centre wing walls)	22.872
Leightonfield Station Footbridge, Leightonfield	23.687
Woodville Road, Villawood	24.301
Villawood Station Footbridge, Villawood	24.385
Horsley Drive, Villawood	25.271
Fourth Avenue Footbridge, Cabramatta	27.247
Bareena Street, Cabramatta	27.694
Cabramatta Station Footbridge, Cabramatta	32.000
Cabramatta Road, Cabramatta	32.117
Hume HighwayNo1, Warwick Farm	33.972
Hume HighwayNo2, Warwick Farm	33.988
Station Footbridge, Warwick Farm	34.090
Hospital Road, Liverpool	34.950
Hospital Footbridge, Liverpool	34.970
Newbridge Road, Liverpool	35.815
M5 Overbridge, Liverpool	37.410
Casula Station Footbridge, Casula	38.800
Cambridge Road, Glenfield	41.037
Glenfield Station Footbridge	41.850
RailCorp South West Rail Link, Glenfield	42.200
Macquarie Fields Station Footbridge, Macquarie Fields	43.800
Henderson Road, Macquarie Fields	44.850
Ingleburn Station Footbridge, Ingleburn	45.600
Minto Station Footbridge, Minto	49.732
Ben Lomond Road, Minto	49.946
Rose Payton Drive, Leumeah	52.016
Leumeah Station Footbridge	52.550
Campbelltown Road, Luemeah	53.420
Campbelltown Station Footbridge	54.600
Narellan Road, Macarthur	55.821
Gilchrist Road, Macarthur	56.230
Gilchrist Road, Macarthur	56.236
Macarthur Station Footbridge	56.520

### **Underbridges, Underpasses & Culverts**

- RailCorp maintains the Underbridges that support MPN tracks.
- RailCorp maintains the Campbelltown staff underpass beneath the SSFL.

Location	KM
Campbelltown staff underpass (Campbelltown yard beneath SSFL track).	51.600

- RailCorp maintains the common walkways, covers and ballast screens between RailCorp and SSFL underbridges.
- RailCorp maintains culverts under the MPN lines to the mid point between the SSFL & RailCorp MPN tracks
- RailCorp will maintain the “flow” of culverts under both the SSFL & MPN.

### **Level Crossings**

- RailCorp maintains Emergency and Service Level Crossings where they cross MPN tracks and to the midpoint between the MPN and SSFL tracks.
- RailCorp maintained level crossings are located at:

Location	KM
Emergency crossing, Liverpool - MPN Lines	35.045
Emergency crossing, Casula - MPN Lines	38.838

### **Signals**

- Management of all RailCorp MPN track signalling infrastructure

### **Fault mitigation cross bonding**

- RailCorp is responsible for connection of fault mitigation traction return bonding within the Sefton – Macarthur Shared Corridor and Leightonfield yard areas between the ARTC and RailCorp lines to the Traction negative return busbars.
- Maintenance of fault mitigation traction return bonding including connection/disconnection must be coordinated through RailCorp’s Electrical Engineer for the relevant district.

### **Phoenix Track Overview Screens**

- RailCorp is responsible for the provision of power for the Phoenix Track Overview screens located at RailCorps Sydenham Complex (Sefton Panel), Enfield Signal Box, Campbelltown Signal Box and RMC (Goods Controller desk).

### **ARTC Track Genesis Data Links**

- RailCorp is responsible for the connection of the Genesis Data Links from the Moxa protocol convertor unit cable to the RailCorp ATRICs system.
- RailCorp is responsible for the provision of power to equipment located at Sydenham and Central for the ARTC Track Genesis Data Links.
- Configuration of Atrics track interfaces, train describer data and link connections will be jointly managed by ARTC & RailCorp and not altered without approval.



## Communications

RailCorp is responsible for:

- the maintenance of all RailCorp communications cable assets, systems and track side telephones relevant to the RailCorp passenger lines
- Maintenance of the SC9 CountryNet Train Radio System equipment.
- Maintenance of MetroNet Train Radio equipment
- Maintenance of WB Train Radio equipment
- Maintenance of RailCorp train radio communications, VCS and telephony systems to support the automatic Train Radio Emergency call routing and Hotlines for calling/conferencing telephony calls as set out in the Shared Corridor Protocols (see Section 6).
- Maintenance of the agreed configuration for Train Radio system operation in conjunction with ARTC as per the NTCS configuration management process.
- Regular testing of the RailCorp Train Radio functionality will be conducted by RailCorp to verify operation of the SC9 system including normal, broadcast & emergency calls.

Communications system Operation and call management is detailed in Section 6.6

## SSFL Cable Route

The SSFL Cable Route (RailCorp and ARTC combined services route) exists between:

Start Chainage	End Chainage	UP/DOWN Side or ULX	Route type	Details
35+129	35+339	DOWN	GST	ARTC/ RailCorp HV
35+339	35+949	DOWN	Pit and pipe	ARTC/ RailCorp HV
35+949	36+040	DOWN	GST	ARTC/ RailCorp HV
36+040	36+290	DOWN	Pit and pipe	ARTC/ RailCorp HV
36+290	36+391	DOWN	GST	ARTC/ RailCorp HV
36+483	36+574	DOWN	Pit and pipe	ARTC/ RailCorp LV
37+050	37+120	DOWN	Pit and pipe	ARTC/ RailCorp HV
37+120	37+277	DOWN	GST	ARTC/ RailCorp HV
37+277	37+550	DOWN	Pit and pipe	ARTC/ RailCorp HV
40+800	41+580	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs
41+580	43+913	TBC	TBC	ARTC/ RailCorp TBC (GJA scope)
47+585	47+800	UP	Pit and pipe	ARTC/ RailCorp Comms
47+800	47+880	UP	GST	ARTC/ RailCorp Comms
47+880	48+301	UP	Pit and pipe	ARTC/ RailCorp Comms
48+301	48+610	UP	GST	ARTC/ RailCorp Comms
48+610	48+895	UP	Pit and pipe	ARTC/ RailCorp Comms
48+895		ULX		ARTC/ RailCorp Comms and Sigs
48+895	49+315	DOWN	Pit and pipe	ARTC/ RailCorp Comms and Sigs
49+315	49+340	DOWN	GST	ARTC/ RailCorp Comms and Sigs
49+340	49+590	DOWN	Pit and pipe	ARTC/ RailCorp Comms and Sigs
49+590	49+770	DOWN	GST	ARTC/ RailCorp Comms and Sigs
49+770		ULX		ARTC/ RailCorp Comms and Sigs
49+770	49+885	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs
49+885	49+985	UP	GST	ARTC/ RailCorp Comms and Sigs
49+985	50+595	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs
52+000	51+070	UP	GST	ARTC/ RailCorp Comms and Sigs
51+070	52+130	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs
52+130	52+150	UP	GST	ARTC/ RailCorp Comms and Sigs
52+150	52+315	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs

52+315	52+355	UP	GST	ARTC/ RailCorp Comms and Sigs
52+355	52+430	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs
52+430		ULX (SSFL track)		ARTC/ RailCorp Comms and Sigs
52+430	52+480	UP	GST	ARTC/ RailCorp Comms and Sigs
52+480	52+510	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs
52+510	52+725	UP	GST	ARTC/ RailCorp Comms and Sigs
52+725	52+780	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs
52+780		ULX (SSFL track)		ARTC/ RailCorp Comms and Sigs
52+780	53+200	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs
53+200		ULX		ARTC/ RailCorp Comms and Sigs
53+200	53+375	DOWN	Pit and pipe	ARTC/ RailCorp Comms and Sigs
53+375	53+440	DOWN	Under bore	ARTC/ RailCorp Comms and Sigs
53+440	53+610	DOWN	Pit and pipe	ARTC/ RailCorp Comms and Sigs
53+610	53+655	DOWN	Under bore	ARTC/ RailCorp Comms and Sigs
53+655	53+810	DOWN	Pit and pipe	ARTC/ RailCorp Comms and Sigs
53+810	54+200	DOWN	GST	ARTC/ RailCorp Comms and Sigs
54+200	54+445	DOWN	Pit and pipe	ARTC/ RailCorp Comms and Sigs
54+445	54+630	DOWN	GST	ARTC/ RailCorp Comms and Sigs
54+630		ULX		ARTC/ RailCorp Comms and Sigs
54+630	54+880	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs
56+665	56+975	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs
56+975	57+010	UP	GST	ARTC/ RailCorp Comms and Sigs
57+010	57+930	UP	Pit and pipe	ARTC/ RailCorp Comms and Sigs

- RailCorp is responsible for the maintenance of the SSFL Cable Route exclusive of ARTC cables, conduits, troughing and pits.

### 3.4 Operating Procedure

#### 3.4.1 Operational Responsibilities - Train Control

##### 3.4.1.1 ARTC

All Train Control for the SSFL will be performed by the ARTC Sydney 2 Network Controller in line with Shared Corridor protocols (see Section 6).  
ARTC is responsible for Train Control in the adjoining Leightonfield Yard, Enfield West and DIRN operational areas.

##### 3.4.1.2 RailCorp

The Sefton Area Controller at Sydenham Signal Box is responsible for operating the signalling equipment and the issue of authorities for the movement of rail services on the RailCorp Shared Corridor passenger lines between Sefton Park Junction and Casula and from the ARTC Enfield West interface on the Goods line at Sefton Park Junction.

The East Hills Area Controller at Sydenham Signal Box is responsible for operating the signalling equipment and the issue of authorities for the movement of rail services on the RailCorp Shared Corridor passenger lines between Casula and Minto exclusive.

The Campbelltown Signaller is responsible for operating the signalling equipment and the issue of authorities for the movement of rail services on the RailCorp Shared Corridor passenger lines between Minto and Macarthur.

The RailCorp Operations Outer Controller (RMC) is responsible for authorising the working of all rail traffic movements on the RailCorp Shared Corridor Passenger lines and from the ARTC Enfield West interface on the Goods line at Sefton Park Junction.

The RailCorp Goods Train Controller (RMC) is responsible for the management of RailCorps CountryNet/ICE train radio system and authorising the working of all rail traffic movements from the ARTC Enfield West interface on to the Goods lines at Chullora Jct.

*Note: Movements from both the UP and DOWN Main lines to the Sydney South Freight Line (SSFL) require no intervention from the Campbelltown signaller.*

RailCorp will manage the operation of its stations along the Shared Corridor. Details of RailCorp area operations are set out in the relevant NLA's.

#### **3.4.1.3 Movement of rail traffic and maintenance operations**

The persons described in paragraphs 3.4.1.1 and 3.4.1.2 above must communicate as often as is necessary to facilitate the safe and efficient management of rail traffic movements and maintenance operations in the Shared Corridor. (see Section 6.6.3 for routine call management details)

#### **3.4.1.4 Emergency and incident management**

Emergency and incident management in the Shared Corridor will be managed by ARTC and RailCorp in accordance with the Shared Corridor protocols (see Section 6).

Where an incident occurs on either side of the land boundary identified in 3.1, the incident will be managed in accordance with incident management plan of that network owner.

Where an incident occurs across the land boundary identified in 3.1, the incident will be managed co-operatively by the RMC Shift Manager and the ARTC North/South Operations Manager who will come to a clear understanding on which party will manage the incident, taking in account issues such as network impact and proximity of incident site management resources.

Where the incident across the land boundary identified in 3.1 impacts on the operation of **passenger** trains, RailCorp will manage the incident unless otherwise agreed by the RMC Shift Manager and the ARTC North/South Operations Manager.

### **3.5 Possession boundaries**

Possessions in the Shared Corridor that impact on the adjoining network will be managed as per the Shared Corridor protocols (see Section 6 of this Annexure J).

For Macarthur possession boundaries refer to Enfield West Annexure A.

For Enfield West possession boundaries refer to Enfield West Annexure D.

### **3.6 ARTC and RailCorp Signals, civil and electrical coordination**

Relevant staff conducting work in the Shared Corridor that may impact on the other network must communicate their respective requirements prior to commencement of any work in accordance with Shared Corridor protocols.

Staff including operational and maintenance staff must continue reporting to the relevant local manager(s) and then via relevant Network Control Officers to the adjacent network if required.

#### 4. Contact Details – Shared Corridor (Sefton to Macarthur)

<b>ARTC</b>	<b>Responsibility</b>	<b>Number</b>
Sydney 2 Network Controller	SSFL Network Control	02 6924 9803
Network Control Centre South	Train Transit Manager	02 6924 9809
Infrastructure Team Manager	Infrastructure & maintenance and point of contact for maintenance access	02 4868 0632 0419 466 143
Safety Interface Officer	Management of this agreement	02 49419660 0429 709636
North /South Operations Manager	Management of Operations	02 4979 7091 0408 644413
Sydney Operations Manager	North/South Operations Project Interface	02 8259 0735
Signal representative	Arrange call-out for any signal issue eg. failure/certification.	0409 601625
ARTC Communications faults	Management of ARTC communications faults	1300 785 747
Property Manager MFN	Management of Property	02 8259 0708
<b>RailCorp</b>		
Rail Management Centre Sydney Shift Manager	Train Control shift Manager	02 9379 1743
Goods Train Controller (RMC)	Controls rail movements and maintenance access	02 9379 4733
Electrical Operations Centre (EOC)	Manages Overhead Wire and High Voltage Power Supply	02 9379 4911
RailCorp Communications faults	Management of RailCorp communications faults	02 9379 4000
RailCorp Security	Controls security of the RailCorp Corridor	02 9379 4444
Operations Control Outer Board	Controls rail movements and maintenance access to RailCorp local passenger network	02 9379 1701
Sefton Park Panel	Controls local movements and maintenance operations	02 9563 7973
East Hills Panel	Controls local movements and maintenance operations	02 9563 7605
Campbelltown Signaller	Controls local movements and maintenance operations	02 46290828
Area Signal Box Manager South	Operations	02 9379 1057
Assistant area Signal Box Manager South	Operations	02 9563 7139

Infrastructure Operations Centre	Infrastructure & Engineering and point of contact for maintenance access	02 9379 5555
Manager Safety Interfaces	Management of this agreement	02 8922 0986
Sefton Station	RailCorp Station operations	02 9379 7702
Chester Hill Station	RailCorp Station operations	02 9379 7703
Leightonfield Station	RailCorp Station operations	02 9726 2131
Villawood Station	RailCorp Station operations	02 9765 1268
Carramar Station	RailCorp Station operations	02 9765 1168
Cabramatta Station	RailCorp Station operations	02 9765 1644
Warwick Farm Station	RailCorp Station operations	02 9602 8060
Liverpool Station	RailCorp Station operations	02 9765 1115
Casula Station	RailCorp Station operations	02 9765 1655
Glenfield Station	RailCorp Station operations	02 9765 1162
Macquarie Fields Station	RailCorp Station operations	02 9765 1163
Ingleburn Station	RailCorp Station operations	02 4629 0845
Minto Station	RailCorp Station operations	02 9603 2279
Leumeah Station	RailCorp Station operations	02 4625 2362
Campbelltown Station	RailCorp Station operations	02 4625 0666
Macarthur Station	RailCorp Station operations	02 4629 0800

## 5. Graphics

### 5.1 Sefton - Leightonfield (Shared Corridor)

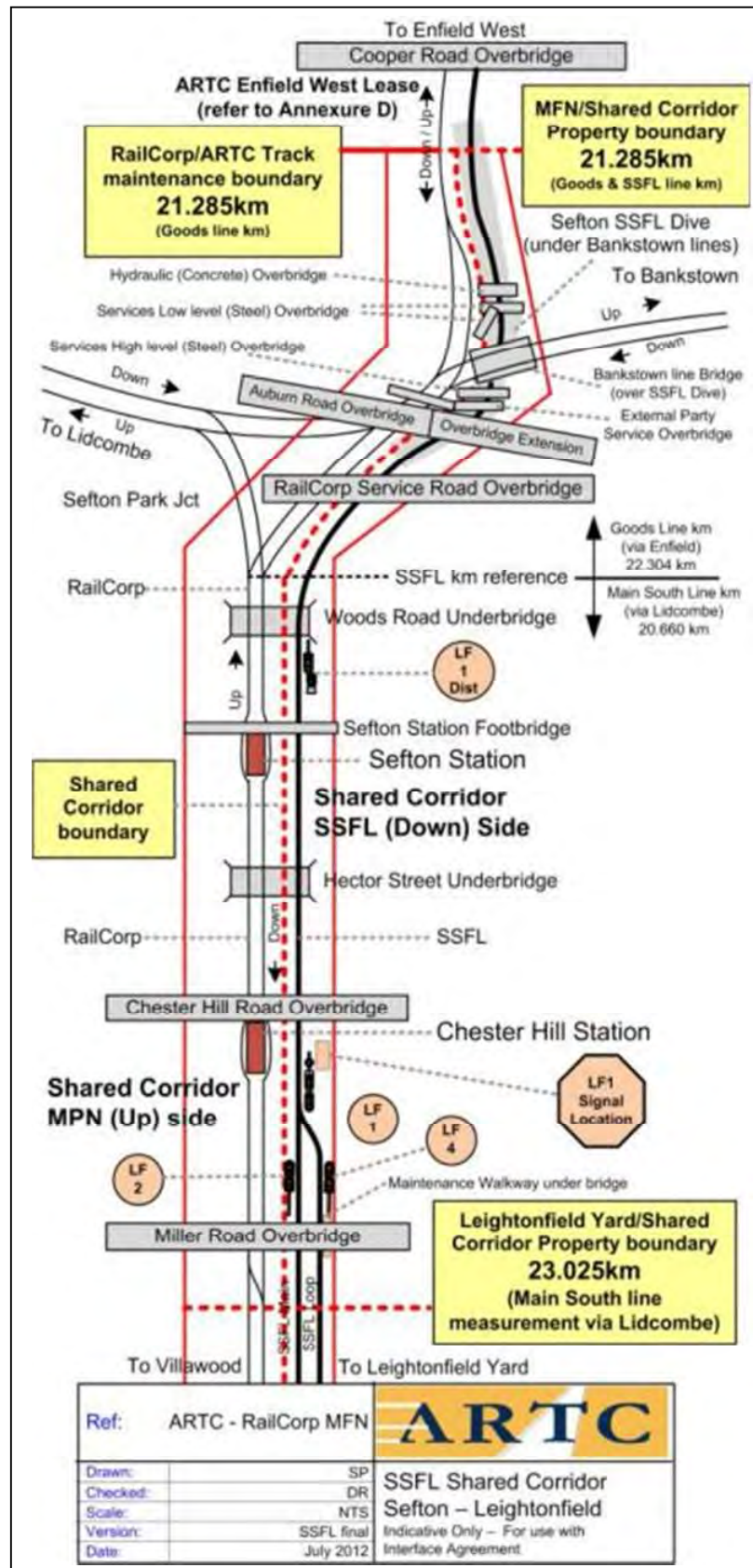




Photo 5.2: Sefton Dive Bridge structures viewed from Sefton (Country end).

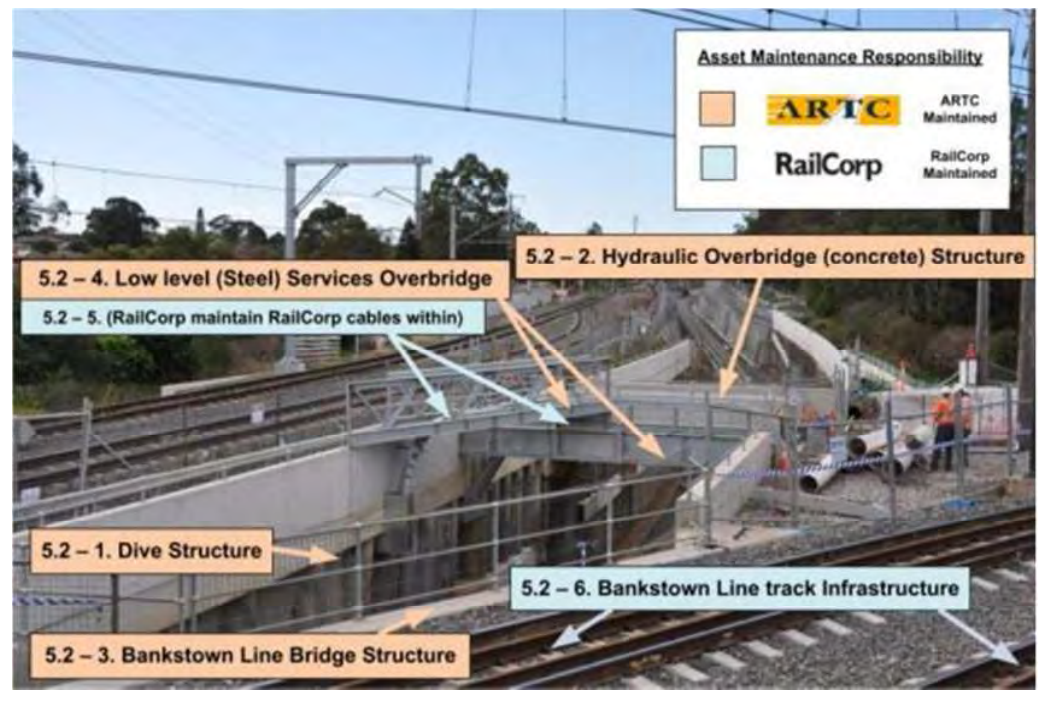


Photo 5.3: Sefton Dive viewed from Chullora (City) End.

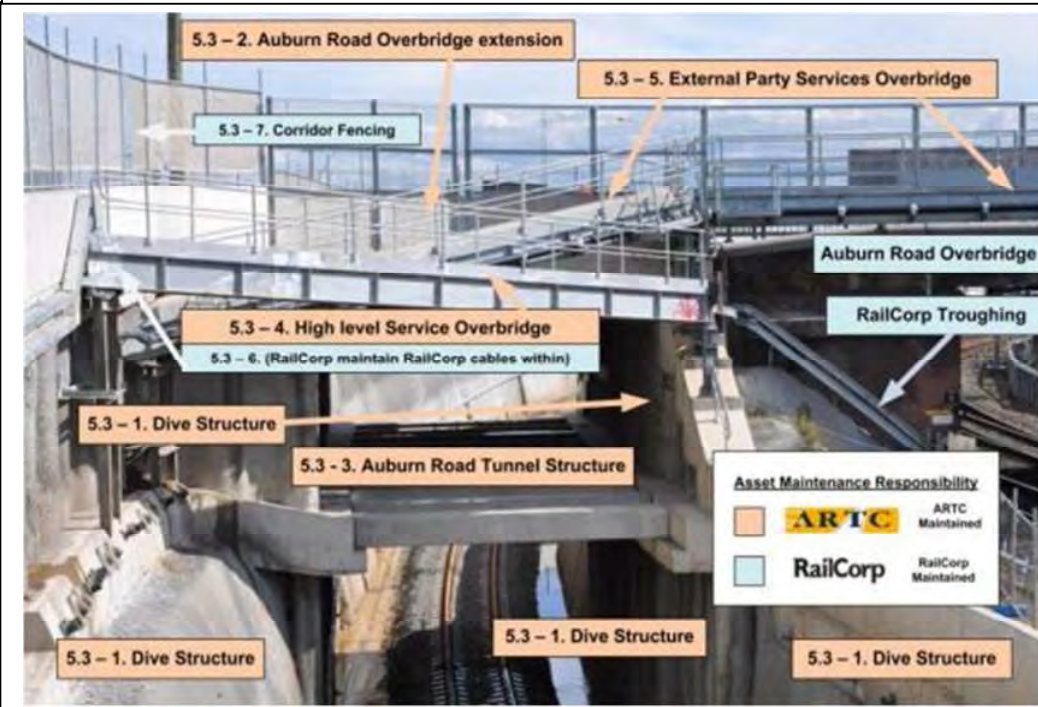


Photo 5.4: View within Sefton Dive looking towards Chullora (City end).

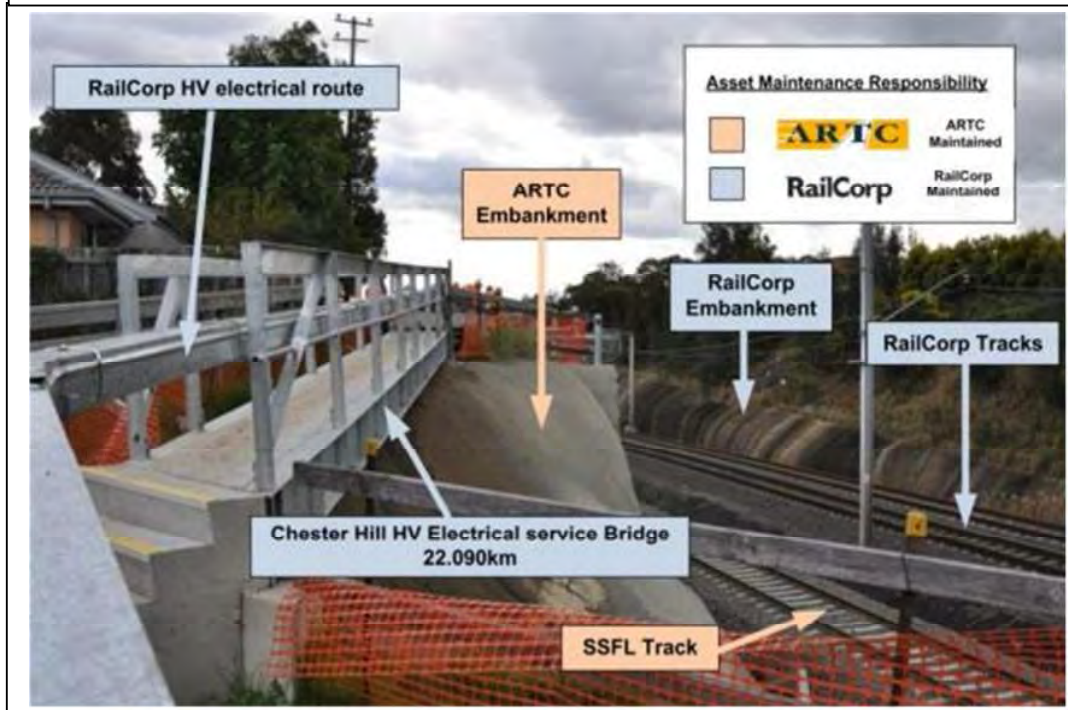


Photo 5.5: View of RailCorp Service Overbridge looking towards Sefton Dive, (Country end).





**Photo 5.6: View of RailCorp Chester Hill HV Electrical Service Bridge at 22.090km SSFL (Down) side looking towards Leightonfield.**



**Photo 5.7: View of RailCorp Miller Road Overbridge Leightonfield at 22.880km SSFL (Down) side looking towards Leightonfield.**



**Photo 5.8: View of Hector St underbridge crash barrier SSFL (Down) side looking towards Leightonfield.**

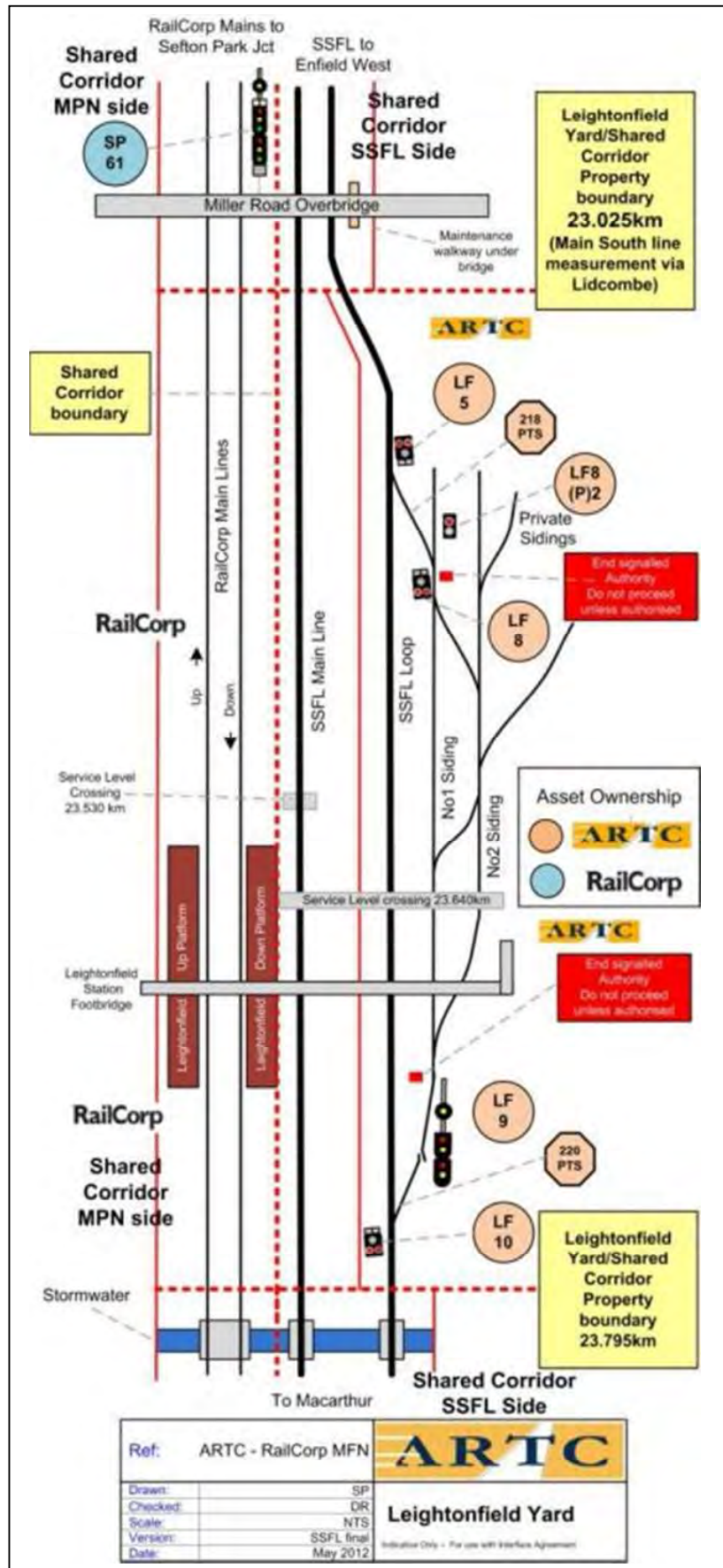


**Photo 5.9: Leightonfield Yard Lease - Shared Corridor boundary, Sydney end, Down direction.**

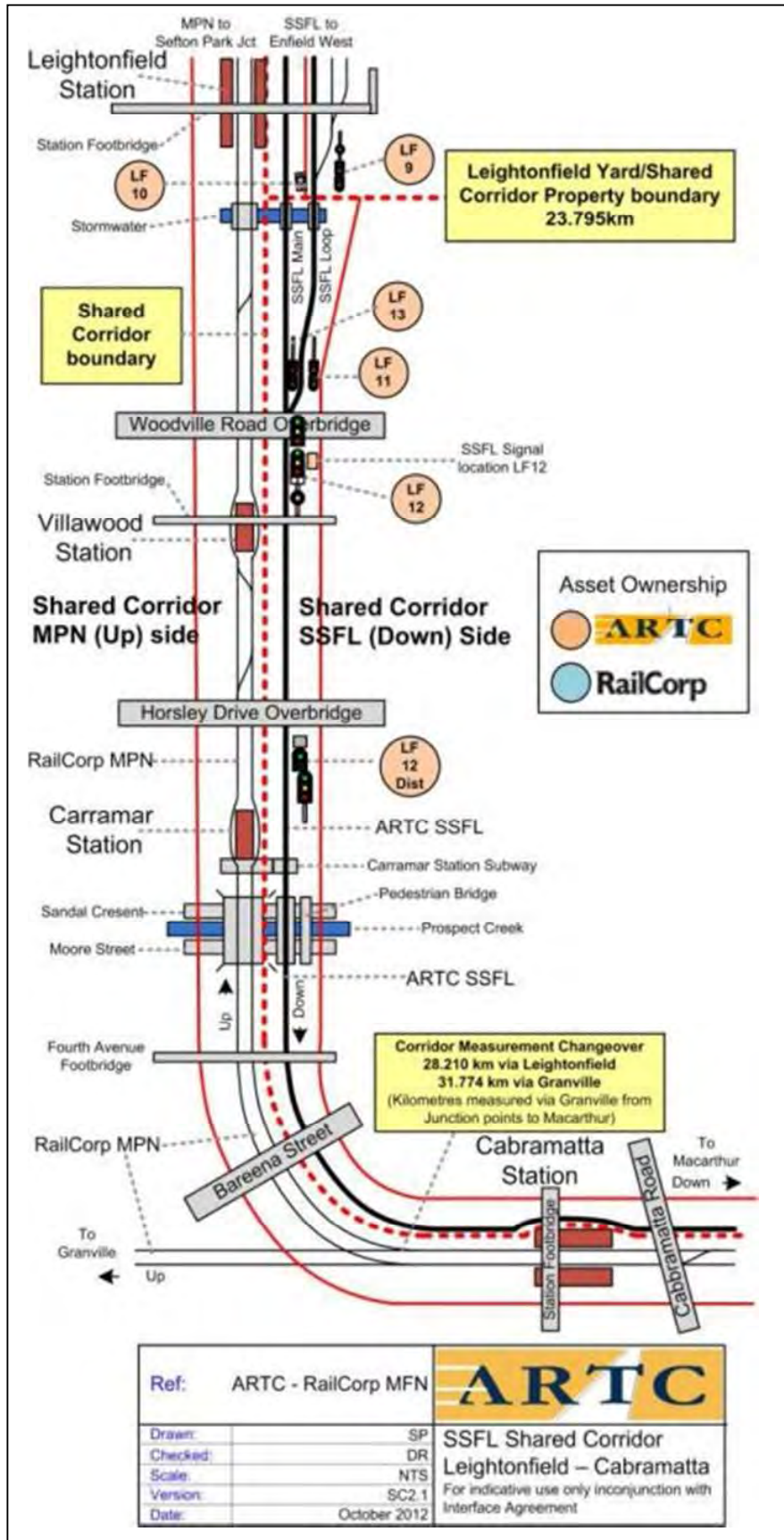




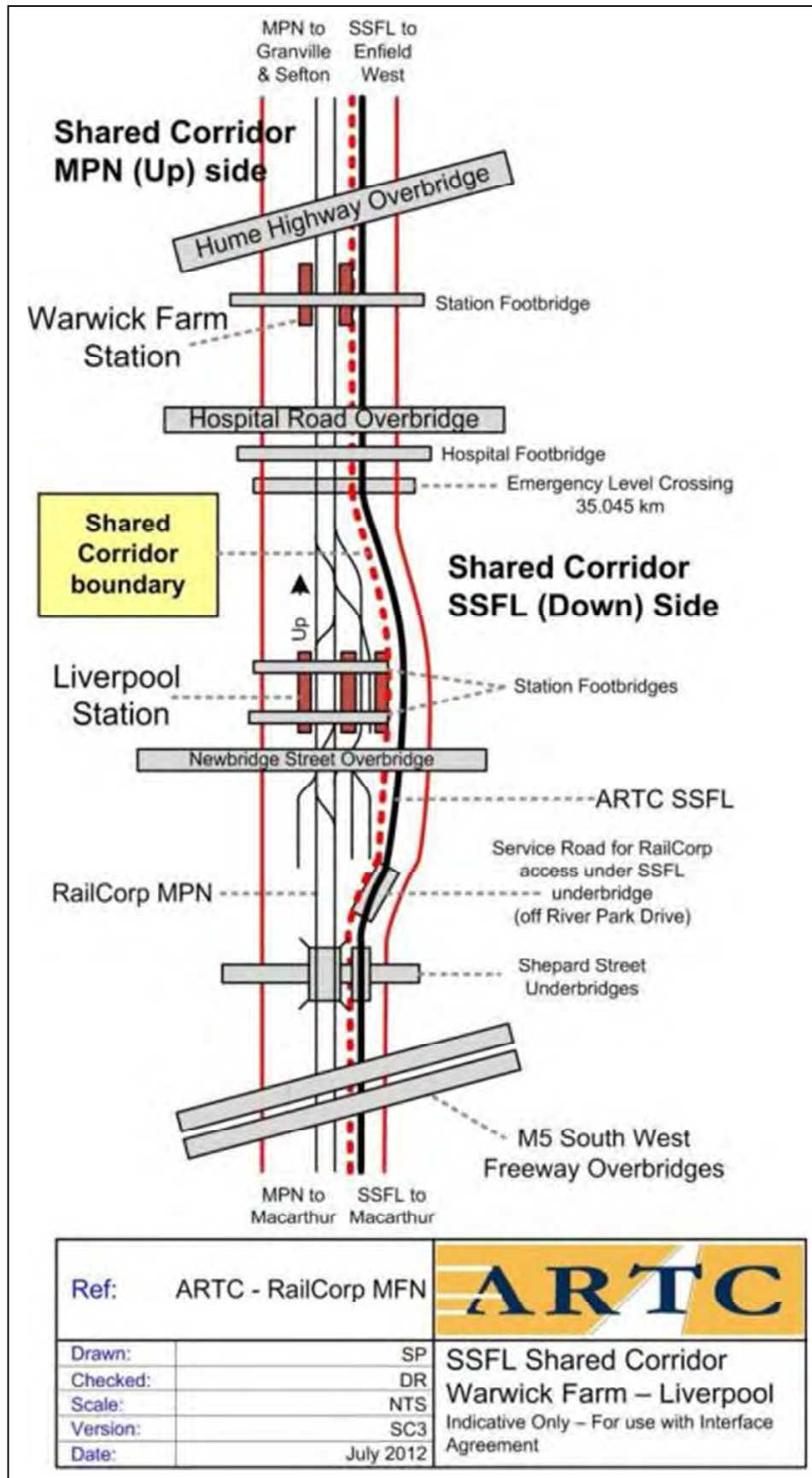
## 5.10 Leightonfield Yard



## 5.11 Leightonfield - Cabramatta (Shared Corridor)

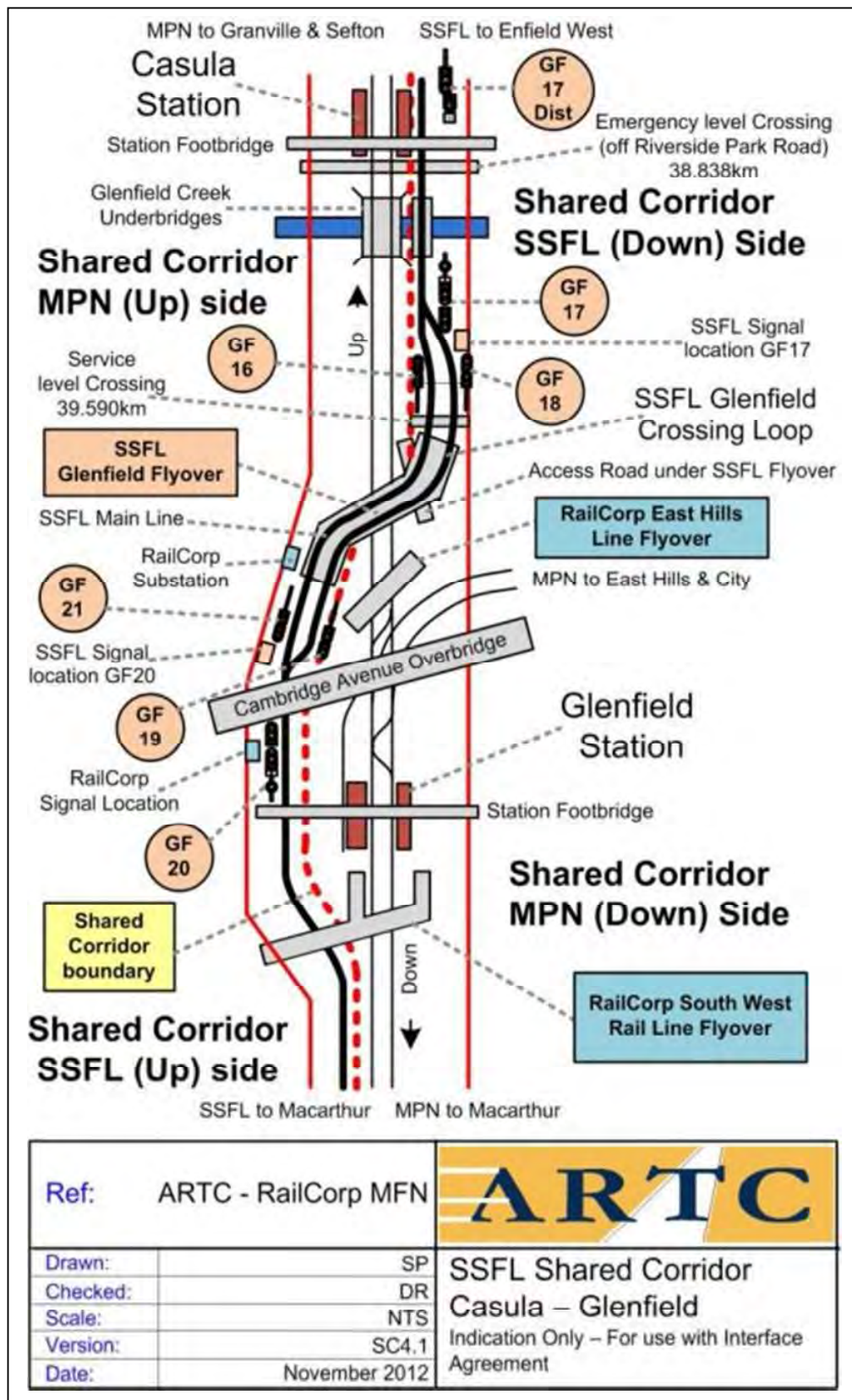


## 5.12 Warwick Farm - Liverpool (Shared Corridor)





### 5.13 Casula - Glenfield (Shared Corridor)



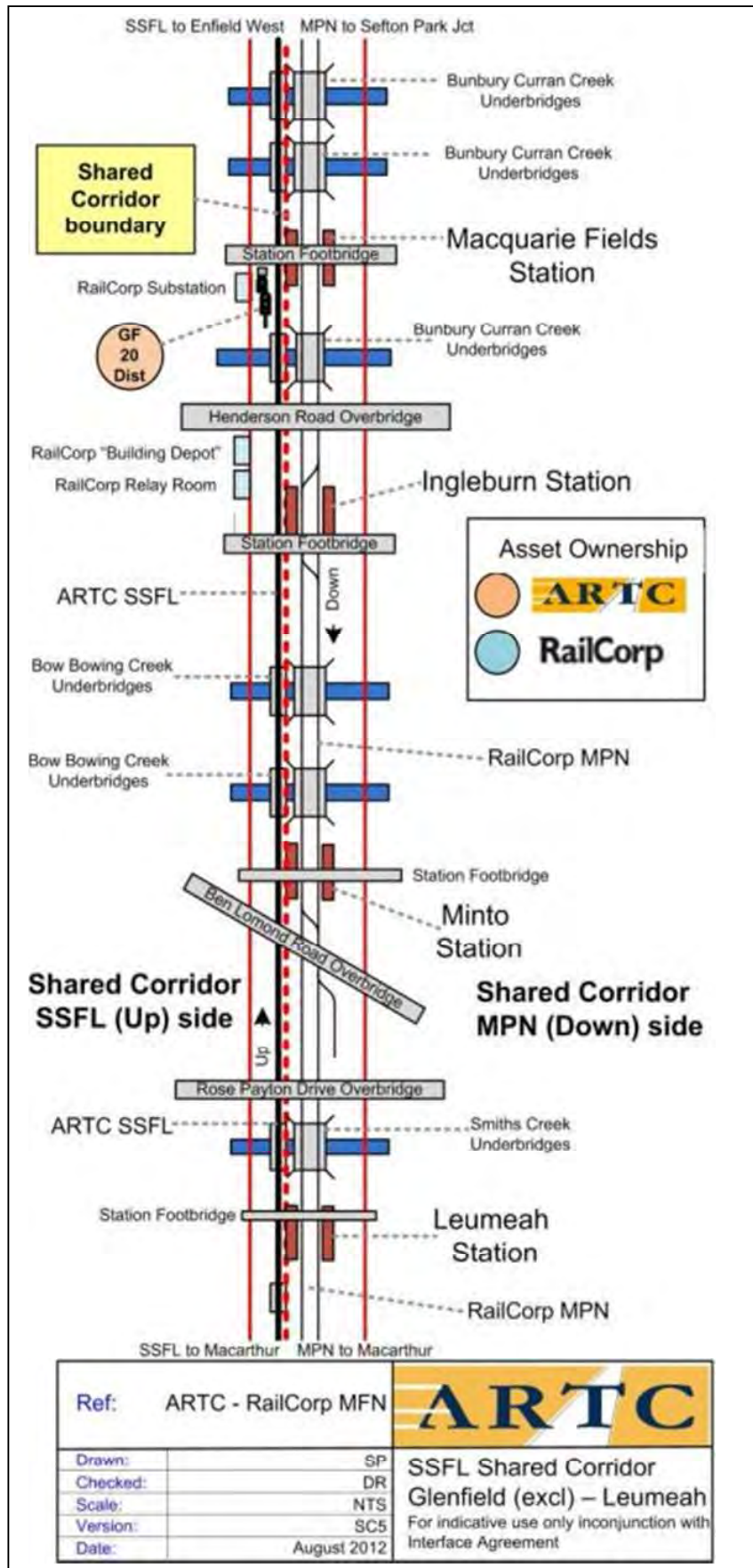
**Photo 5.14 Glenfield Flyover RailCorp North portal, Up side.**



**Photo 5.15 Glenfield Flyover OHW brackets, North Portal, Up side.**



## 5.16 Glenfield (excl) - Leumeah (Shared Corridor)

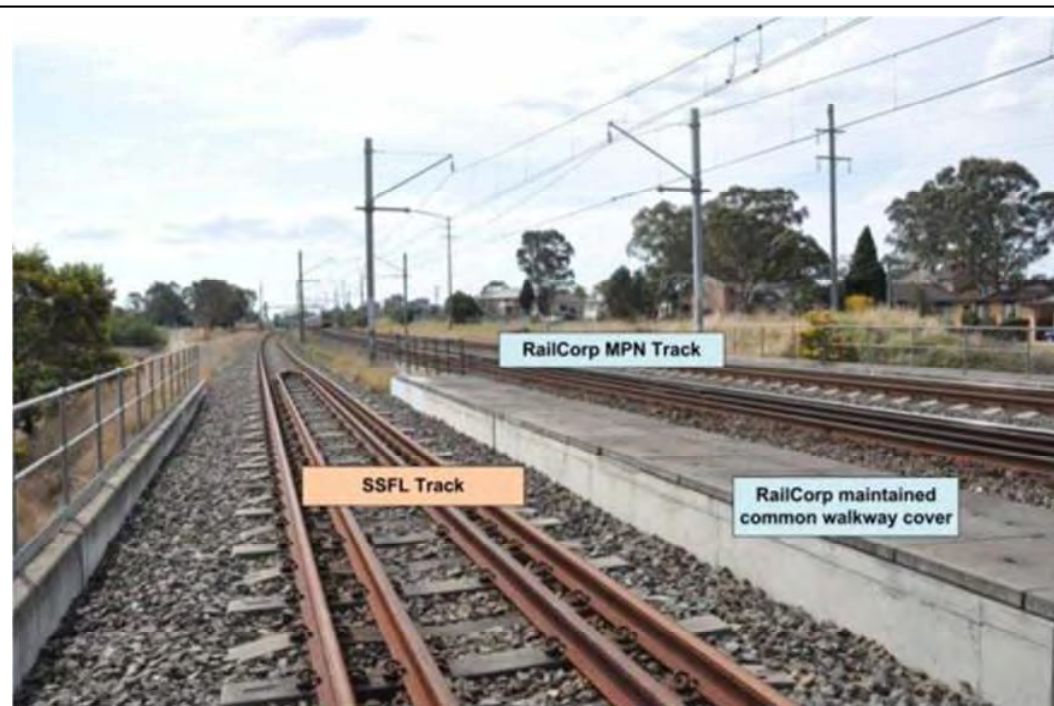




**Photo 5.17 Bunbury Curran Creek underbridge 43.508 km Glenfield – Ingleburn. Down direction, Up side. Common walkway cover and ballast screen visible between underbridges.**



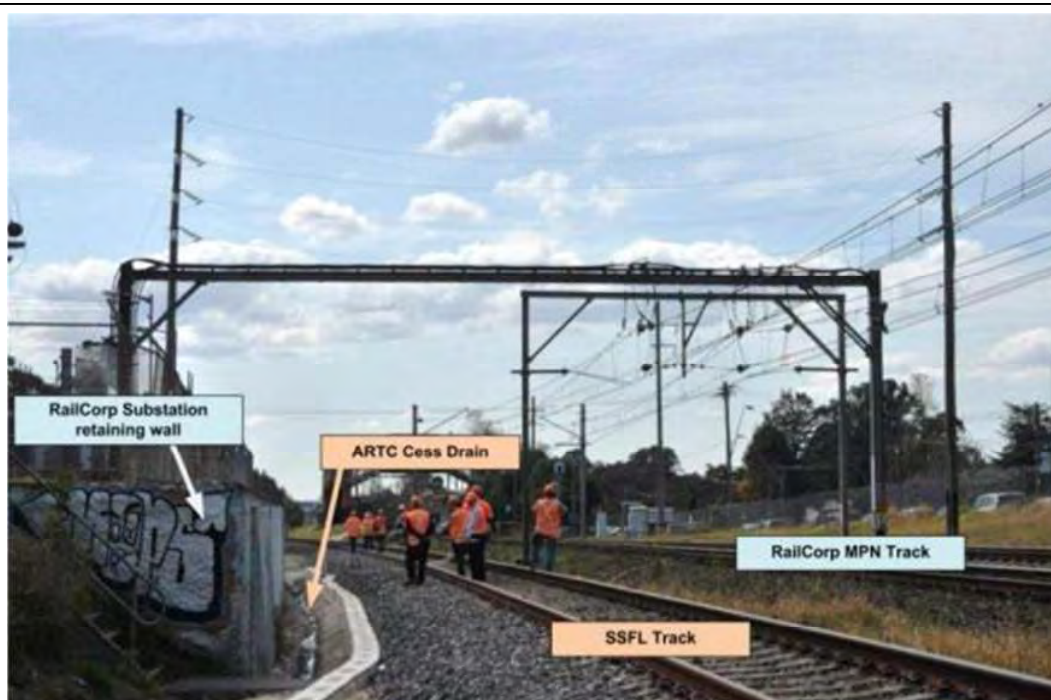
**Photo 5.18 Bunbury Curran Creek underbridge 44.263 km Glenfield – Ingleburn. Up direction, Up side. Common walkway cover visible between underbridges.**



**Photo 5.19 Macquarie Fields Station, Up side, Up direction.**  
Capped piling and backfill included in RailCorp station maintenance responsibility.



**Photo 5.20 Macquarie Fields Substation, Up side, Up direction.**  
Cess drainage ARTC responsibility along foot of RailCorp maintained Substation retaining wall.

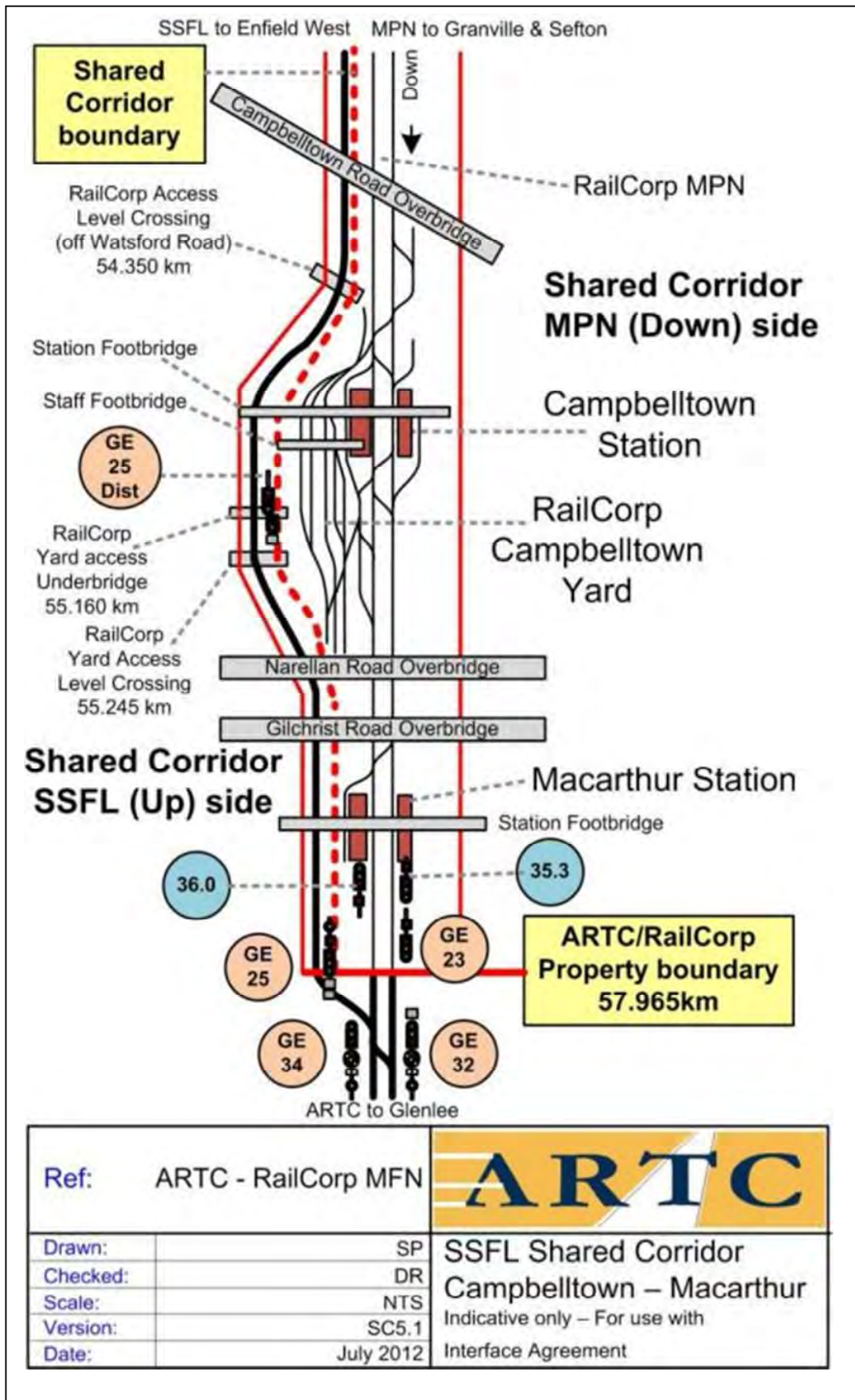




**Photo 5.21 Ingleburn Station, Up side, Down direction.  
Station backfill and landscaping RailCorp responsibility.**



## 5.22 Campbelltown - Macarthur (Shared Corridor & MPN/DIRN)



## 6. Shared Corridor Protocols for the ARTC Freight Network - (Independent Control)

### 6.1 Introduction

The Shared Corridor Protocols included in this document are based on risk workshops and assessments undertaken for the Australian Rail Track Corporation (ARTC) Southern Sydney Freight Line Project (SSFL) and the Sydney Metropolitan Freight Network (MFN). The document includes protocols forming part of mitigation measures associated with operations of two railways in the same Shared rail Corridor(s).

The Shared Corridor Protocols apply where ARTC and RailCorp are operating in a Shared Rail Corridor in this case specifically they take affect for the Shared Corridor area between Sefton Park Junction and Macarthur whereby the RailCorp passenger lines run parallel to the ARTC SSFL area.

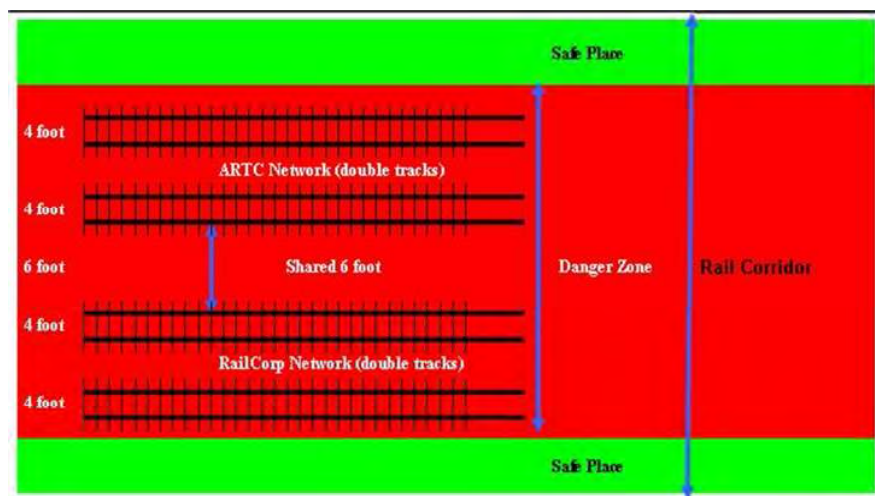
These protocols are based on RailCorp performing the Network Control function on its own Network and ARTC performing Network Control on the ARTC Network. Train Control and Signalling will be performed through the ARTC Junee Network Control Centre for the respective ARTC areas of the SSFL network and through the RailCorp RMC for Train Control and the respective RailCorp Signaller for the RailCorp Network.

The Shared Corridor Protocols apply where ARTC and RailCorp are operating in a Shared Rail Corridor and are in addition to the interfaces and procedures defined in Annexure J to the SSFL Shared Corridor Interface Agreement between ARTC and RailCorp.

The following provides additions to the existing Safety interface Agreement between ARTC and RailCorp covering Shared Corridor Protocols.

### 6.2 Definitions

Rail Corridor	The area from boundary fence to boundary fence or if there is no boundary fence, 15 m from the outer rail.
Shared Corridor	Rail Corridor where two or more independent railways are operating.
Shared 6 Foot	6 Foot area between the near rails of adjacent railways.
Shared Corridor Protocols	Set of agreed requirements applicable when two railways are operating in parallel on adjacent lines in a Shared Corridor and with Shared 6 foot areas between the two railways.
Rail Commander	RailCorp nominated coordinator for all incidents in the rail Corridor.



For the safety Interface Agreement, the following operational interfaces have been addressed:

**Operational interface between ARTC and RailCorp Network Control Centres;**

**Operational interface at entry points; and**

**Operational interface associated with the Shared Corridor.**

### **6.3 Operational Interface between ARTC and RailCorp Network Control Centres**

The communication between Operational staff on the adjacent railways in a Shared Corridor is always between relevant Network Control Officers. Staff, including operational and maintenance staff must report to the respective Network Control Officer, then to their respective relevant local manager.

ARTC is providing visibility of train movements to relevant RailCorp's Control Centres in the form of appropriate link connections. This includes Phoenix mimic link connections to RailCorp's Control Centres at Sydenham, Enfield, Campbelltown and RailCorp's RMC.

Where one Network Control Officer becomes aware of a train failure, derailment and/or any other incident which may affect the safety of movements on one or both lines of the adjacent railway immediate action must be taken by that Network Control Officer to advise the Network Control Officer for the other line. Action is then to be taken to advise any train or track movements in or approaching the section and if necessary stop the movements until it is known that it is safe for the passage of the movement.

When advice has been received that the line is again safe for normal traffic, the Network Control Officer receiving this advice shall ensure that the other railway's Network Control Officer is immediately informed.

### **6.4 Operational Interface at Entry Points**

#### **6.4.1 Train Control and Signalling**

The overall control of the interface points will be managed in accordance with the Safety Interface Agreement.

Each party has to report to the other party through the relevant Network Control Officers on relevant deviations from planned rail traffic for any services that operate over any ARTC and RailCorp interface point. CountryNet / ICE Train radio is the primary communications system on the ARTC SSFL Network to align with ARTC's safety management systems and it's rail Safety accreditation requirements. MetroNet and CountryNet/ICE are the primary communication systems on the RailCorp Network.

NB: See communication system descriptions in section 3 and Appendix A & B that outline radio call processes.

#### **6.4.2 Track Work at Interface Points**

Possessions affecting interface locations at entry points require permission from the adjacent railway. This is as per the current possession planning regime between RailCorp and ARTC and in conjunction with the Interface Agreement requirements.

Any works at the interface locations including inspection activities require advice from the adjacent railway in accordance with the Safety Interface Agreement.

## **6.5 Operational Interface Associated with the Shared Corridor Area**

### **6.5.1 Possession planning Associated with the Shared Corridor Area**

Planned Possessions must be approved through the RailCorp/ARTC possession planning forum.

### **6.5.2 Emergency and Incident Management**

All Rail Safety Workers must report any incident or infrastructure issues to the Network's relevant Network Control Officer. The Network Control Officer receiving the initial report must then advise the Network Control Officer from the adjacent railway of any incident that has the potential to affect the operations on the adjacent railway. Direct contact between Network Controllers can be initiated via VCS telephone hotlines that are provided.

ARTC and RailCorp Network Control Officers must take immediate action including advising personnel on adjacent lines of any approaching trains which may impact on an incident.

ARTC and RailCorp will confer and agree on services to be stopped before Emergency Services can enter the Danger Zone in the Shared Corridor. If Emergency Services are required in the Shared Corridor, the Shift Manager from RailCorp RMC must request the closure of all appropriate rail lines in the Danger Zone including ARTC lines through coordination with the ARTC Network Control Officer (if access is required to the ARTC Danger Zone).

RailCorp's Rail Management Centre has the lead role in managing Emergency service access into the Shared Corridor Danger Zone.

RailCorp will take the Rail Commander role in the Shared Corridor for any major incident on the Corridor unless otherwise agreed between the RailCorp RMC Shift Manager and the ARTC North South Operations Manager. The Rail Commander role will include the co-ordination and control of the site of a major incident. The Incident will be managed in accordance with the RailCorp Incident Management Framework. In the case whereby an agreement is made that ARTC are responsible for Incident Management on its network, not involving the RailCorp network, the ARTC Rail Commander will manage the incident in accordance with the ARTC Incident Management Plan.

Any evacuation that will require the establishment of an escape route across the tracks of the adjacent railway must only occur after the Network Control Officer initiating the evacuation has requested and received confirmation from adjacent railway that train operations on the adjacent railway have ceased.

Regulatory Requirements such as Safe Working Breaches and D&A testing will remain as the responsibility of the individual parties i.e. RailCorp personnel managed by RailCorp management, ARTC and third party rail operators in accordance with their respective management. In the case of a contractor breaching safe working it will be the responsibility of the network owner and/or its contractors management to ensure appropriate action with the personnel involved.

Both RailCorp and ARTC must advise the other party (RailCorp or ARTC) if their respective Control Centre must be evacuated.

### **6.5.3 Network Rules and Procedures**

ARTC Rules and Procedures are applicable on the ARTC Network.

RailCorp Rules and Procedures are applicable on the RailCorp Network.

ARTC and RailCorp Network rules have been aligned and documented in ARTC & RailCorp SAFE notices for the Shared Corridor areas. This will ensure consistency in the Network Rules where either ARTC or RailCorp works in the Shared Corridor are affecting the other party's network.

Above rail operations on the separate networks will occur in accordance with the respective railway's Network Rules and Procedures.

All Rail Safety Workers must advise the appropriate Network Control Officer of breaches of Network Rules and Procedures.

### **6.5.4 Track Work Management and Planning (including Emergency works)**

Where any work on track activity (including Lookout Working on the RailCorp Main South or ARTC SSFL line) requires authorisation from the adjacent network owner then the relevant authorisation must be sought from the adjacent network owner's Network Control Officer before the work is undertaken.

Effective communication must be established with the Network controllers of both networks to ensure the required protection arrangements are understood. A telephone conference call should be initiated to support consistent understanding by all parties.

### **6.5.5 Trespassers**

RailCorp and ARTC are both responsible for collecting relevant information and implementation of appropriate level of mitigation measures. This includes RailCorp reporting on trespassers activity to the ARTC NCCS at Junee and the ARTC Network Control Officer reporting to the RailCorp Network Control Officer as appropriate. RailCorp must contact the police as required.

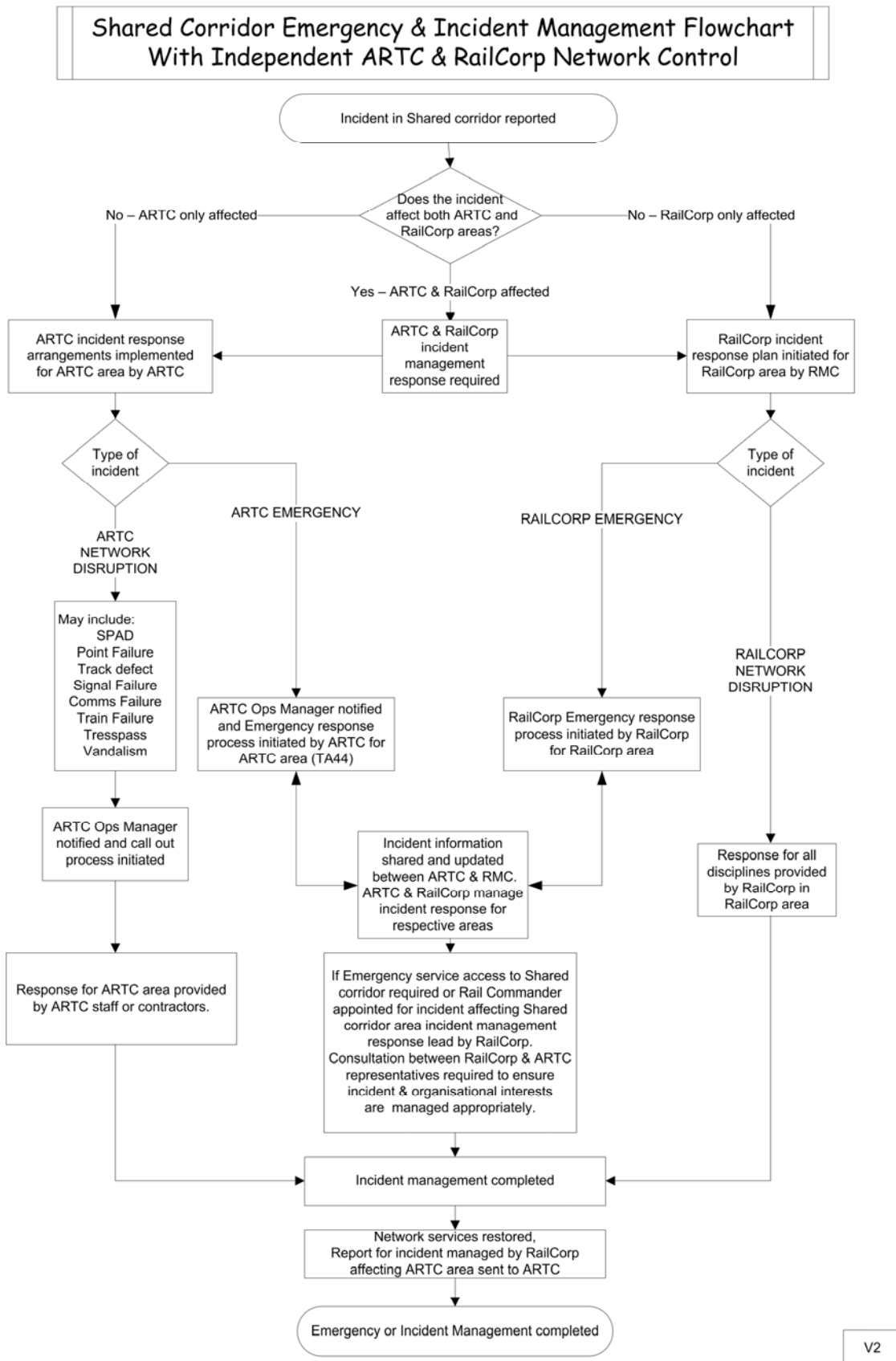
### **6.5.6 Vandalism**

ARTC and RailCorp are to deal with vandalism of the respective network assets including mitigation and resolution matters. Where appropriate both ARTC and RailCorp Network Control Officers must report any instances to the adjacent railway. RailCorp will advise the police as required.

Both ARTC and RailCorp maintenance workers must advise the respective Network Control Officer of any incident involving Vandalism on the Shared Corridor area when it becomes known.



## 6.5.7 Shared Corridor Emergency and Incident Flowchart



## **6.6 COMMUNICATIONS SYSTEM OPERATION AND CALL MANAGEMENT**

### **6.6.1 Communications Systems**

RailCorp and ARTC have developed the following principles for the management of communications within the Shared Corridor:

#### **6.6.1.1 VCS & Telephone Hotlines**

VCS & Telephone Hotlines are configured to enable ARTC Network Controllers & RailCorp Signallers and Train Controllers to contact each other directly via the VCS system and Telephones with Priority and Emergency call Priority.

VCS and Telephone hotlines are utilised to contact adjacent Controllers for both routine operational communications and notification of Emergency situations.

The Controllers VCS can be utilised to conference other parties into telephone and MetroNet/CountryNet/ICE radio calls received by Signallers and Controllers.

#### **6.6.1.2 MetroNet Train Radio**

MetroNet Train Radio System operation in the Shared Corridor area provides routine and Emergency calls between RailCorp Drivers and RailCorp Signallers and Train Controllers. There is no MetroNet operation on ARTC lines

#### **6.6.1.3 WB radio**

WB Train Radio operation in the Shared Corridor area provides routine and Emergency transmissions between Drivers, RailCorp Signallers and Train Controllers.

ARTC Junee Controllers do not utilise WB radio in the Shared Corridor area.

#### **6.6.1.4 CountryNet/ICE Train Radio**

All CountryNet/ICE Train Radio calls from trains in the Shared Corridor area are routed to the ARTC Junee Controller.

RailCorp Train Controllers are able to initiate CountryNet/ ICE Train radio calls to equipped trains in the Shared Corridor area.

Additional functionality has been introduced via the CountryNet/ICE radio XLG system that generates a group call to the respective RailCorp Signaller and RailCorp Train Controller VCS when an Emergency call is answered or initiated by the ARTC Controller in the Shared Corridor area. (see 6.6.4 Emergency call Management below)

### **6.6.2 Communications system configuration Management**

Any changes to the communications systems or processes supporting the management of routine and Emergency calls in the Shared Corridor require endorsement from the adjoining network owner.

ARTC & RailCorp XLG & NTCS configurations are managed by the NTCS configuration management process and detailed in the baseline configuration document.

### 6.6.3 Routine Call Management

Where appropriate, RailCorp and ARTC have the ability to transfer or conference in the Signaller, Network Controller or Train Controller of the adjoining network via the VCS for train radio calls (except WB).

Telephony calls can also be transferred via the VCS to conference in the Signaller, Network Controller or Train Controller of the adjoining network.

Routine Call management principles are set out in the table below and individual Shared Corridor CountryNet scenarios are detailed in Appendix A.

**The table below lists Controller/Signaller received routine call operation scenarios for the Shared Corridor track area:**

Track	Communications System		ROUTINE CALL (default recipient)		SECONDARY CONTACT (Called via VCS or conferenced in)
ARTC	ICE/CountryNet	→	Junee Network Controller	→	RMC or relevant Signaller
	WB	→	RailCorp Signaller		cannot be redirected, not used by ARTC
	Mobile phone	→	Junee, RMC or Signaller	→	Junee, RMC or Signaller
RailCorp	MetroNet	→	RMC or Signaller	→	RMC or Signaller, and Junee
	ICE/CountryNet	→	Junee Network Controller	→	RMC or relevant Signaller
	WB	→	RailCorp Signaller or Controller		cannot be redirected
	Mobile phone	→	Junee/Signaller/RMC	→	Junee/Signaller/RMC

### 6.6.4 Emergency call Management

Where appropriate, RailCorp and ARTC have the ability to transfer to or conference in the Signaller, Network Controller or Train Controller of the adjoining network via the VCS for train radio calls (except WB).

Telephony calls can also be transferred via the VCS to conference in the Signaller, Network Controller or Train Controller of the adjoining network.

Emergency Call management principles are set out in the table below and individual Shared Corridor scenarios are detailed in Appendix B.

Individual Shared Corridor interface track area scenarios are detailed in Appendix C.

**The table below lists Controller/Signaller received Emergency call operation scenarios for the Shared Corridor track area:**

Track	Communications System		EMERGENCY CALL (default recipient)		SECONDARY CONTACT (Called via VCS or conference in)
ARTC	ICE/CountryNet	→	Junee Network Controller	→	RMC and relevant Signaller
	WB	→	Sydenham Signaller		Signaller calls RMC and Junee
	Mobile phone	→	Junee, Signaller or RMC	→	Junee, RMC or Signaller
RailCorp	MetroNet	→	RMC or Signaller	→	RMC or Signaller, and Junee
	ICE/CountryNet	→	Junee Network Controller	→	RMC and relevant Signaller
	WB	→	Sydenham Signaller		Signaller calls RMC and Junee
	Mobile phone	→	Junee/Signaller/RMC	→	Junee/Signaller/RMC

### **6.6.4.1 CountryNet/ICE Train Radio - Emergency Call Operation**

All CountryNet/ICE Radio calls from trains in the Shared Corridor area are routed to the ARTC Junee Controller. These call scenarios are detailed in Appendix A.

Additional functionality has been introduced via the CountryNet/ICE radio XLG system that generates a group call to the respective RailCorp Signaller, Ops Controller and RailCorp Goods Train Controller VCS when an Emergency call is answered or initiated by the ARTC Controller in the Shared Corridor area. All Signaller and Controllers conferenced into the CountryNet/ICE Emergency call have the ability to transmit discussion and receive audio.

The principle train in the CountryNet/ICE Emergency call participates with transmit and receive audio, other adjacent trains conferenced into the call only receive call audio as per the existing process.

The loco initiating an Emergency CountryNet/ICE call also rebroadcasts its Emergency call audio via the integrated on board WB radio if equipped. The Emergency call scenarios are detailed in Appendix B.

CountryNet/ICE Emergency calls initiated on the adjacent RailCorp controlled interface track areas approaching the Shared Corridor area call the RailCorp Goods Train Controller and also generate a group call to the respective RailCorp Signaller, RailCorp Ops Controller and ARTC Network Controller VCS when an Emergency call is answered or initiated by the RailCorp Goods Controller. This call scenario is detailed in Appendix C.

CountryNet/ICE Emergency calls initiated on the adjacent ARTC controlled interface track area approaching the Shared Corridor area call the ARTC Network Controller and also generate a group call to the respective RailCorp Signaller and RailCorp Train Controllers VCS when an Emergency call is answered or initiated by the ARTC Network Controller. This call scenario is detailed in Appendix C.

When Emergency calls are received on a Controller VCS (Junee or RMC) an Emergency alert alarm is also displayed on VCS consoles configured with Supervisor status. VCS supervisors can observe Emergency calls via the Train Radio page (radio calls only) if desired.

Emergency calls can be answered by Supervisors or other Controllers if required via the Train Radio page.

In the event of additional CountryNet/ICE Emergency calls being initiated in a Controllers area whilst an Emergency call is already in progress the original call will remain connected (as per existing practise) and the receiving Controller must manage the connection of calls as required.

If multiple Emergency CountryNet calls are initiated within the SC9 area only the first answered Emergency call will conference in adjacent CountryNet locos. Subsequent Emergency calls will only connect the initiating loco to the Controller, conference in adjacent ICE locos and broadcast the Emergency call audio via the WB (integrated) radio on the originating loco when the call is answered.

## **Appendix A: CountryNet/ICE Shared Corridor Routine Call scenarios**

### **A.1 SSFL/MFN//MPN Driver initiated routine CountryNet/ICE call**

#### **ARTC Junee Controller**

- CountryNet/ICE routine calls are received and answered by the ARTC Junee Controller.
- If the CountryNet call received requires RailCorp Signaller or Controller participation the call can be conferenced with the relevant RailCorp Controller or Signaller via a VCS telephone hotline.
- The ARTC Junee Controller can also contact the RailCorp Train Controller and/or Signaller responsible for the area separately via a VCS telephone hotline to initiate other communications.

#### **RailCorp Signaller and Controllers**

- If participation is required a call will be received via the VCS telephone hotline from the ARTC Junee Controller.
- The RailCorp Controller can initiate a routine CountryNet/ICE call to the train directly via the VCS radio page if required.

### **A.2 SSFL/MFN/MPN Controller initiated routine CountryNet/ICE call**

#### **ARTC Junee Controller**

- A CountryNet/ICE call can be initiated by the ARTC Controller to a train via the VCS radio page.

#### **RailCorp Controllers**

- A CountryNet/ICE call can be initiated by a RailCorp Controller to a train via the VCS radio page.

## **Appendix B: Shared Corridor Communications Emergency Call Scenarios**

### **B.1 ARTC SSFL/MFN track Driver initiated CountryNet/ICE Emergency call - adjacent to RailCorp MPN track**

#### **ARTC Junee Controller**

- An Emergency CountryNet/ICE call is received and answered by the ARTC Junee Controller.
- When the CountryNet/ICE call is answered other CountryNet/ICE equipped trains in area will be conferenced to receive the audio of the call.
- The Junee XLG system will automatically call the nominated RailCorp Controller and Signallers via the VCS telephone hotlines and include them in the CountryNet/ICE Emergency call.
- The ARTC Junee Controller can also contact other relevant parties via VCS telephone hotlines to initiate other Emergency responses.

#### **RailCorp Signaller and Controllers**

- Nominated RailCorp Signallers and Controllers receive Emergency notification via VCS telephone hotlines and are included in CountryNet/ICE Emergency call.
- The Drivers audio from CountryNet/ICE unit initiating the Emergency call is rebroadcast via on the board (integrated) WB radio and is received by other non MetroNet trains, RailCorp Signallers and Controllers WB radios in the area.
- The RailCorp Signaller responsible for the area initiates MetroNet calls to MetroNet equipped trains in area including:
  - Broadcast call – audio RX only on MetroNet equipped trains
  - Group call to selected MetroNet trains – two-way audio,
  - An “All Stop” data message sent to MetroNet trains will be displayed on the trains radio control head with an audio alert tone.
- The RailCorp Signaller can broadcast an Emergency message to non MetroNet trains in area via WB radio using Emergency open channel radio communication protocols.
- ARTC & RailCorp Controllers/Signallers coordinate via VCS telephone hotlines.

### **B.2 RailCorp MPN track Driver initiated CountryNet/ICE Emergency call - adjacent to ARTC SSFL/MFN track**

#### **ARTC Junee Controller**

- An Emergency CountryNet/ICE call is received and answered by the ARTC Junee Controller
- When the CountryNet/ICE call is answered other CountryNet/ICE equipped trains in area will be conferenced to receive the audio of the call.
- The Junee XLG system will automatically call the nominated RailCorp Controller and Signallers via the VCS telephone hotlines and include them in the CountryNet/ICE Emergency call.
- The ARTC Junee Controller can also contact other relevant parties via VCS and telephone hotlines to initiate other Emergency responses.

#### **RailCorp Signaller and Controllers**

- Nominated RailCorp Signallers or Controllers receive Emergency notification via VCS telephone hotlines and are included in CountryNet/ICE Emergency call.
- The Drivers audio from CountryNet/ICE unit initiating the Emergency call is rebroadcast via on the board (integrated) WB radio and is received by other non MetroNet trains, RailCorp Signallers and Controllers WB radios in the area.
- The RailCorp Signaller responsible for the area initiates MetroNet calls to MetroNet equipped trains in area including:
  - Broadcast call – audio RX only on MetroNet equipped trains
  - Group call to selected MetroNet trains – two-way audio,
  - An “All Stop” data message sent to MetroNet trains will be displayed on the trains radio control head with an audio alert tone.
- The RailCorp Signaller can broadcast an Emergency message to non MetroNet trains in the area via WB radio using Emergency open channel radio communication protocols.
- ARTC & RailCorp Controllers/Signallers coordinate via VCS telephone hotlines.



### **B.3 RailCorp MPN Track Driver initiated MetroNet Emergency call - adjacent to ARTC SSFL/MFN track**

#### **RailCorp Signaller and Controllers**

- An Emergency MetroNet call is forwarded to the RailCorp Signaller responsible for the area on the Signaller's MetroNet console. If unanswered after 30 seconds the call is escalated to the allocated Metropolitan Ops Train Controller for the area and answered on the VCS.
- The RailCorp Signaller/Controller responsible for the area initiates MetroNet calls to MetroNet equipped trains in the area including:
  - Broadcast call – audio RX only on MetroNet equipped trains
  - Group call to selected MetroNet trains – two-way audio,
  - An “All Stop” data message sent to MetroNet trains will be displayed on the trains radio control head with an audio alert tone.
- The RailCorp Signaller/ Controller contacts ARTC & RailCorp Controllers/Signallers via VCS telephone hotlines to initiate further response.
- The RailCorp Signaller/Controller can broadcast an Emergency message to non MetroNet trains in the area via WB radio using Emergency open channel radio communication protocols.

#### **ARTC Junee Controller**

- The ARTC Junee Controller receives Emergency notification from the RailCorp Signaller or Controller via VCS telephone hotline.
- The ARTC Junee Controller initiates a CountryNet/ICE Priority call to ARTC track trains to advise of the Emergency.
- The ARTC Junee Controller contacts other relevant parties via VCS telephone hotlines to initiate other Emergency responses.

### **B.4 MPN/SSFL/MFN Track Driver initiated WB Emergency call**

#### **RailCorp Signaller and Controllers**

- A WB Radio Emergency call is received by adjacent area WB equipped trains and the RailCorp Signaller or Controller.
- The RailCorp Signaller or Controller responsible for the area initiates a MetroNet call to MetroNet equipped trains in the area:
  - Broadcast call – audio RX only on MetroNet equipped trains
  - Group call to selected MetroNet trains – two-way audio,
  - An “All Stop” data message sent to MetroNet trains will be displayed on the trains radio control head with an audio alert tone.
- The RailCorp Signaller/Controller contacts ARTC & RailCorp Controllers/Signallers via VCS telephone hotlines to initiate further response.
- The RailCorp Signaller/Controller can broadcast an Emergency message to non MetroNet trains in the area via WB radio using Emergency open channel radio communication protocols.

#### **ARTC Junee Controller**

- The ARTC Junee Controller receives Emergency notification from a RailCorp Signaller or Controller via a VCS telephone hotline.
- The ARTC Junee Controller initiates a CountryNet/ICE Priority call to trains to advise of the Emergency.
- The ARTC Junee Controller contacts other relevant parties via VCS telephone hotlines to initiate other Emergency responses.

## **B.5 ARTC SSFL/MFN Track initiated Mobile telephone Emergency call - adjacent to RailCorp MPN track**

### **ARTC Junee Controller**

- An Emergency call using a mobile telephone is received by the ARTC Junee Controller.
- The ARTC Junee Controller answers the call on the VCS and then initiate's notification of the Emergency via other communication systems.
- The ARTC Junee Controller contacts other relevant RailCorp Train Controller and/or Signallers for the area via VCS telephone hotlines to initiate Emergency broadcasts via other systems.
- The ARTC Junee Controller receiving the call can conference in other parties via VCS telephone hotlines to participate in the Emergency call.
- The ARTC Junee Controller initiates a CountryNet/ICE Priority call to trains to advise of the Emergency.

### **RailCorp Signaller and Controllers**

- The RailCorp Signaller or Controller receives an Emergency notification via VCS telephone hotlines.
- The RailCorp Signaller or Controller responsible for area initiates MetroNet calls to MetroNet equipped trains in area via:
  - Broadcast call – audio RX only on MetroNet equipped trains
  - Group call to MetroNet trains – two-way audio,
  - An “All Stop” data message sent to MetroNet trains will be displayed on the trains radio control head with an audio alert tone.
- The RailCorp Signaller or Controller can broadcast an Emergency message to non MetroNet trains in the area via WB radio using Emergency open channel radio communication protocols.

## **B.6 RailCorp Track initiated Mobile telephone Emergency call - adjacent to ARTC SSFL track**

### **RailCorp Signaller and Controllers**

- An Emergency call using a mobile telephone is received by the RailCorp Signaller or Controller.
- The RailCorp Signaller or Controller responsible for the area initiates MetroNet calls to MetroNet equipped trains in area:
  - Broadcast call – audio RX only on MetroNet equipped trains
  - Group call to selected MetroNet trains – two-way audio,
  - An “All Stop” data message sent to MetroNet trains will be displayed on the trains radio control head with an audio alert tone.
- The RailCorp Signaller/Controller contacts ARTC & RailCorp Controllers/Signallers via VCS telephone hotlines to initiate further response.
- The RailCorp Signaller/Controller can broadcast an Emergency message to non MetroNet trains in the area via WB radio using Emergency open channel radio communication protocols.

### **ARTC Junee Controller**

- The ARTC Junee Controller receives an Emergency notification from the RailCorp Signaller or Controller via VCS telephone hotline.
- The ARTC Junee Controller initiates a CountryNet/ICE Priority call to trains to advise of the Emergency.
- The ARTC Junee Controller contacts other relevant parties via VCS telephone hotlines to initiate other Emergency responses.

## **B.7 RailCorp Signaller or Controller initiated Emergency call - adjacent to ARTC SSFL/MFN track**

### **RailCorp Signaller and Controllers**

- The RailCorp Signaller/Controller contacts the ARTC and RailCorp Controllers responsible for the area via VCS telephone hotlines to initiate Emergency broadcasts via other systems.
- The RailCorp Signaller or Controller responsible for area initiates MetroNet calls to MetroNet equipped trains in area via:
  - Broadcast call – audio RX only on MetroNet equipped trains
  - Group call to MetroNet trains – two-way audio,
  - An “All Stop” data message sent to MetroNet trains will be displayed on the trains radio control head with an audio alert tone.
- The RailCorp Signaller or Controller can broadcast an Emergency message to non MetroNet trains in the area via WB radio using Emergency open channel radio communication protocols.

### **ARTC Junee Controller**

- The ARTC Junee Controller receives Emergency notification from the RailCorp Signaller or Controller via VCS telephone hotline.
- The ARTC Junee Controller initiates a CountryNet/ICE Priority call to trains to advise of the Emergency.
- The ARTC Junee Controller contacts other relevant parties via VCS telephone hotlines to initiate other Emergency responses.

## **B.8 ARTC SSFL Track Network Controller initiated Emergency call - adjacent to RailCorp MPN track**

### **ARTC Junee Controller**

- The ARTC Junee Controller initiates a CountryNet/ICE Priority call to trains to advise of the Emergency.
- The ARTC Controller contacts other relevant RailCorp Signallers and Controllers for the area via VCS telephone hotlines to initiate Emergency broadcasts via other systems.
- The ARTC Junee Controller contacts other relevant parties via VCS telephone hotlines to initiate other Emergency responses.

### **RailCorp Signaller and Controllers**

- The RailCorp Signaller or Controller receives Emergency notification via VCS telephone hotlines.
- The RailCorp Signaller or Controller responsible for area initiates MetroNet calls to MetroNet equipped trains in area via:
  - Broadcast call – audio RX only on MetroNet equipped trains
  - Group call to MetroNet trains – two-way audio,
  - An “All Stop” data message sent to MetroNet trains will be displayed on the trains radio control head with an audio alert tone.
- The RailCorp Signaller or Controller can broadcast an Emergency message to non MetroNet trains in the area via WB radio using Emergency open channel radio communication protocols.

## **Appendix C: CountryNet/ICE Shared Corridor Interface Track area Emergency Call Scenarios**

### **C.1 ARTC controlled Interface Track area (adjacent to Shared Corridor) Driver initiated CountryNet/ICE Emergency call.**

**(This functionality applies in the ARTC managed 2km Interface areas Sefton Pk Jct – Enfield West and Macarthur - Glenlee)**

#### **ARTC Junee Controller**

- An Emergency CountryNet/ICE call is received and answered by the ARTC Controller.
- When a CountryNet/ICE call is answered other CountryNet/ICE equipped trains in area will be conferenced to receive audio of the call.
- The ARTC XLG system will automatically call the nominated RailCorp Signallers and Controllers via VCS telephone hotlines and include them in the CountryNet/ICE Emergency call.
- The ARTC Junee Controller can also contact other relevant parties via VCS telephone hotlines to initiate other Emergency responses.

#### **RailCorp Signaller and Controllers**

- Nominated RailCorp Signallers and Controllers receive Emergency notification via VCS telephone hotlines and are included in the CountryNet/ICE Emergency call.
- The Drivers audio from the CountryNet/ICE unit initiating the Emergency call will rebroadcast via the on board (integrated) WB radio and will be received by other non MetroNet trains and RailCorp Signallers and Controllers in area.
- The RailCorp Signaller responsible for the area initiates MetroNet calls to MetroNet equipped trains in area:
  - Broadcast call – audio RX only on MetroNet equipped trains
  - Group call to selected MetroNet trains – two-way audio,
  - An “All Stop” data message sent to MetroNet trains will be displayed on the trains radio control head with an audio alert tone.
- The RailCorp Signaller can broadcast an Emergency message to non MetroNet trains in the area via WB radio using Emergency open channel radio communication protocols
- The ARTC & RailCorp Controllers/Signallers coordinate via VCS telephone hotlines.

## **C.2 RailCorp controlled Interface Track area (adjacent to Shared Corridor) Driver initiated CountryNet/ICE Emergency call.**

**(This functionality applies in the RailCorp managed 2km interface areas Sefton – Lidcombe, Sefton – Yagoona, Cabramatta Jct – Fairfield and Glenfield – Holdsworthy.)**

### **RailCorp Goods Controller**

- An Emergency CountryNet/ICE call is received and answered by the RailCorp Goods Controller.
- When the CountryNet/ICE call is answered other CountryNet/ICE equipped trains in the area will be conferenced to receive audio of the call.
- The RailCorp XLG system will automatically call nominated RailCorp Signallers and Controllers and the ARTC Junee Controller via VCS telephone hotlines and include them in the CountryNet/ICE Emergency call.
- The RailCorp Goods Controller can also contact other relevant parties via VCS telephone hotlines to initiate other Emergency responses.

### **ARTC Junee Controller**

- The ARTC Junee Controller receives Emergency notification via VCS telephone hotline and is included in the CountryNet/ICE Emergency call.
- The ARTC & RailCorp Controllers/Signallers coordinate via VCS telephone hotlines.

### **RailCorp Signaller and Ops Controller**

- The Nominated RailCorp Signallers / Controllers receive Emergency notification via VCS telephone hotlines and are included in the CountryNet/ICE Emergency call.
- The Drivers audio from the CountryNet/ICE unit initiating the Emergency call is rebroadcast via on board (integrated) WB radio and is received by other non MetroNet trains and RailCorp Signallers and Controllers in area.
- The RailCorp Signaller responsible for the area initiates MetroNet calls to MetroNet equipped trains in area:
  - Broadcast call – audio RX only on MetroNet equipped trains
  - Group call to selected MetroNet trains – two-way audio,
  - An “All Stop” data message sent to MetroNet trains will be displayed on the trains radio control head with an audio alert tone.
- The RailCorp Signaller can broadcast an Emergency message to non MetroNet trains in the area via WB radio using Emergency open channel radio communication protocols.
- The ARTC & RailCorp Controllers/Signallers coordinate via VCS telephone hotlines.





## **Appendix 4    ARTC Safety Management Policy**





AUSTRALIAN RAIL TRACK CORPORATION LTD

## **SAFETY POLICY**

### **Our Goal**

No-one is harmed at work or on our network

### **Our Commitment**

**We will** support a safe and healthy workplace by providing:

- Safe systems of work;
- Equipment that is fit for purpose;
- A workforce that is competent and safety focused;
- An environment that promotes a positive safety culture; and
- Continuous improvement in safety performance.

**We require** all employees, contractors and stakeholders to:

- Work safely at all times and care for the safety of others;
- Comply with relevant laws;
- Take responsibility for their actions;
- Communicate openly and honestly;
- Follow safety procedures; and
- Report all incidents, hazards and unsafe acts.



John Fullerton,  
Chief Executive Officer

May 2012





## **Appendix 5    ARTC Safety Management Plan V1.0**



# SAFETY MANAGEMENT PLAN

This document outlines the practices and processes that the Australian Rail Track Corporation (ARTC) will apply to meet its safety and operational objectives within the states in which it operates.

*Supporting  
document to the  
Safety Management  
System*





**Document Control**

Status	Issue-Revision	Date	Prepared	Reviewed	Approved
Approved	1.0	9 Aug 12	S. Wilson-Ryke	SMS Steering Committee	Safety & Environment Committee

**Amendments Register**

Issue	Section	Date	Detail	Authority

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### 1. Scope and General

#### 1.1 Introduction & Overview of the Business

The Australian Rail Track Corporation (ARTC) is a company incorporated under the Corporations Act. Our shares are owned by the Commonwealth of Australia which is represented by the Minister for Infrastructure & Transport, and the Minister for Finance & Deregulation.

ARTC is one of Australia's largest rail network owners operating and managing over 8,500 kilometres of standard gauge track in South Australia, Victoria, Western Australia, New South Wales and Queensland. Our core competencies include access management, network control, rail infrastructure planning and management, signalling and communications, as well as offering expert advice in developing rail transport solutions to customers.

ARTC's rail network is used to move a range of commodities including general freight, coal, iron ore, other bulk minerals and agricultural products. The network is also important in providing access for interstate and inter-city passenger services.

ARTC plays a critical role in the transport supply chain and in the overall economic development of Australia.

#### 1.2 Scope

This Plan describes the fundamental elements that the ARTC will apply to achieve its safety and operational objectives within the states in which it operates.

In addition this Plan outlines the systems and processes it has in order to not only satisfy legal and accreditation requirements but to also ensure mechanisms are in place to manage risk and enhance safe work practices. Our goal is that no one is harmed at work or on our network.

This document replaces the previous Safety Management Plan SMP-01.

#### 1.3 Objectives

The objective of this document is to provide understanding and reasoning to the elements that make up the Safety Management System (SMS) which in turn will enable the ARTC to:

- ensure that the track, supporting infrastructure and any new construction is built and maintained to suitable standards.
- assist all direct and indirect users of ARTC's infrastructure to do so in a safe, efficient and effective manner for the benefit of all parties.
- control risk to ensure no one is harmed at work or on our network.
- fulfil its rail safety obligations with respect to legislative and regulatory requirements.

### 1.4 Definitions

*Safety Management System (SMS)* – is a prescribed system required to be established by a Rail Transport Operator in order to gain accreditation. ARTC has an on-line SMS.

*Safety Management System Framework (SMSF)* – the framework that contains the principal elements of ARTC's SMS.

Further terms used in this Plan are as defined in NTC National Model Rail Safety Bill and Regulations 2007.

### 1.5 Safety Principles

All ARTC safety practices, processes and procedures are developed from the following principles:

- identification and management of risk;
- management of occurrences and emergencies;
- definition and management of interfaces with other organisations and contractors;
- protection of passenger, employee, contractor and public safety;
- protection of property from damage.

ARTC is responsible for the implementation of these principles within the following aspects:

- Operational aspects
- Infrastructure aspects
- Rolling stock aspects (maintenance only)
- Interfaces with other transport modes
- Interfaces with other rail network
- Human factors management

### 1.6 Adoption of existing practices

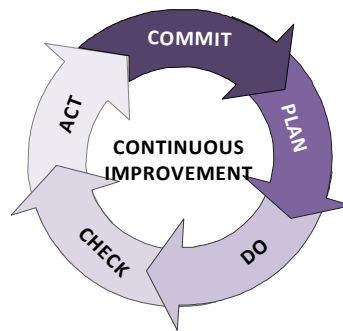
ARTC recognises that there are many existing practices in use in the rail industry which are well tested and proven and which may bring benefit to the ARTC and its business activities. Nevertheless, ARTC will undertake necessary reviews and assessments and implement any additional controls prior to the adopting of existing practices from other railway organisations to ensure suitable levels of safety and operational benefit.

## 2. Safety Management System

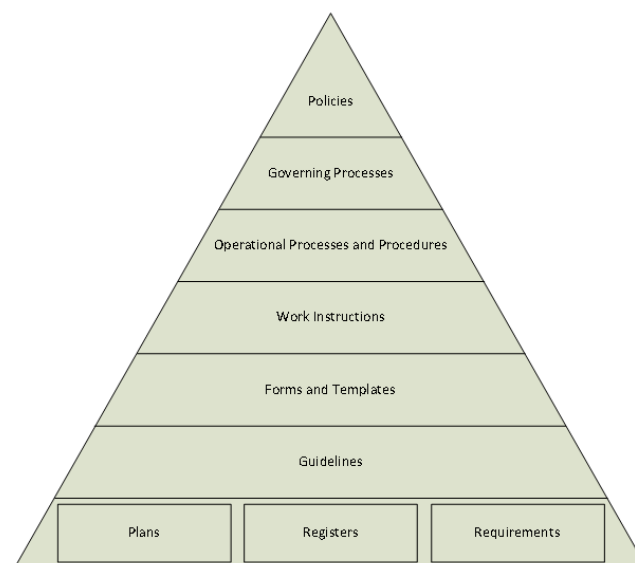
### 2.1 Safety Management System (SMS)

ARTC, as an accredited Rail Transport Operator, is required to have in place a SMS that is compliant to prescribed elements as described under the various states Rail Safety Acts.

The essence of ARTC's SMS is based around the Continuous Improvement Framework model ensuring safety is incorporated into the lifecycle of business practices. The principal elements of ARTC's SMS are outlined in the Safety Management System Framework (SMSF). **Appendix 1 – Safety Management System Framework.**



The principal elements of the SMSF provide guidance and links to governing and or operational processes which in turn link to work instructions, guidelines and/or forms and templates.



This technology-based SMS is readily available via the intranet and internet to all workers of ARTC, including contractors. Further detail of this system is described under Document Control and Information Management (2.3.6).

## 2.2 Application

This document, whilst it is written as a stand-alone plan, is intended to be used in conjunction with the SMSF and describe the 'what' and the 'why' of these principal elements.

## 2.3 Safety Management System Framework (SMSF) Elements

The ARTC's SMSF encompasses the standard elements contained within the NTC National Model Regulations, Schedule 2 and the supporting NTC Guideline – Preparation of a Rail Safety Management System. They are as follows:

Safety policy	Safety culture	Process control	Asset management
Regulatory compliance	Corrective action	Management of change	Consultation
Fatigue	Alcohol & other drugs	Health & fitness	Resource availability
Internal communication	Risk management	Human factors	Security management
Emergency management	Procurement & contract management	Management of notifiable occurrences	Rail safety worker competence
Safety audit arrangements	Governance & internal control	Review of the safety management system	Safety performance measures
General engineering & operational systems safety requirements	Document control arrangements & information management	Management, responsibilities, accountabilities & authorities	Safety interface co-ordination

These 28 elements form the core of ARTC's SMSF. Each element is integrated into ARTC's business processes'; supporting that safety is an integral and inherent part of ARTC's objective to provide a safe place of work.

During the development of the SMSF some elements naturally complemented another, where this occurred these elements were combined. Further, two elements were added to the Framework, Maintain Accreditation and Project Management as these were seen as additional fundamental components to ARTC's SMSF.

The following pages describe the principal system elements whilst referencing the element both in the National Rail Safety Regulations and ARTC's SMSF.

### 2.3.1 **Safety Policy**

(RSR Sch 1.1)

Safety policy forms the foundation of ARTC's commitment to safety and identifies how the company aims to achieve its goal of no one being harmed at work or on our network.

The ARTC Safety Policy is endorsed by the Chief Executive Officer (CEO) and the Board.

**ARTC SMSF Reference: Safety Policy**

### 2.3.2 **Safety Culture**

(RSR Sch 1.2)

Safety culture is an organisational atmosphere where safety and health is understood to be, and is accepted as, the number one priority<sup>1</sup>.

ARTC has built a framework based on the continuous improvement lifecycle to support its commitment in encouraging a positive safety culture and embedding it into business practices.

As principles ARTC:

- a. promotes a 'just culture' that acknowledges human error and the need to manage it by supporting systems and practices that promote learning from past errors or mistakes;
- b. encourages workers to identify potential risks and deal with issues as they emerge before they can escalate to serious occurrences;
- c. updates employees and stakeholders on what is happening in ARTC, creating an informed culture; and
- d. continues to improve business practices from learning's and findings from its employees own experience and making effective use of data information.

**ARTC SMSF Reference: Safety Culture**

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<sup>1</sup> term first arose after the investigation of the Chernobyl nuclear disaster in 1986



### **2.3.3 Governance and Internal Control Arrangements**

*(RSR Sch 1.3)*

It is important to have appropriate governance and internal control arrangements to ensure the information required to manage safety are available to the people at the right level to enable effective decision making.

ARTC's Governance and Internal Control structure is headed by the Board and the CEO giving direction and oversight over the organisation and has ultimate responsibility for safety, business processes, resourcing and appointment of persons into key areas.

ARTC is structured into two operational business units with each unit headed by an Executive General Manager. These managers report directly to the CEO. In this way the CEO and the Board are kept informed of the way in which the SMS is performing and its effect on rail operations and safety performance.

ARTC has formed a Safety & Environment Committee that is led by the CEO. This regular monthly meeting reviews operational safety performance and is also attended by:

- Chief Financial Officer
- Executive General Managers
- General Manager Risk & Safety
- General Managers East/West & North/South
- General Manager Media and Communications

**ARTC SMSF Reference: Governance & Internal Control**

### **2.3.4 Management Responsibilities, Accountabilities and Authorities**

*(RSR Sch 1.4)*

Workplace health and safety is the joint responsibility of ARTC management and workers.

Responsibility can be defined as an individual's obligation to carry out assigned duties, whilst authority implies individuals have the right to make decisions and power to direct others. Responsibility and authority may be delegated to subordinates, giving them the right to act for superiors, however the superior remains accountable for seeing that they are carried out.

Individual responsibilities apply to every employee in the workplace, including the Chief Executive Officer.

As a general overview of how responsibilities, accountabilities and authorities are addressed and distributed throughout the management structure the following applies:

<b>Chief Executive Officer and the Board</b>	<ul style="list-style-type: none"> <li>• Set direction and strategy</li> <li>• Determine policy and governance</li> <li>• Receive compliance assurance of the SMS</li> <li>• Ensure adequate resources available</li> <li>• Assess appropriateness of SMS</li> </ul>
<b>Executive General Managers</b>	<ul style="list-style-type: none"> <li>• Implements policy and direction</li> <li>• Manage operational activities</li> <li>• Ensure resources are appropriately distributed</li> </ul>
<b>General Managers</b>	<ul style="list-style-type: none"> <li>• Provide resources to Implement SMS</li> <li>• Demonstrate and provide assurance of compliance of the SMS</li> </ul>
<b>All Other Managers</b>	<ul style="list-style-type: none"> <li>• Determine local systems requirements</li> <li>• Ensure compliance with statutory and corporate requirements</li> </ul>

Specific safety and operational accountability(s) are included in position description and are signed by that person and their direct manager acknowledging and accepting those responsibilities.

**ARTC SMSF Reference: Responsibility, Authority & Accountability**

### **2.3.5 Regulatory Compliance**

(RSR Sch 1.5)

Regulatory compliance provides the basis on how ARTC identifies, allocates and complies with requirements under the Rail Safety Act, Work Health Safety (WHS), Environmental and other various Acts and Regulations.

ARTC subscribes to an online service which provides updates on legislative changes, relevant to rail safety, WHS and environmental throughout the jurisdictions ARTC operates in. This resource assurance that changes to relevant Acts and Regulations are captured.

**ARTC SMSF Reference: Regulatory Compliance**

### **2.3.6 Document Control Arrangements and Information Management**

*(RSR Sch 1.6)*

The management of documents and how they are communicated and made available is critical for railway operations and the rail safety workers and employees who rely on those systems and procedures to carry out their work.

ARTC has developed internet and intranet sites that contain, in part, information relating to safety, operations and other business activities. This information includes, but is not limited to the Policies, Management Plans, Safety & Operational Procedures, ARTC Code of Practice, Route Standards and Incident Management Plans.

The control of documents within ARTC emphasise that:

- Documents are adequately prepared, reviewed and approved prior to their issue for use;
- The distribution and use of documents is properly controlled; and
- Changes to documents are made in a controlled manner and that only the latest authorised revisions of documents are used.

A key feature of the ARTC's SMS is that it is available on-line and utilises a visual based platform using Microsoft Visio. The fundamental principle is to provide a clear and simple SMS founded on a high level framework (SMSF) which has embedded information to support explanation or understanding of that element.

The SMSF is only able to be edited by the General Manager Risk & Safety (or their delegate), ensuring only relevant and current information and documentation. Updates of the SMS are communicated to all stakeholders who have the responsibility to ensure obsolete documents are replaced if printed.

In addition ARTC also manages and records information that is used by all Operators on ARTC's network. This includes information such as speed restrictions, track warnings, track possessions, safe working notices, network service plan amendments and heat related speed restrictions. ARTC records this detail as a train notice and distributes them to operators.

Certain records and/or information are required to be kept by an organisation. This can be for a variety of reasons including tax, medical, safety or operational. ARTC is obliged, as a Commonwealth Government owned Corporation, to retain all such records as specified under the Archives Act 1983.

**ARTC SMSF Reference: Document Control & Information Management**

### **2.3.7     *Review of the Safety Management System***

*(RSR Sch 1.7)*

The purpose of a SMS review is to assess its current and continuing suitability and effectiveness, its objectives and policies and to determine whether any changes in procedure, method or philosophy are considered necessary to meet current and future needs, therefore ensuring continuous improvement.

The system review is conducted annually to verify compliance to the governing processes of the SMSF. Where appropriate this review forms part of the basis on which annual safety reports can be prepared for submission to the Regulatory authorities.

ARTC's commitment to safety is highlighted by establishing a Safety & Environment Committee who holds the responsibility for the ongoing review of the suitability and effectiveness of all elements of the SMS. This Committee who meet monthly review organisational safety performance including safety data, incidents, investigations and recommendations, audits and findings and the status of corrective actions.

*ARTC SMSF Reference: SMS Review*

### **2.3.8     *Safety Performance Measures***

*(RSR Sch 1.8)*

Key Performance Indicators (KPI's) measure safety performance of both the system and, where appropriate individuals, and allow the effectiveness of the SMS to be determined.

ARTC's strategic planning process establishes KPI's for the organisation. These KPI's are then cascaded to divisional KPI's which include safety KPI's. Regular management reporting and the annual performance review process monitor the achievement of safety performance at various levels.

For the business, both lead and lag indicators are included as part of the safety management planning. These are supplemented by specific objectives in relation to the rail operations.

*ARTC SMSF Reference: Performance Measures*

### **2.3.9 Safety Audit Arrangements**

*(RSR Sch 1.9)*

Safety audits are necessary for our business to provide management, through independent assessment, the knowledge and confidence that the safety systems established for controlling safety risks are being adhered to, are appropriate for their intended use and are effective. Such audits provide the focus for continuous improvement, together with ensuring the company satisfies both its corporate due diligence requirements and its statutory obligations.

The SMS is audited at intervals dependent on risk. An Audit Schedule is maintained by the General Manager Risk & Safety with such scope as to ensure that all aspects of the system and its processes are audited on a risk basis. Notwithstanding the SMS will be audited at least once per year.

Audits include an evaluation of:

- activities, work areas, and services
- practices, systems, procedures and instruction
- documentation

Audits are undertaken by suitably trained and qualified personnel who are not directly responsible for the area being audited.

**ARTC SMSF Reference: Safety Audit**

### **2.3.10 Corrective Action**

*(RSR Sch 1.10)*

Safety deficiencies identified from audits, inspections, surveillance, incidents and/or customer complaints are required to be actioned, giving priority to those matters representing the greatest safety risk.

Corrective actions from Rail & Workplace Safety Audits and external audits conducted on ARTC's SMS are recorded and monitored by the Safety & Environment Committee.

**ARTC SMS Framework Reference: Corrective Action**

### **2.3.11 Management of Change**

*(RSR Sch 1.11)*

Change is managed to ensure that related safety aspects are not only identified but are properly and systematically implemented. Change includes the introduction of new and amended operations, legislation, control systems (inc signalling), management systems, organisational structures, rolling stock and track modification and any other processes which may affect the safety of ARTC operations.

Similar to corrective action the need for change may also be identified through audit, inspection, surveillance or as the result of an incident.

**ARTC SMSF Reference: Management of Change**

### **2.3.12 Consultation**

*(RSR Sch 1.12)*

Consultation is essential as it engages the workforce and assists in their ownership of the procedures and/or work instructions being implemented. The workforce provides a pool of knowledge, experience and ideas whose participation and input is a valuable resource in developing, implementing and managing safety and business improvement in all areas.

ARTC promotes the involvement of its workforce in the consultation process and adopts the standard and well recognised principles that effective consultation:

- occurs early before decisions are made or finalised;
- is planned, genuine and collaborative;
- is characterised by mutual trust between the parties;
- requires the use of interpersonal, facilitative and listening skills;
- includes a proactive role for the workforce;
- provides the opportunity for feedback; and
- results in improved outcomes.

**ARTC SMSF Reference: Consultation & Communication**

### **2.3.14 Internal Communication**

*(RSR Sch 1.13)*

Communication of safety material throughout the organisation is important to ensure the people who need it and may be required to use it have both relevant and accurate information.

ARTC disseminates the content of its SMS through the internet and intranet sites.

All ARTC personnel are encouraged to identify and report on potential safety issues and the various safety committees, including the Health and Safety Committees, provides an ongoing forum for participation.

**ARTC SMSF Reference: Consultation & Communication**

### **2.3.15 Risk Management**

*(RSR Sch 1.14)*

The management of risk is an ongoing process and is performed for all activities to ensure those risks associated with an identified hazard are eliminated or reduced to a level that is So Far As Is Reasonably Practicable (SFAIRP).

It is important to remember that all activities of an organisation involve risk; there is not progress without it. Each specific sector or application of risk management brings with it individual needs, audiences, perceptions and criteria. The key to good, tangible and systematic risk management is a holistic and transparent approach to mitigate negative risk and where possible maximise positive risk or opportunity.

ARTC adopts the following approach to risk management:

- Identify potential hazards and assess the associated risk for operational and work activities;
- Determine the controls needed to eliminate or mitigate the hazard or risk and monitor the controls. Develop appropriate documented procedures, safe work method statements and similar;
- ensuring that Human Factors or the fallibility of human beings are considered when risk assessments are being conducted.
- Provide training both formally and less formally via toolbox talks, the safe work method statements and provide on-going safety awareness through pre-work briefings and worksite protection plans; and
- Address those hazards identified through third party complaints.

**ARTC SMSF Reference: Risk Management**



### **2.3.16 Human Factors**

(RSR Sch 1.15)

Human factors discovers and applies information about human behaviour, abilities, limitations, and other characteristics to the design of tools, machines, systems, tasks, jobs, and environments for productive, safe, comfortable, and effective human use<sup>2</sup>.

ARTC is aware that human factors are always present in the workplace environment and recognises the possibility of human error and its consequential effect on safety.

ARTC is committed to include effective processes for the integration of Human Factor principles into all aspects of rail safety. In doing so ARTC's intention is to:

- Consider the potential for human error when conducting risk assessments;
- Implement controls to recognise the potential for human error in creating hazardous events;
- Implement appropriate systems to deal with workers who breach ARTC's policies, standards and procedures;
- Provide human factors training; and
- Ensure just culture principles are in place that recognises human error.

**ARTC SMSF Reference: Human Factors**

### **2.3.17 Procurement and Contract Management**

(RSR Sch 1.16)

Robust and transparent supply and subcontract management processes ensures that purchased or outsourced products, or materials meet safety requirements as well as being fit for purpose.

Evaluation and selection of subcontractors and suppliers is on the basis of their ability to meet specified or subcontract requirements, including any specific quality or safety requirements and related items, and the subsequent coordination of these activities across all levels of the organisation.

ARTC defines the type and extent of control exercised by the company over suppliers. This can be dependent upon the type of product/service, the impact of the quality of the sub-contracted product/service upon our product/service, on any quality reports and records of the previous demonstrated capability and performance of the subcontractor or supplier. The supplier or subcontractor must have a SMS capable of developing and implementing (as a condition of contract) site specific safety management plans and/or safe work instructions compatible with ARTC's safety policies.

**ARTC SMSF References: Contractor Management & Procurement**

<sup>2</sup> Chapanis, 1985

**2.3.18 General Engineering and Operational Systems Safety Requirements***(RSR Sch 1.17)*

Documented engineering and operational standards managing the lifecycle stages form the foundation of asset management.

ARTC has structured sets of Engineering and Operational Systems safety standards that cover the relevant aspects of:

- Track and civil safety
- Track infrastructure rollingstock interfaces
- Signalling and communication systems
- Operations and train control systems
- Interfacing with other railway infrastructure and other transport modes

When commissioning of new or improved operational systems is required ARTC ensures that activities are planned, conducted by competent persons, that the results are verified against the design requirements, that operations continue in a safe manner during the hand-over process and that documentation is provided or updated.

ARTC has train management systems in place which are monitored and maintained via scheduled inspection, auditing and maintenance programs to ensure safety.

**ARTC SMSF Reference: Engineering and Operational Systems**

**2.3.19 Process Control***(RSR Sch 1.18)*

All works processes and activities have some potential to create risk to personnel or carried out incorrectly resulting in operational or environmental damage or other failure. To reduce the likelihood of such events, procedures are established to ensure processes and activities are conducted in a planned and controlled manner.

All safety engineering work that is carried out by ARTC Infrastructure Managers, construction and maintenance contractors is required to be carried out in accordance with the specified standards and relevant procedures. ARTC ensures that these standards and procedures are kept up to date and ARTC Infrastructure Managers, construction and maintenance contractors are advised and furnished with current documents. ARTC monitors conformance by conducting audits.

**ARTC SMSF Reference: Process Control**

### 2.3.20 **Asset Management**

(RSR Sch 1.19)

Effective and robust Asset Management disciplines ensure assets are designed, operated and maintained to suitable standards and are safe to use and fit for purpose.

ARTC, as the owner and manager of key rail infrastructure has developed asset management processes to manage risks associated with the design and use of physical assets throughout their lifecycle, being initial concept, through to design stage and continuing to the assets use and disposal.

*ARTC SMSF Reference: Asset Management*

### 2.3.21 **Safety Interface Co-ordination**

(RSR Sch 1.20)

When operations meet at a common boundary or interconnection, (the interface), risks to safety increase due to the existence of joint systems. Where interfaces are identified risks to safety and the management of those risks are required to be documented (Safety Interface Agreements).

Interfaces can be found with:

- **Rail/rail interfaces:** rail operations of one operator, in relation to rail operations of another rail operator
- **Rail/public road interfaces:** 'rail or road crossings' that include any public roadway or public pathway, or
- **Rail/relevant road interface:** 'rail or road crossings' that include any other roadway or pathway, such as non-public roads or paths.

Rather than a one-off process, safety interface agreements are intended to be 'living documents' that require ongoing monitoring of risks, including regular audits to ensure that agreed control measures continue to be appropriate.

*ARTC SMSF Reference: Safety Interface Coordination*

### **2.3.22 Management of Notifiable Occurrences**

*(RSR Sch 1.21)*

Regulations prescribe certain events that occur on railway premises or during the course of railway operations which are to be reported through to the Rail Safety Regulator within defined timeframes.

The various State Rail Safety Acts provide, in part, that an accredited person must inquire into and report to the Rail Safety Regulator on any railway accident or incident that may affect the safe construction, operation or maintenance of a railway in respect of which the person is accredited.

Investigations into the cause of railway safety accidents and incidents are conducted in accordance with AS 4292.7 – Railway Safety Investigation.

**ARTC SMSF References: Notifiable Occurrences & Incident Management**

### **2.3.23 Rail Safety Worker Competence**

*(RSR Sch 1.22)*

Worker competency is fundamental to effective safety management. Rail workers must have the necessary skills and knowledge to safely carry out their assigned tasks. They must also have a clear understanding of the hazards surrounding them and be able to confidently employ the right controls to manage those hazards.

ARTC is committed to ensuring that rail safety workers carrying out rail safety work in connection with railway operations receive instruction and are trained with the competencies necessary to perform their designated work.

All persons that need defined or specialist skills or could be adversely affected by the lack of such skills, are identified and documented, and planning is conducted to ensure that such skills are developed.

Once training has been conducted, ARTC shall review its suitability, relevance and effectiveness to ensure worth, comprehension and retention. Competence, qualification requirements and recognised training shall be determined with reference to endorsed industry competency standards. Documentary evidence and records of such competence and reviews are maintained.

**ARTC SMSF Reference: Rail Safety Worker Competency**

### **2.3.24 Security Management**

*(RSR Sch 1.23)*

A Security Management Plan is a document or set of documents that sets out the measures that are to be implemented by the rail transport operator to protect people from theft, assault, sabotage, terrorism or other criminal acts of other parties and from other harm.

ARTC recognises its obligation to manage security over ARTC's operations which include a focus on customer, public, worker and infrastructure security. ARTC applies a risk based approach to address the threat, hazard or disaster associated with criminal or terrorist activity.

The Australian Government's National Terrorism Public Alert System is used by ARTC to monitor alert levels.

**ARTC SMSF Reference: Security Management**

### **2.3.25 Emergency Management**

*(RSR Sch 1.24)*

An emergency is classified as an occurrence requiring a sustained response by State Emergency Services.

ARTC has developed a robust system that theoretically and practically exercises the effectiveness this supported response. This system identifies responsibilities for preservation of evidence at an incident site, appointment of a site manager, site security, and the process of communication between site manager and an internal or external investigator.

ARTC actively participates in emergency exercises organised by emergency services organisations.

**ARTC SMSF Reference: Emergency Management**

**2.3.26 Fatigue***(RSR Sch 1.25)*

The risk of fatigue can affect the performance of rail workers tasks if not managed.

ARTC employees and contractors are made aware of the fact that management of work related fatigue is a responsibility to be shared by both ARTC to implement practical fatigue control measures and the employees to present for duty in a fit and well rested condition.

ARTC has also established an external employment policy that ensures that any authorised external employment is taken into consideration while planning work rosters.

**ARTC SMSF Reference: Fatigue**

**2.3.27 Drugs and Alcohol***(RSR Sch 1.26)*

The effect of drugs and alcohol on workers can lead to impairment resulting in accidents and injury.

ARTC promotes a safe, healthy and productive work environment that is free from drugs and alcohol.

ARTC is committed to a drug and alcohol testing program and seeks to provide counselling and rehabilitation to assist and support personnel where appropriate.

**ARTC SMSF Reference: Drugs and Alcohol**

**2.3.28 Health and Fitness***(RSR Sch 1.27)*

Workers must be medically fit to perform specific rail safety tasks.

ARTC is committed to ensure that employees who are required to work on or about the railway are medically fit to carry out their duties. ARTC complies with the National Standard for Health Assessments of Rail Safety Workers (the Standard).

ARTC has in place an employee assistance program which is available to employees and their families. This program is of special significance where counselling services are requested.

ARTC's commitment to employee wellbeing extends beyond that of the Standard by supporting the ongoing health and wellbeing of the entire workforce.

**ARTC SMSF Reference: Health and Wellbeing**

### **2.3.29 Resource Availability**

*(RSR Sch 1.28)*

No management system can operate effectively if the resources available are not available.

The Australian Rail Track Corporation Limited is a Company created under the provisions of the Corporations Act wholly owned by the Commonwealth Government and has the financial capacity to sustain safe railway operations, including ability to comply with the SMS, meet public liability claims and has provided for dealing with foreseeable emergencies and catastrophic events. Risk financing by external insurance is negotiated annually on the basis of loss history and takes into account other risk management initiatives in place.

ARTC Corporate Planning Process has long term and short term business planning components which cascade to divisional business plans that identify the tasking ahead and allow for provision of adequate resources including people and equipment with which to operate and maintain a railway, and to implement, manage and maintain the SMS.

Integral to this is the responsibility for ensuring that *“resources are both adequate and appropriate to meet both current and future objectives”*. These responsibilities are allocated to senior management throughout the responsibility and authority chain.

**ARTC SMSF Reference: Resource Availability**

### **2.3.30 Project Management**

The discipline of project management integrates the elements of initiating, planning, executing, monitoring and controlling, and closing to achieve specific goals and objectives.

ARTC has established a phased project management framework dependent on scalability and nature of the project.

**ARTC SMSF Reference: Project Management**



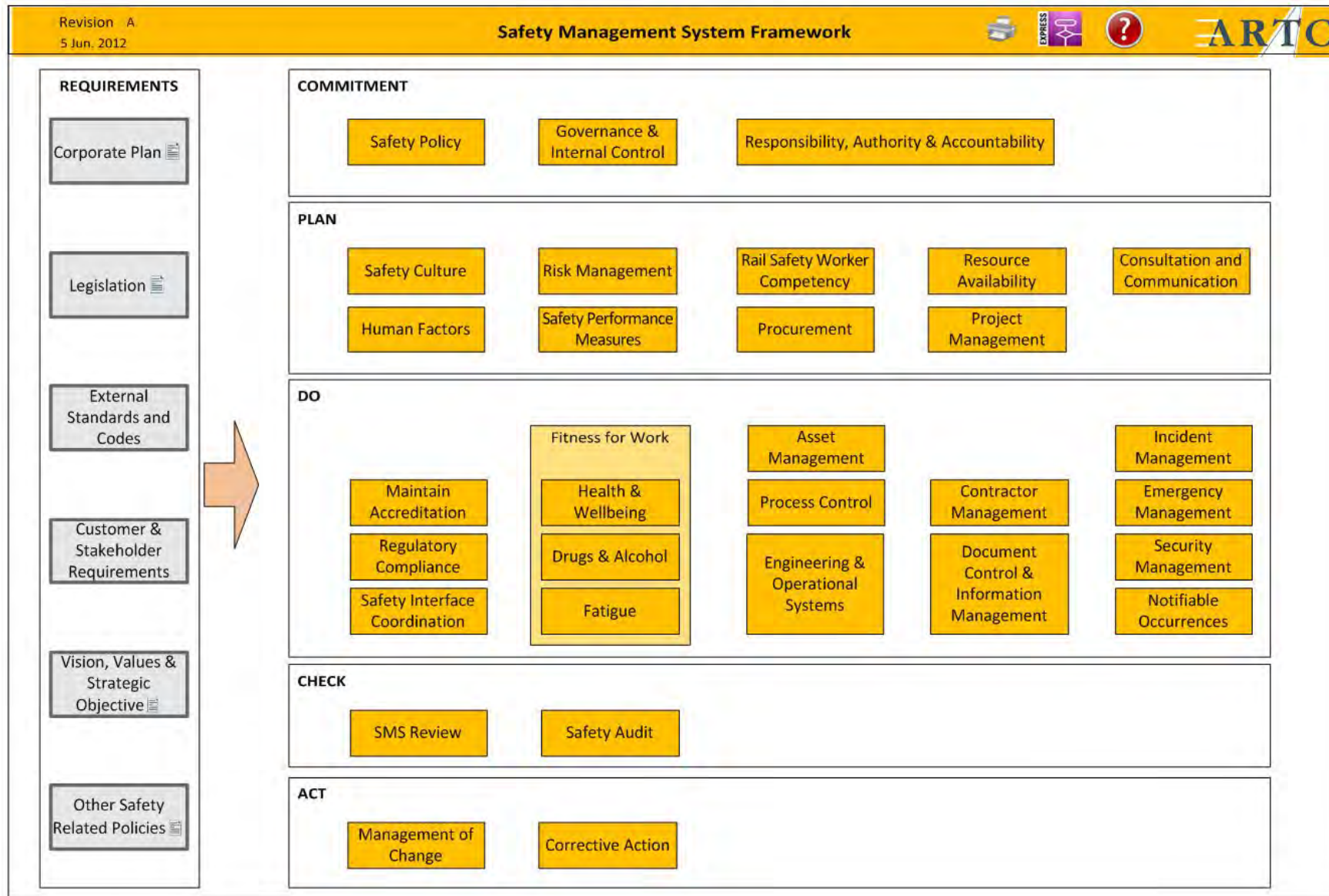
**2.3.31 Maintain Accreditation**

Operators are not permitted to operate unless they are granted accreditation by the Rail Safety Regulator, as prescribed under the Rail Safety Act. Rail safety accreditation attests that an operator has the competence and capacity to manage risks to safety associated with their rail operations.

Accreditation posts a number of regulatory obligations that are required to be met to ensure continued rail operations. Some of these obligations are prescribed under the Rail Safety Act or conditions on accreditation.

*ARTC SMSF Reference:* Maintain Accreditation

## Appendix 1 – Safety Management System Framework



## **Appendix 6    Interface Agreement - RailCorp Operations on the ARTC Network. - Between Rail Corporation New South Wales and Australian Rail Track Corporation Limited**



# **INTERFACE AGREEMENT**

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## **RailCorp Operations on the ARTC Network**

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**Between**

**RAIL CORPORATION NEW SOUTH WALES**

**and**

**AUSTRALIAN RAIL TRACK CORPORATION LIMITED**

**2011**

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# **INTERFACE AGREEMENT**

## **(RailCorp operations on the ARTC network)**

**DATE:**

**BETWEEN:**        **Rail Corporation New South Wales** (ABN 59 325 778 353) of Level 20, 477 Pitt Street, Sydney NSW 2000 ("RailCorp")

**AND:**              **Australian Rail Track Corporation** (ABN 75 081 455 754) of ARTC Building, off Sir Donald Bradman Drive, Mile End SA 5031 ("ARTC")

**each a party and together the parties.**

## **1 Background**

- A.**    The Rail Safety Acts require RailCorp and ARTC to identify and assess and manage, so far as is reasonably practicable, risks to safety that may arise from their respective Operations, and to seek to enter into Interface Agreements to manage those risks.
- B.**    RailCorp has Access Rights to the Network in New South Wales, Victoria and Queensland.
- C.**    The parties have entered into this agreement in order to comply with their obligations under Part 2, Division 3 of the Rail Safety Act (NSW), Part 4 Division 2 of the Rail Safety Act (Victoria) and Part 4 Division 3 Subdivision 4 of the Transport (Rail Safety) Act 2010 (Queensland), in relation to the Operations and Interfaces covered by this agreement.

**IT IS AGREED THAT:**

## **2 Interpretation**

### **2.1 Definitions**

**Access and  
Communications  
Representatives**

Means the persons described in Schedule 5.

**Access Rights**

Means RailCorp's rights to operate on the Network, which as at the date of this agreement is comprised in the documents referenced in



Schedule 2 and as subsequently amended, varied, superseded, replaced or otherwise agreed from time to time.

**Certificate of Competence**

Means a certificate evidencing the competence of a rail safety worker for the purposes of section 21 (or the previous section 36) of the Rail Safety Act (NSW).

**Incident Management and Emergency Response**

Means the structures and processes for the management of emergencies and incidents of the parties, as amended from time to time.

**Interfaces**

Means those interfaces arising from RailCorp's rights to access to and the operation of RailCorp Rolling Stock on the ARTC Network, as specified in Schedule 2.

**Interface Agreement**

Means an agreement in writing about managing risks to safety in accordance with Part 2, Division 3 of the Rail Safety Act (NSW), Part 4 Division 2 of the Rail Safety Act (Victoria) and Part 4 Division 3 Subdivision 4 of the Rail Safety Act (Qld).

**ITSR**

Means the Independent Transport Safety Regulator.

**Network**

Means the system of railways owned, managed or controlled by ARTC to which RailCorp has Access Rights and includes the Hunter Valley and defined interstate rail networks as leased, operated, managed and maintained by ARTC (ARTC Network).

**NSW Rail Safety Work**

Means "rail safety work" as defined in the Rail Safety Act (NSW).

**Operations**

Means the operations of the parties, whether in respect of Rolling Stock or Rail Infrastructure, to which this agreement applies, and includes all:

- (a) "railway operations" within the meaning of that definition in the Rail Safety Act (NSW);
- (b) "railway operations" within the meaning of that definition in the Rail Safety Act (Qld) ;
- and
- (c) "rail operations" within the meaning of that definition in the Rail Safety Act (Vic).

<b>Personnel</b>	Means officers, employees, consultants, agents, representatives, contractors (including sub-contractors and their employees and contractors) and officers of a party and its Related Bodies Corporate.
<b>Queensland Rail Safety Work</b>	Means "rail safety work" as defined in the Rail Safety Act (Qld).
<b>Rail Infrastructure</b>	Means the rail infrastructure of the parties to which this agreement applies, and: <ul style="list-style-type: none"> <li>(a) in respect of any rail infrastructure in New South Wales, includes all "rail infrastructure" within the meaning of that definition in the Rail Safety Act (NSW);</li> <li>(b) in respect of any rail infrastructure in Queensland, includes all "rail infrastructure" within the meaning of that definition in the Rail Safety Act (Qld);</li> <li>(c) in respect of any rail infrastructure in Victoria, includes all "rail infrastructure" within the meaning of that definition in the Rail Safety Act (Vic); and</li> <li>(c) for the avoidance of doubt, includes railway platforms and stations, wherever located.</li> </ul>
<b>Rail Safety Act (NSW)</b>	Means the Rail Safety Act 2008 (NSW).
<b>Rail Safety Act (Qld)</b>	Means the Transport (Rail Safety) Act 2010 (Queensland)
<b>Rail Safety Act (Vic)</b>	Means the Rail Safety Act 2006 (Victoria)
<b>Rail Safety Acts</b>	Means the Rail Safety Act (NSW), the Rail Safety Act (Qld) and the Rail Safety Act (Vic).
<b>Rail Safety Regulations (Vic)</b>	Means the Rail Safety Regulations (Victoria) 2006
<b>Related Bodies Corporate</b>	Has the meaning given to it in the <i>Corporations Act</i> 2001 (Cth).
<b>Risk Review Representatives</b>	Means the persons described in Schedule 5.
<b>Rolling Stock</b>	Means the Rolling Stock of RailCorp that accesses the Network pursuant to RailCorp's Access Rights.

**Victorian Rail Safety Work** Means "rail safety work" as defined in the Rail Safety Act (Vic)

2.2 In this agreement unless the context requires otherwise:

- (a) The singular includes the plural and vice versa;
- (b) Words importing any gender include the other genders;
- (c) All headings, bold typing and italics have been inserted for convenience or reference only and do not define, limit or affect the meaning or interpretation of this agreement;
- (d) Reference to a natural person includes any company, partnership, joint venture, association or corporation of other body corporate or any governmental authority and in each and every case includes a reference to a person's executors, administrators, successors, substitutes and assigns; and
- (e) Reference to a statute, ordinance, code or other law includes regulations and other statutory instruments under it and consolidations, amendments, re-enactments or replacements of any of them.

### **3 Term Of This Agreement**

3.1 This agreement commences on the date of execution and continues until termination.

3.2 This agreement will terminate if:

- (a) both parties simultaneously enter into a replacement Interface Agreement; or
- (b) RailCorp ceases to have Access Rights to operate on the Network.

### **4 Scope of this Agreement**

4.1 This agreement applies to the interface of Operations between the parties on or about the location(s) described in Schedule 2 (including the Rail Infrastructure and the Interfaces). The Rail Infrastructure assets and the party responsible for the maintenance of those assets are outlined in Schedule 2.

4.2 The parties may amend Schedule 2 at any time by written agreement.

- 4.3 Each party will record this agreement in the party's register of Interface Agreements.
- 4.4 This agreement does not affect or derogate from the parties' rights and obligations under the *Civil Liability Act 2002*, or the documents listed in Schedule 2, pursuant to which RailCorp has Access Rights to the Network, their functions and powers under any other Act.
- 4.5 In the event of any inconsistency, conflict or ambiguity between any clause, term or condition in any document listed in Schedule 2, and any clause, term or condition of this agreement, the parties acknowledge and agree that the document listed in Schedule 2 will apply and otherwise prevail to resolve the inconsistency, conflict or ambiguity.

## **5 Identification, assessment and management of risk**

- 5.1 The parties acknowledge and agree that they have identified and assessed risks to safety, so far as is reasonably practicable, that may arise in relation to the Interfaces:
  - (a) during the life cycle of Rail Infrastructure and Rolling Stock; and
  - (b) arising from change in the use or application of Rail Infrastructure or Rolling Stock,and the results of this assessment are as set out in Schedule 3 of this agreement.
- 5.2 Without limitation, the parties acknowledge and agree that Schedule 3 records:
  - (a) the identified risks to safety;
  - (b) risk assessments;
  - (c) measures to manage safety risks;
  - (d) the party responsible for implementation and maintenance of the safety risk management measures; and
  - (e) where appropriate the timetable for implementation of safety risk management measures.
- 5.3 The parties may amend schedule 3 at any time by written agreement.
- 5.4 Subject to clause 5.5, the party responsible for implementation and maintenance of the safety risk management measures will be responsible for their cost of implementation and maintenance.



- 5.5 A party may agree to contribute to the funding of the cost of implementation and/or maintenance by another party of safety risk management measures.
- 5.6 To the extent required after the date of this agreement, the parties may undertake identification and assessment of safety risks individually or jointly, or may adopt a risk assessment carried out by the other party.
- 5.7 For clarification, the parties have agreed that those persons set out in Schedule 3 under the heading "Control Responsibility" are responsible for:
- (a) implementing and monitoring the performance of each of the risk control measures allocated to it in Schedule 3 to the extent that it owns or controls the infrastructure, equipment, personnel or system required to implement the safety risk management measure; and
  - (b) modifying the operation of each of the risk control measures allocated to it in Schedule 3, whether or not in response to performance information, provided that any modification by one party must, to the extent it involves the other party, be agreed by the other party.
- 5.8 Each party must ensure that its Safety Management System:
- (a) is consistent with the risk register in Schedule 3; and
  - (b) incorporates the party's responsibilities for specific risks as identified in Schedule 3.

## **6 Monitoring and review of risk**

- 6.1 Each party will monitor and review the safety risks and control measures to manage the safety risks for which it is responsible, including progress against the timetable for implementation (if required) of safety risk management measures.
- 6.2 A joint formal review will be undertaken no later than the date that is 6 months after the date that this Agreement is executed ("**Initial review**"). Following the Initial Review, the parties will conduct further formal reviews:
- (a) at least once every four years; or
  - (b) at such other times as deemed necessary by the parties.
- 6.3 The parties' nominated Risk Review Representatives will conduct the review of safety risks and control measures contained in this agreement.

- 6.4 The parties will individually review, on an ongoing basis, the safety risks and control measures contained in this agreement to ensure that they continue to provide effective safety controls of the Operations on and around the Interfaces.
- 6.5 The reviews will take into consideration any incidents related to the Interfaces and any operational changes or changes made to the control measures.
- 6.6 The parties will consult with each other in relation to the outcome of their monitoring and review.
- 6.7 If, following a party's monitoring and review under this clause 6, a safety risk is considered to be intolerable, the parties will work collaboratively and cooperatively to agree on more control measures to manage the safety risk so far as is reasonably practicable and will record any changes in Schedule 3.

## **7 Changes to the Interface**

- 7.1 RailCorp and ARTC shall liaise with each other regarding any planned alteration to infrastructure, rolling stock, procedure or circumstance that might impact on the safety of Operations on or around the Interfaces. Any changes in relation to the Interfaces shall be recorded as an amendment in this agreement.
- 7.2 Clause 7.1 does not affect the operation of clause 6.2.

## **8 Access to Property**

- 8.1 Nothing in this agreement will be construed as derogating from or adversely affecting RailCorp's Access Rights to the Network.

## **9 Operations Procedures**

- 9.1 The operating procedures for the Network are set out in the documents referenced in Schedule 4 and this agreement, and the parties agree to comply with these procedures.

## **10 Incident Reporting and Incident Management**

- 10.1 The parties agree to manage emergencies and incidents according to their respective Incident Management and Emergency Response plan, to the extent that such incidents do not affect the other party.
- 10.2 In the event of any emergency and/or incident affecting:
- (a) the Network only, the emergency and/or incident will be managed according to the ARTC Incident Management and Emergency Response plan; or

- (b) Operations within RailCorp Rolling Stock on the Network, but that does not otherwise involve the Network, the emergency and/or incident will be managed according to the RailCorp Incident Management and Emergency Response plan; or
- (c) both ARTC's Network and RailCorp Rolling Stock on the Network, the emergency and/or incident will be managed according to the ARTC Incident Management and Emergency Response plan.

10.3 The party must notify the other party's relevant emergency contact in Schedule 5 as soon as possible if:

- (a) in the case of RailCorp, an emergency and/or incident relating to RailCorp Rolling Stock on the Network affects the Network; or
- (b) in the case of ARTC, an emergency and/or incident relating to the Network affects RailCorp's Rolling Stock.

10.4 ARTC must ensure that its Incident Management and Emergency Response plan for the Network is available to RailCorp and other parties who access the Network to ensure compliance by and cooperation from all parties.

10.5 RailCorp must ensure that its Incident Management and Emergency Response plan for Operations on the Network is available on request to ARTC.

## **11 Personnel**

11.1 RailCorp and ARTC must each ensure that:

- (a) the contents of this agreement are communicated to its relevant Personnel who operate on or around the Interfaces;
- (b) its Personnel who operate on or around the interfaces are familiar with the Network and any Network specific operating procedures;
- (c) its Personnel who perform New South Wales Rail Safety Work on or around Interfaces in New South Wales hold a New South Wales Certificate of Competence;
- (d) its Personnel who perform Queensland Rail Safety Work on or around Interfaces in Queensland have the competence to do so in accordance with section 87 of the Rail Safety Act (Qld);
- (e) its Personnel who perform Victorian Rail Safety Work on or around Interfaces in Victoria are competent to do so in accordance with regulation 39 of the Rail Safety Regulations (Vic);



- (f) its Personnel who operate on or around the Interfaces, are required to comply with the relevant Network Rules, Network Procedures, Network Local Appendix and operator specific procedures and the requirements set out in this agreement;
- (g) its Personnel who perform NSW Rail Safety Work on or around the Interfaces in New South Wales have been assessed as capable of performing their work and are compliant with the organisation's Drug and Alcohol Policy (in accordance with the requirements under the Rail Safety Act (NSW));
- (h) its Personnel who perform Queensland Rail Safety Work on or around the Interfaces in Queensland have been assessed as capable of performing their work and are compliant with the organisation's Drug and Alcohol Policy (in accordance with the requirements under the Rail Safety Act (Qld));
- (i) its Personnel who perform Victorian Rail Safety Work on or around the Interfaces in Victoria have been assessed as capable of performing their work and are compliant with the organisation's Drug and Alcohol Policy (in accordance with the requirements under the Rail Safety Act (Vic));
- (j) its Personnel who operate on or around the Interfaces wear appropriate personal protective equipment (PPE) and carry out all Operations safely; and
- (k) its Personnel comply with the organisation's Fatigue Management policies.

## **12 Compliance**

- 12.1 Each party will report annually to the other party, or at such other times that the parties may agree, on its progress in implementing agreed safety risk management measures for which it is responsible under this agreement.
- 12.2 Each party will report instances of non-compliance with this agreement to the other party. These will be dealt with in accordance with their internal procedures.
- 12.3 Where corrective actions are identified and agreed, they will be implemented to prevent recurrence and, if necessary noted in this agreement.

## **13 Communications and meetings**

- 13.1 Schedule 5 contains details of the parties' representatives for the purposes of this agreement, together with emergency contact details in the event of any accident or incident. The parties will promptly notify the other parties of any changes to personnel listed at Schedule 5.

## **14 Dispute Resolution**

- 14.1 Should a dispute arise between the parties in connection with this agreement, a party may issue a written notice of dispute to the other party.
- 14.2 Within 5 business days of receipt of a notice of dispute senior officers of each party will meet to discuss the dispute.
- 14.3 If the senior officers are unable to resolve the dispute, chief executive officers of the parties will meet within 5 business days to attempt to resolve the dispute.
- 14.4 If the chief executive officers of the parties are unable to resolve a dispute, the dispute will be referred to the Institute of Arbitrators & Mediators Australia for determination. The parties agree any such determination will be binding on them.
- 14.5 Meetings under this clause may be held by telephone.

## **15 Review of the Agreement**

- 15.1 The parties acknowledge that this agreement will require amendment and updates from time to time and agree that RailCorp may make amendments to this agreement in consultation with the other party.

## **16 Audit**

- 16.1 The parties acknowledge and agree that they are required to conduct regular safety audits under the terms of their accreditation.
- 16.2 The parties shall cooperate with each other in relation to any required rail safety regulatory audit, and provide information to the relevant state rail safety regulator as requested.

## **17 Jurisdiction of Agreement**

- 17.1 In respect of any matter arising under this agreement that the parties are required to submit to or otherwise resolve in a court of competent jurisdiction the parties submit to the jurisdiction of the court of the state in which the Interface relevant to the matter is located.

## EXECUTED AS AN AGREEMENT

<p><b>EXECUTED</b> for and on behalf of Rail Corporation New South Wales (ABN 59 325 778 353)</p> <p>by <b>Authorised signatory</b></p> <p>Signature: _____</p> <p>Printed name: _____</p> <p>Title: _____</p> <p>Date: _____</p>	<p><i>A. J. Gausden</i></p> <p>A. J. GAUSDEN</p> <p>GENERAL MANAGER, NETWORK ACCESS</p> <p>29 Sept '11</p>
<p>in the presence of <b>Witness</b></p> <p>Signature: _____</p> <p>Printed name: _____</p> <p>Title: _____</p> <p>Date: _____</p>	<p><i>Vazken Z. Yakinian</i></p> <p>VAZKEN Z. YAKINIAN</p> <p>ADMIN ASSISTANT</p> <p>29/11/2011</p>

<p><b>EXECUTED</b> for and on behalf of Australian Rail Track Corporation (ABN 75 081 455 754)</p> <p>by <b>Authorised signatory</b></p> <p>Signature: _____</p> <p>Printed name: _____</p> <p>Title: _____</p> <p>Date: _____</p>	<p><i>Sandra Wilson-Ruke</i></p> <p>Sandra Wilson-Ruke</p> <p>General Manager Risk &amp; Safety</p> <p>30.9.11</p>
<p>in the presence of <b>Witness</b></p> <p>Signature: _____</p> <p>Printed name: _____</p> <p>Title: _____</p> <p>Date: _____</p>	<p><i>Eric Dale</i></p> <p>Eric Dale</p> <p>Legal Counsel - Property</p> <p>30.9.11</p>

**SCHEDULE 1:**  
**Not used**

## **SCHEDULE 2:**

### **Interfaces:**

For the purposes of this agreement, the interface of Operations is as specified in the following, pursuant to which RailCorp has Access Rights to operate on the Network:

Rail Corporation New South Wales Main Line Access Agreement dated 3 September 2004 for access to ARTC's NSW and Victorian networks

Exchange of letter between RailCorp and ARTC dated 10 February 2006 governing access to ARTC's Victorian network

and as subsequently amended, varied, superseded, replaced or otherwise agreed from time to time

## **SCHEDULE 3:**

### **Risk Register**



# ARTC/RailCorp SIA Risk Review Sheet

Hazard

Cause

Consequence

Current Controls

ARTC

RailCorp

Other

## SECTION 1 - Derailment

H01 Derailment (cutting, tunnel, on bridge, on embankment, open track)

1 Train Over speeding

1 Rail vehicle leaves track striking infrastructure or object or fouling an adjacent line (potential for collision with rail vehicle on adjacent line)

1. ANTR 410 - Defective equipment including defective speedometers  
2. Advising of applicable speeds e.g. speedboards and TSRs  
3. Permanent and Temporary track speed signs fitted IAW ANSG 604 (and ARTC civil standards)  
4. Placing temporary speed signs IAW ANPR 713

TA44 - Incident Management Manual (sits in all control centres)

1. Familiarity with rule is ensured through compliance with TWP 108 (Roadknowledge)  
2. Driver compliance with Permanent and Temporary track Speed signs ( ANSG 604, ANPR 713)  
3. Weekly speed monitoring of Data logger and Hessler Tape ensure compliance with track speed  
4. Vigilance Control (VC) timing cycle linkage to train speed (driver incapacitation)  
5. Operator Enable Pedal (OEP) for incapacitation related overspeed  
6. Driver compliance with ANTR 410 (Defective Speed)

1. Emergency Services Response  
2. OMDT 440 Evacuation Ladders on XPT and XPL  
3. OSP 11 Train Evacuation and Derraining Passengers when not at stations  
4. Adherence with the Incident Response Plan

2 Track flooding lifts train from rails

1. CAN Rule (ANSG 206) NSW only - Reporting of hazards and driver compliance to CAN warning  
2. SAMMc - Code of Practice (Safe working rules outside of NSW)

TA44 - Incident Management Manual (sits in all control centres)

1. Driver reports Condition Affecting Network (ANSG 206 CAN)  
2. Driver reports hazards to NCO and submit Trip Report (TWP-100) Responsibilities of train crew

1. Emergency Services Response  
2. OMDT 440 Evacuation Ladders on XPT and XPL  
3. OSP 11 Train Evacuation and Derraining Passengers when not at stations  
4. Adherence with the Incident Response Plan

3 Track geometry fault

1. AK Car (Track Inspection Vehicle)  
2. Section 5 CoP - Infrastructure fault reporting  
3. C2008 - ARTC to confirm what this is  
4. CAN Rule (ANSG 206) NSW only - Reporting of hazards and driver compliance to CAN warning

TA44 - Incident Management Manual (sits in all control centres)

1. Driver reports Condition Affecting Network (ANSG 206 CAN)  
2. Driver reports hazards to NCO and submit Trip Report (TWP-100) Responsibilities of train crew

1. Emergency Services Response  
2. OMDT 440 Evacuation Ladders on XPT and XPL  
3. OSP 11 Train Evacuation and Derraining Passengers when not at stations  
4. Adherence with the Incident Response Plan

4 Item becomes dislodged (drops) from operating train

1. Route Access Standard (RAS) defines minimum requirement for trains operating on network - currently TOC  
2. ARTC Addendum to CoP Section 6 Crossing and Passing procedures (outside NSW)

TA44 - Incident Management Manual (sits in all control centres)

1. Driver reports Condition Affecting Network (ANSG 206 - CAN)  
2. Train preparation and maintenance is accordance with MDT 400 Minimum Operating Standards - Explorer and 48C 030 Minimum Operating Standards - 48class ensuring rolling stock is fit for purpose before entering service  
3. Drivers maybe required to do roll by inspectors of other trains (Need to determine whether this is defined)  
4. Driver reports hazards to NCO and submit Trip Report (TWP-100) Responsibilities of train crew  
5. Comply with requirements of RAS/TOC

1. Emergency Services Response  
2. OMDT 440 Evacuation Ladders on XPT and XPL  
3. OSP 11 Train Evacuation and Derraining Passengers when not at stations  
4. Adherence with the Incident Response Plan

5 Damaged/broken rail

1. Ultrasonic Inspections  
2. Routine track patrols  
3. Train Control Reporter (driver report)

TA44 - Incident Management Manual (sits in all control centres)

1. Driver reports Condition Affecting Network (ANSG 206 CAN)  
2. Driver reports hazards to NCO and submit Trip Report (TWP-100) Responsibilities of train crew

1. Emergency Services Response  
2. OMDT 440 Evacuation Ladders on XPT and XPL  
3. OSP 11 Train Evacuation and Derraining Passengers when not at stations  
4. Adherence with the Incident Response Plan

6 Rail substructure failure

1. Geotech design standards  
2. Routine inspections  
3. Temporary Speed Restriction - centres  
4. Rail stress detectors  
5. Rock fall and landslip detection

TA44 - Incident Management Manual (sits in all control centres)

1. Driver reports Condition Affecting Network (ANSG 206 CAN)  
2. Driver reports hazards to NCO and submit Trip Report (TWP-100) Responsibilities of train crew

1. Emergency Services Response  
2. OMDT 440 Evacuation Ladders on XPT and XPL  
3. OSP 11 Train Evacuation and Derraining Passengers when not at stations  
4. Adherence with the Incident Response Plan



# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls			
			ARTC	RailCorp	Other	
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)
7	Incorrect routing of train during degraded operations - refer to below			T444 - Incident Management Manual (sits in all control centres)	1. Compliance with ANSG 606 (Responding to Signal Indications) ensures train speed is commensurate with the route set. 2. Familiarity with route is ensured through compliance with TVMP 106 (Roadknowledge)	1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detraining Passengers when not at stations 4. Adherence with the Incident Response Plan
8	Incorrect routing of train during non-signalled areas - refer to below			T444 - Incident Management Manual (sits in all control centres)		1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detraining Passengers when not at stations 4. Adherence with the Incident Response Plan
9	Rollingstock bogiewheel fault/dragging equipment		1. Route Access Standard (RAS) defines minimum requirement for trains operating on network - currently, TOC 2. Drag detectors 3. Hot box detectors/Rail Bearing Acoustic Monitors (BAM) 4. ANTR412 - Defective Running Gear (includes rules for defective wheels)	T444 - Incident Management Manual (sits in all control centres)	1. Reduction of train speed mandated if train has Defective Wheels TVMP 136 2. Reduction of train speed mandated if train has Defective Air Spring TVMP 134 3. Identification of faults is communicated to affected parties allowing corrective action to be taken TVMP 118 - Reporting Faults 4. Compliance with 48C 030 Minimum Operating Standards - 48class and MDT 400 Minimum Operating Standards - Explorer ensuring rolling stock is fit for purpose before entering service and XPT 5. Compliance with ANTR412 - Defective Running Gear 6. All Rollingstock subject to routine maintenance cycle	1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detraining Passengers when not at stations 4. Adherence with the Incident Response Plan
10	Turnout irregularly (functional failure of equipment)		1. Routine inspections 2. Speed restrictions applied for equipment with specific defects 3. AK Car (Track inspection vehicle) 4. Section 5 CoP - Infrastructure fault reporting 5. C2009 - ARTC to confirm what this is 6. CAN Rule (ANSG 206) NSW only - Reporting of hazards and driver compliance to CAN warning 7. Signal design standards minimise potential for irregularities	T444 - Incident Management Manual (sits in all control centres)		1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detraining Passengers when not at stations 4. Adherence with the Incident Response Plan
11	Signal Passed at Danger (SPAD) leading to catch points.		1. Network Rule (ANSG 606) - Driver response to signals and signs 2. Network Rule (ANSG 608) - Procedures for drivers passing signals at stop 3. RfCOD with signalling approach locking (as per standards)	T444 - Incident Management Manual (sits in all control centres)	Compliance with Passing signals at STOP rule and procedure, ANSG 608 and ANPR 746 OSP 5 (Train Crew Duties if passing a signal at STOP)	1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detraining Passengers when not at stations 4. Adherence with the Incident Response Plan
12	Train hits object on track		1. Routine inspection of track and rail corridor 2. CAN warning (ANSG 206)	T444 - Incident Management Manual (sits in all control centres)	1. Driver reports Condition Affecting Network (ANSG 206 CAN) 2. Driver reports hazards to NCO and submit Trip Report (TWP-100) Responsibilities of train crew	1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detraining Passengers when not at stations 4. Adherence with the Incident Response Plan

# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC	RailCorp		Other	
	13 Overloaded/incorrectly loaded train		<b>Preventative (Cause)</b> 1. ARTC specifies Infrastructure load limits 2. TOC waiver process for new/modified wagons	<b>Mitigative (Consequence)</b> T444 - Incident Management Manual (sits in all control centres)	<b>Preventative (Cause)</b> 1. Compliance with TOC loading requirements	<b>Mitigative (Consequence)</b> 1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detaining Passengers when not at stations 4. Adherence with the Incident Response Plan	
	14 Severe weather (train blown off track)		1. CAN warning (ANGE 206)	T444 - Incident Management Manual (sits in all control centres)	1. Driver reports Condition Affecting Network (ANGE 206 CAN) 2. Driver reports hazards to NCO and submit Trip Report (TVP100 - Responsibilities of train crew) 3. Driver responds to CAN	1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detaining Passengers when not at stations 4. Adherence with the Incident Response Plan	
	15 Train integrity management (acceleration/deceleration - poor driving)			T444 - Incident Management Manual (sits in all control centres)	1. Familiarity with route is ensured with compliance with TWP 108 (Roadknowledge) 2. Train crews are competent to drive as required (generic assumptions)	1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detaining Passengers when not at stations 4. Adherence with the Incident Response Plan	
	16 Incorrect marshalling and loading principles		1. TOC manual defines high level requirements	T444 - Incident Management Manual (sits in all control centres)	1. Compliance with TOC manual requirements 2. Freight loading manual (FISS) loading code of practice)	1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detaining Passengers when not at stations 4. Adherence with the Incident Response Plan	
	17 Incorrectly sign posted speeds		1. Standards provide rigid process for determining appropriate speed around curves (e.g. ESC 210 TRACK GEOMETRY AND STABILITY - RailCorp only)	T444 - Incident Management Manual (sits in all control centres)		1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detaining Passengers when not at stations 4. Adherence with the Incident Response Plan	
	18 Track buckle		1. Use of: - Welded track stability (TEP 09) - Continuously welded rail (CWR) - Concrete sleepers 2. Imposition of WOLO speeds during extreme weather	T444 - Incident Management Manual (sits in all control centres)	1. Driver compliance with WOLO speeds during extreme weather 2. Driver reports Condition Affecting Network ANGE 206 CAN	1. Emergency Services Response 2. OMDT 440 Evacuation Ladders on XPT and XPL 3. OSP 11 Train Evacuation and Detaining Passengers when not at stations 4. Adherence with the Incident Response Plan	
	19 Embankment collapse	See H20	See H20	See H20	See H20	See H20	See H20
<b>SECTION 2- Immobilised train</b>							
1902	Immobilised train in rail corridor	1 Delay to service	1. Network Rules and Procedures (ANTR 402 - Inspecting Trains) 2. TOC manual defines high level requirements	Network Rules and Procedures (ANTR 400 - Train Protection, ANTR 426 - Overhaul Trains)	1. Train preparation and maintenance is accordance with MDT 400 Minimum Operating Standards - Explorer and 480 030 Minimum Operating Standards - 48 class ensuring rolling stock is fit for purpose before entering service 2. Compliance with ANTR 402 - Inspecting Trains	1. Procedures for fault finding 2. OSP 11 - Evacuating Passengers from train not at station	
	2 Line blocked	2 Detaining into live rail corridor	1. Network Rules and Procedures (ANTR 400 - Train Protection)	T444 - Incident Management Manual (sits on all control centres)			



# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls			
			ARTC		RailCorp	
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)
3 Signal failure		3 Heat related incidents for passengers on train if kept on track for a prolonged period of time (e.g. air-conditioning not available)	1. Network Rules and Procedures (ANSO 608 - Passing Signals at stop)	1. T444 - Incident Management Manual (sits on all control centres) 2. ANGE 512 - Manual Block Working	Compliance with Passing signals at STOP rule and procedure, ANSO 608 and ANPR 746 OSP 5 (Train Crew Duties if passing a signal at STOP)	
4 Track failure			1. Network Rules and Procedures (ANGE 220 - Procedures for Unreliable track circuits)	T444 - Incident Management Manual (sits on all control centres)	Compliance with Passing signals at STOP rule and procedure, ANSO 608 and ANPR 746 OSP 5 (Train Crew Duties if passing a signal at STOP)	
5 Incident on track			1. Network Rules and Procedures (ANTR 400 - Train Protection)	T444 - Incident Management Manual (sits on all control centres)	1. Driver reports Condition Affecting Network (ANGE 206 - CAN) 2. Driver reports hazards to NCO and submit Trip Report (TWP100 - Responsibilities of train crew)	
6 Flooding		1 Delay to service	1. Network Rules and Procedures (ANGE 206 - CAN)	T444 - Incident Management Manual (sits on all control centres)	1. Driver reports Condition Affecting Network (ANGE 206 - CAN) 2. Driver reports hazards to NCO and submit Trip Report (TWP100 - Responsibilities of train crew)	
7 Bushfire		2 Passengers exposed to Hazardous environment	Network Rules and Procedures (ANGE 206 - CAN)	T444 - Incident Management Manual (sits on all control centres)	1. Driver reports Condition Affecting Network (ANGE 206 - CAN) 2. Driver reports hazards to NCO and submit Trip Report (TWP100 - Responsibilities of train crew)	
8 Poor visibility (fog, smoke)		3 Derailing into rail corridor	1. Network Rules and Procedures (ANGE 232 - Responsibility of train crew and track vehicle crews) 2. Network Rules and Procedures (ANGE 206 - CAN)		Driving to prevailing conditions (ANGE 232)	
9 Incident in proximity to rail line			1. Network Rules and Procedures (ANGE 206 - CAN) 2. Corridor protection		1. Driver reports Condition Affecting Network (ANGE 206 - CAN) 2. Driver reports hazards to NCO and submit Trip Report (TWP100 - Responsibilities of train crew)	
10 Passenger on train incident requiring train to stop				1. Network Rules and Procedures (ANTR 400 - Train Protection, ANTR 426 - Overdue Trains) 2. T444 - Incident Management Manual (sits on all control centres)		Procedure for responding to a medical emergency on a train (OSP 13)
11 Safe working breach (requiring train crew relief)			1. Network Rules and Procedures (ANGE 232 - Responsibility of train crew and track vehicle crews) 2. Network Rules and Procedures (ANGE 234 - Responsibility of Signaller, ANGE 236 - Responsibility of train controllers)			Train Crew comply with OSP 4 - Train Crew duties if the limit of authority is overrun.
12 Bomb threat (infrastructure or train)			Emergency procedure in the event of a bomb threat - HRO/PL 010	T444 - Incident Management Manual (sits on all control centres)		Train crew follow procedures in the Countrylink emergency response plan
13 Train Crew incapacitation					Application of category 1 National health standards for drivers	Train crew follows the procedures in TWP 154 (Responding to an incapacitated Driver or PSS)

# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC	RailCorp			
H03	Immobilised train in tunnel	1 Causes as per Immobilised train in rail corridor	<b>Preventative (Cause)</b> Network Rules and Procedures (ANGE 206 - CAN)	<b>Mitigative (Consequence)</b> 1. Network Rules and Procedures (ANTR 400 - Train Protection, ANTR 426 - Overdue Trains) 2. T444 - Incident Management Manual (sits on all control centres) 3. Local Appendix Units - Specific requirements for equipment to be carried	<b>Preventative (Cause)</b> As per Immobilised train in rail corridor	<b>Mitigative (Consequence)</b> Compliance with procedure for excessive exhaust fumes in tunnels OMDT 452	
H04	Immobilised train on bridge	1 Causes as per Immobilised train in rail corridor	Network Rules and Procedures (ANGE 206 - CAN)	1. Network Rules and Procedures (ANTR 400 - Train Protection, ANTR 426 - Overdue Trains) 2. T444 - Incident Management Manual (sits on all control centres) 3. Local Appendix Units - Specific requirements for equipment to be carried	As per Immobilised train in rail corridor	Carriage of freight compatible emergency couplings	
<b>SECTION 3 - Incompatibility between infrastructure and rail vehicle</b>							
H05 Incompatibility between platform infrastructure and rail vehicle	1 Rail infrastructure differences (Currently there is no stopping at short platforms which are not owned by RailCorp)	1 Doors open off platform (passengers exit into rail corridor)	Structure gauge and Rolling stock clearance outline standards and assessment against these		Country/Link trains are not timetable to STOP at short platforms		
	2 Out of gauge platforms (not ones that Country link stop at)	2 Train strikes platform (Damage to train, damage to Platform, train or debris strike passengers on platform)	Structure gauge assessment against this (Network Alteration Notice - N/A/N)				
	3 Different platform heights relative to rail head (Rail head location could move with time)	1 Passenger falls while boarding/alighting train	<b>ARTC controls are yet to be defined</b>	Engineering Standard - Stations and Buildings - Station Design Standard Requirements (RailCorp stations only) is relevant to the design of new, as well as the refurbishment and upgrade of existing, stations for RailCorp.			
	4 Lateral track movement (e.g. re aligned during maintenance activity, track movement from train running)	1 Train strikes platform (Damage to train, damage to Platform, train or debris strike passengers on platform)	1. Track maintenance standards 2. Kinematic envelope and allowances (uses tolerance as a safety margin)	1. Driver reports Condition Affecting Network (ANGE 206 - CAN) 2. Driver reports hazards to NCO and submit Trip Report (TWP100 - Responsibilities of train crew)			
	5 Infrastructure modified without prior notification		Structure gauge assessment against this (Network Alteration Notice - N/A/N)				
<b>SECTION 4 - Loss of separation between rail lines and road vehicles</b>							

## SECTION 3 - Incompatibility between infrastructure and rail vehicle

H05	Incompatibility between platform infrastructure and rail vehicle	1 Rail infrastructure differences. Currently there is no stopping at short platforms which are not owned by RailCorp	1 Doors open off platform (passengers exit into rail corridor)	Structure gauge and Rolling stock clearance outline standards and assessment against these		Country/Link trains are not timetable to STOP at short platforms	
	2 Out of gauge platforms (not ones that Country link stop at)	2 Train strikes platform (Damage to train, damage to Platform, train or debris strike passengers on platform)	1 Train strikes platform (Damage to train, damage to Platform, debris strike passengers on platform)	Structure gauge assessment against this (Network Alteration Notice - NAN)			
	3 Different platform heights relative to rail head (Rail head location could move with time)	1 Passenger falls while boarding/alighting train	ARTC controls are yet to be defined			Engineering Standard - Stations and Buildings - Station Design Standard Requirements (RailCorp stations only) is relevant to the design of new, as well as the refurbishment and upgrade of existing, stations for RailCorp	
	4 Lateral track movement (e.g. re aligned during maintenance activity, track movement from train running)	1 Train strikes platform (Damage to train, damage to Platform, train or debris strike passengers on platform)	1. Track maintenance standards 2. Kinematic envelope and clearance (uses tolerance as a safety margin)			1. Driver reports Condition Affecting Network (ANGE 206 - CAN) 2. Driver reports hazards to NCO and submit Trip Report (TWP100 - Responsibilities of train crew)	
	5 Infrastructure modified without prior notification		Structure gauge assessment against this (Network Alteration Notice - NAN)				

## SECTION 4 - Loss of separation between rail traffic and road vehicle

H06	Loss of separation between rail traffic and road vehicle at public level crossing (active protection)	1 Leave crossing fails to activate, or shortened warning time on approach of train - Train over speeding (due to missing signage on track, or driver behaviour) - Failure of level crossing predictor or other signalling equipment relating to operation of level crossing	1 Potential collision between rail traffic and road vehicle	1. Design and maintenance standards 2. Network Rules (ANSO 606 - Responding to Signals and Signs) 3. Network Rules (ANGE 216 - Level Crossings, ANGE 218 - Type F Level crossings) 4. ANPR 7/15 Manual operation of level crossings 1. Network Rules (ANGE 206 & 216) 2. Remote monitoring of level crossing equipment operation and failure (Cerberus, Broderick, Sears) 3. Level Crossing maintenance		1. Train driver Observance of track side signs (compliance with ANGE 216) 2. Train driver Observance of track speed signs (compliance with ANSO 604) 3. Train driver reports Condition Affecting Network (ANGE 206 CAN)	
	2 Defective level crossing equipment						



# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC	RailCorp		Other	
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)	
	3 Road Motor Vehicle grounds on level crossing		1. Road crossing surface standards 2. ID and contact number for network control centre on all level crossings 3. Notification of problem to train - Emergency broadcast Design standards for level crossing Design standards for level crossing		Respond to notification from ARTC Network control centre Respond to notification from ARTC Network control		
	4 Level crossing exit blocked due to short stalling		Signalling Standard		ANSG 608 - Passing Signal at Stop		
	5 Level crossing exit blocked due to queuing back across level crossing		1. ID and contact number for network control centre on all level crossings 2. Notification of problem to train - Emergency broadcast 1. ID and contact number for network control centre on all level crossings 2. Notification of problem to train - Emergency broadcast		CAN Rule (ANSG 206) NSW only - Reporting of hazards and driver compliance to CAN warning CAN Rule (ANSG 206) NSW only - Reporting of hazards and driver compliance to CAN warning		
	6 Rail vehicle SPADs signal in proximity to level crossing						
	7 Motor vehicle breaks down on level crossing						
	8 Motor vehicle incident/accident leaves (vehicle/s) stranded on level crossing						
	9 Road motor vehicle driver violates level crossing protocols (Driver does not intend to stop)						
	10 Road motor vehicle overshoots level crossing stop point (Driver intends to stop) - Substandard level crossing condition - Poor line of sight for road motor vehicle driver of level crossing - Loss of RMV situational awareness		1. Level crossing interface agreement with road owners (maintenance responsibilities) 2. Maintenance to maintain adequate line of sight				
	11 Car intentionally parked on level crossing (Mental health disposition)		None	None	None	None	None
+10/7 Loss of separation between rail traffic and road vehicle at public level crossing (passive protection)	1 Train Over speeding (due to missing signage on track or driver behaviour)	1 Potential collision between rail traffic and road vehicle.	Reduced line speeds set due to poor line of sight for road user		1. Driver reports Condition Affecting Network (ANSG 206 - CAN) 2. Ensure Compliance of track speeds by weekly speed monitoring of Data logger and Hessler Tape		
	2 Defective level crossing equipment (e.g. signage)		Level crossing interface agreement with road owners (maintenance responsibilities)	None	Driver reports hazards to NCO and submit Trip Report (TWP100 - Responsibilities of train crew) (refer Mississ)		
	3 Road Motor Vehicle grounds on level crossing		None	None	None	None	None
	4 Level crossing exit blocked due to short stalling		None	None	None	None	None
	5 Level crossing exit blocked due to queuing back across level crossing		None	None	None	None	None
	6 Motor vehicle breaks down on level crossing		None	None	None	None	None
	7 Motor vehicle incident/accident leaves vehicle(s) stranded on level crossing		T A44 - Incident Management Manual (sits on all control centres) T A44 - Incident Management Manual (sits on all control centres)		CAN Rule (ANSG 206) NSW only - Reporting of hazards and driver compliance to CAN warning CAN Rule (ANSG 206) NSW only - Reporting of hazards and driver compliance to CAN warning		
	8 Road motor vehicle driver violates level crossing protocols (Driver does not intend to stop)		None	None	None	None	None

# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC		RailCorp		Other
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)	
	9 Road motor vehicle overshoots level crossing stop point (Driver intends to stop): - Substandard level crossing condition - Poor line of sight for road motor vehicle driver of level crossing - Loss of R/MV situational awareness - road signage missing		None	None	None	None	None
	10 Car intentionally parked on level crossing (Mental health disposition, intended sabotage)		None	None	None	None	None
H08 Loss of separation between rail traffic and road vehicle in rail corridor	1 Lack of rail corridor fencing enables road vehicle to enter rail corridor	1 Potential collision between rail traffic and road vehicle.			Driver reports Condition Affecting Network (ANGE 206 - CAN)		
	2 Loss of control of road vehicle (vehicle enters rail corridor)				Driver reports hazards to NCO and submit Trip Report (TWP-100 - Responsibilities of train crew)		
	3 Car intentionally parked across tracks (Mental health disposition, intended sabotage)		None	None	None	None	None
	4 Vehicle in worksite - driver fails to acknowledge proximity of rail vehicle		1. Network Rules (ANWT 300 - Planning Work) 2. Worksite protection 3. Pre-work briefing 1. ARTC induction (On Track - track safety awareness) 2. Worksite protection 3. Pre-work briefing				
	5 Vehicle parked foul of running line		1. Network Rules (ANWT 300 - Planning Work) 2. Worksite protection 3. Pre-work briefing				
	6 Vehicle strays out of worksite protected area		1. Network Rules (ANWT 300 - Planning Work) 2. Worksite protection 3. Pre-work briefing				
	7 Use of unmarked services/informal crossings		1. Network rules (ANWT 308 - Control Signal Blocking) 2. Worksite protection				
	8 Loss of control of road vehicle in proximity to track		None	None	None	None	None
<b>SECTION 5 - Loss of separation between rail vehicles</b>							
H09 Loss of separation between rail vehicles (on bridge, on embankment, on open track, in tunnel or vehicles in cutting)	1 Runaway train/vehicle (emergency braking fails on separated train)	1 Collision with other rail vehicle or infrastructure due to track infrastructure (see derailment above)	1. CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning 2. Network Rules and Procedures (ANTR 402 - Inspecting Trains) 3. Network Rules and Procedures (ANTR 404 - Using Train Brakes) 4. Network Rules and Procedures (ANTR 412 - Defective Running Gear) 5. TOC and RAS (Maximum train loads, loading gauge, inspections etc.,) 6. Siding interface agreements address siding risks and responsibilities	CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning	1. Train preparation and maintenance is accordance with OMDT 400 Minimum Operating Standards Explorer and 48C 030 Minimum Operating Standards 2. 48 class ensuring rolling stock is fit for purpose before entering service Rollingstock design standard (application of brake on separation of train)		

# ARTC/RailCorp SIA Risk Review Sheet

Hazard

Cause

Consequence

Current Controls

ARTC

RailCorp

Other

2 Driver incapacitation

**Preventative (Cause)**  
ANTR 410 - Defective Safety Systems

**Mitigative (Consequence)**

**Preventative (Cause)**

**Mitigative (Consequence)**

3 Out of gauge train passes train on adjacent track

TOC (TA02 VIC)

1. Train is prepared in accordance with TOC  
2. OMDT 400 - MIN Standards  
3. ANTR 402 - Pre Train Inspection  
TOW (identifies use of Track circuit shorting clips)

4 Train derailed on another line (moved outside of the line kinematic envelope)

1. CAN Rule (ANSY 206) NSW only - Reporting of hazards and driver compliance to CAN warning  
2. Network Rules and Procedures (ANTR 400 - Train Protection)  
3. Interface agreements for parallel lines (Interface Protocols between parties e.g. SSFL)  
4. TOC (identifies need for Track circuit shorting clips)

5 Wrong side signaling system failure  
- e.g. incorrect signal aspect

1. Network Rules (ANSY 512 - Block Working)  
2. Network Rules (ANSY 514 - SPA Working)  
3. Network Rules (ANSY 516 - Pilot Staff Working)  
4. Network Rules (ANSY 518 - Suspending a system of safe working)  
5. Network Rules and Procedures (ANSY 608 - Passing Signals at stop)  
6. Network Rules - ANSG 606 - Driver to respond to illegal signal indication  
7. Signal Engineering Standards for design testing and maintenance

1. Driver Compliance to ANSG 606 Responding to an illegal signal indication  
2. Driver Compliance to ANSG 606 Passing Signals at Stop

6 Failure of degraded modes of safe working arrangements in the rail corridor (including communications)

1. Network Rules (ANSY 512 - Block Working)  
2. Network Rules (ANSY 514 - SPA Working)  
3. Network Rules (ANSY 516 - Pilot Staff Working)  
4. Network Rules (ANSY 518 - Suspending a system of safe working)

1. Driver Compliance with procedures Block working in ANSY 512  
2. Driver Compliance with procedures Pilot staff working in ANSY 516  
3. Driver Compliance with procedures Special proceed authority ANSY 514  
Driver Compliance with ANSY 518

7 Signal passed at danger (SPAD)

1. Network Rules (ANSY 608)  
2. SP-03-12 SPAD management  
3. Train Control SPAD alarm  
4. Effective communications  
5. ANRP 746 - (Authorising Rail traffic to pass an absolute signal at stop)

Compliance with Passing signals at STOP rule and procedure, ANSG 608 and ANRP 746 OSP 5 Train Crew Duties if passing a signal at STOP

Note: ARTC have a SPAD Hazard Management program



# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls			
			ARTC	RailCorp	Mitigative (Consequence)	Other
	8 Worksite rail vehicle strays out of worksite (exceeds authority)		<b>Preventative (Cause)</b> 1. Network Rules (ANWT 300 - Planning Work in the Rail Corridor) 2. Worksite protection (ANWT 314 - Work Trains, ANWT 316 - Track Vehicles, ANPR 711 - Lookouts, ANPR 710 - Piloting Trains and Track Vehicles) 3. Pre-work briefing 1. Engineering maintenance and inspection standards 2. Network Rules (ANGE 220 - Track Circuits) 3. ESD-32-01 (Signalling Rollingstock Interface) Compliance with procedures for RVD in ANSY 500 Compliance with procedures electric Staff in ANSY 504 Compliance with procedures staff and ticket ANSY 506 Compliance with procedures train order ANSY 502 Engineering Control - GPS watch dog for TMCS Compliance with procedures electric Staff in ANSY 504 Compliance with procedures staff and ticket ANSY 506 Signal Engineering Standards	<b>Preventative (Cause)</b> Driver Compliance with procedures for RVD in ANSY 500 Driver Compliance with procedures electric Staff in ANSY 504 Driver Compliance with procedures staff and ticket ANSY 506 Driver Compliance with procedures train order ANSY 502	<b>Mitigative (Consequence)</b> 1. Compliance with ESD-32-01 (Signalling Rollingstock Interface) 2. Train Maintenance Standards	
	9 Track circuit fails to detect train - Lack of detection on a track circuit (especially if train separates - normally freight trains)			1. Compliance with ESD-32-01 (Signalling Rollingstock Interface) 2. Train Maintenance Standards		
	10 Safe working breach incorrect train order, authority issued in error		Compliance with procedures for RVD in ANSY 500 Compliance with procedures electric Staff in ANSY 504 Compliance with procedures staff and ticket ANSY 506 Compliance with procedures train order ANSY 502 Engineering Control - GPS watch dog for TMCS Compliance with procedures electric Staff in ANSY 504 Compliance with procedures staff and ticket ANSY 506 Signal Engineering Standards	Driver Compliance with procedures for RVD in ANSY 500 Driver Compliance with procedures electric Staff in ANSY 504 Driver Compliance with procedures staff and ticket ANSY 506 Driver Compliance with procedures train order ANSY 502		
	11 - Safe working breach - taking incorrect token for section, exceeding authority		Compliance with procedures electric Staff in ANSY 504 Compliance with procedures staff and ticket ANSY 506 Signal Engineering Standards	Driver Compliance with procedures electric Staff in ANSY 504 Driver Compliance with procedures staff and ticket ANSY 506		
	12 Track moves off survey alignment (compromises clearance with adjacent track)		Engineering standards (Track geometry, mechanised inspections e.g. AK Car (Track inspection vehicle)) Route Planning and Network Control	CAN Rule - Warning to driver for track condition Familiarity with route is ensured with Compliance with TWP 108 (Roadknowledge) Compliance with ANSG 606 responding to signal indications ensuring train speed is commensurate with the route set.	CAN Rule - Driver reports rough riding	Clarification required for this item
	13 Misrouting of train during shunting operation					
<b>SECTION 6 - Loss of structural integrity</b>						
H10 Loss of structural integrity of structure over track	1 Mechanical Failure, Ineffective maintenance, Fatigue failure, Environmental damage Poor Design, Third party construction activity in close proximity	1 Bridge structural failure, debris falls onto track - Track Blocked - Delay to service Damage to rail vehicle	Third Party arrangement and interface agreements Engineering design testing and maintenance standards TOC / RAS (Operating requirements for Rollingstock e.g. overloading)	CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning Train preparation and maintenance is accordance with OMOT 400 Minimum Operating Standards - Explorer and 48C 030 Minimum Operating Standards - 48 class ensuring rolling stock is fit for purpose before entering service CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning	1. Driver reports Condition Affecting Network ANGE 206 CAN 2. Driver reports hazards to NCO and submit Trip Report (TWP100) Responsibilities of train crew	Operator standards, road worthiness of vehicle
H11 loss of structural integrity of train	2 Mechanical Failure, Ineffective maintenance, Fatigue failure, Poor Design, Overloading	1 Derailment	TOC / RAS (Operating requirements for Rollingstock e.g. overloading)	CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning Train preparation and maintenance is accordance with OMOT 400 Minimum Operating Standards - Explorer and 48C 030 Minimum Operating Standards - 48 class ensuring rolling stock is fit for purpose before entering service CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning	1. Driver reports Condition Affecting Network ANGE 206 CAN 2. Driver reports hazards to NCO and submit Trip Report (TWP100) Responsibilities of train crew	Operator standards, road worthiness of vehicle
H12 Loss of structural integrity at station (None RailCorp) (Platform structures and structures on the platform)	3 Flooding Washaway Embankment failure Geotech at risk areas Poor design of structure Ineffective or no Maintenance Design Fatigue Failure Vandalism	2 Damage to rail vehicle	1. Third Party arrangement and interface agreements 2. Engineering design testing and maintenance standards 3. Structural clearances standards 4. Maintenance Service Schedule (TMP) Asset listing	CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning Train preparation and maintenance is accordance with OMOT 400 Minimum Operating Standards - Explorer and 48C 030 Minimum Operating Standards - 48 class ensuring rolling stock is fit for purpose before entering service CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning	1. Driver reports Condition Affecting Network ANGE 206 CAN 2. Driver reports hazards to NCO and submit Trip Report (TWP100) Responsibilities of train crew	Station owner
H13 loss of structural integrity on network	4 Earthquake Tsunami	3 Train immobilised				

# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC		RailCorp		Other
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)	
H14 Loss of structural integrity of tunnel	5 Washaway Geotech at risk areas Poor design of structure Under track mining Design Fatigue Failure		1. Third Party arrangement and interface agreements 2. Engineering design testing and maintenance standards 3. Structural clearances standards 4. Maintenance Service Schedule (TWP) 5. Asset listing		CAN Rule (ANZG 206) NSW only - Reporting of hazards and driver compliance to CAN warning Temporary Speed ANPR 713	1. Driver reports Condition Affecting Network ANZG 206 CAN 2. Driver reports hazards to NCO and submit Trip Report (TWP100) Responsibilities of train crew	
H15 Loss of structural integrity of underbridge	6 Flooding Washaway Abutment failure Geotech at risk areas Poor design of structure Design Fatigue Failure Overloading (includes Axel Overloading) Use exceeding design capability - bridge (axle loading resulting in deterioration of asset) Road vehicle collision with bridge		1. Third Party arrangement and interface agreements 2. Engineering design testing and maintenance standards 3. Structural clearances standards 4. Maintenance Service Schedule (TWP) 5. Asset listing 6. ANRP 713 Temporary Track Speeds		CAN Rule (ANZG 206) NSW only - Reporting of hazards and driver compliance to CAN warning Temporary Speed ANPR 713	1. Driver reports Condition Affecting Network ANZG 206 CAN 2. Driver reports hazards to NCO and submit Trip Report (TWP100) Responsibilities of train crew	Emergency Services
H16 Loss of structural integrity of overbridge	7 Use exceeding design capability - bridge (axle loading resulting in deterioration of asset) 8 Flooding Washaway Embankment and Abutment failure Geotech at risk areas Poor design of structure Design Fatigue Failure Train collision with bridge Road Vehicle collision on bridge		Interface Agreement 1. Third Party arrangement and interface agreements 2. Engineering design testing and maintenance standards 3. Structural clearances standards 4. Maintenance Service Schedule (TWP) 5. Asset listing		CAN Rule (ANZG 206) NSW only - Reporting of hazards and driver compliance to CAN warning	1. Driver reports Condition Affecting Network ANZG 206 CAN 2. Driver reports hazards to NCO and submit Trip Report (TWP100) Responsibilities of train crew	RTA
H17 Loss of structural integrity of OHW (out of scope see separate interface agreement)	9 Use exceeding design capability - bridge (axle loading resulting in deterioration of asset) 10 Use exceeding design capability - bridge (axle loading resulting in deterioration of asset)		Interface Agreement				
H18 Loss of structural integrity of Track	11 Flooding Washaway Embankment failure Geotech at risk areas Poor design of track Under track mining Defective Rail (Manufacturing defect, Sleeper Defect) Defective Rollingstock Vehicle Overloading Poor Train Management Fire Train Overspeed		1. Third Party arrangement and interface agreements 2. Engineering design testing and maintenance standards 3. Structural clearances standards 4. Maintenance Service Schedule (TWP) 5. Asset listing 6. AK Car (Track Inspection Vehicle) 7. Ultrasonic Inspection 8. Track Inspection 9. TOC / RAS Manual		1. Driver adherence to ANSG 604 - Responding to signals and signs 2. Temporary Speed ANPR 713 3. Train preparation and maintenance is accordance with MDT 400 Minimum Operating Standards - Explorer and 48C 030 Minimum Operating Standards - 48class ensuring rolling stock is fit for purpose before entering service 4. ANTR412 - Driver responds to defective equipment on train 5. Compliance with TWP 6. Operator planning for compatibility with Network via TOC or RAS	1. Driver reports Condition Affecting Network ANZG 206 CAN 2. Driver reports hazards to NCO and submit Trip Report (TWP100) Responsibilities of train crew	Australian Standard
H19 Loss of structural integrity of third party services (e.g. gas main)	12 Use exceeding design capability - track 13 Defective wheels 14 Work in the rail corridor 15 Rail integrity		Bounded by H01 - Derailment Australian Standards Interface Agreement		Train preparation and maintenance is accordance with MDT 400 Minimum Operating Standards - Explorer and 48C 030 Minimum Operating Standards - 48class ensuring rolling stock is fit for purpose before entering service	1. Driver reports Condition Affecting Network ANZG 206 CAN 2. Driver reports hazards to NCO and submit Trip Report (TWP100) Responsibilities of train crew	Australian Standard



# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC		RailCorp		
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)	
SECTION 7 - Object/Infrastructure in path of rail vehicle							
H20 Object/Infrastructure in path of rail vehicle (in tunnel, at station, in rail corridor)	1 Object from platform falls onto track (person initiated)	1 Collision with object - potential derailment (refer to derailment)	1. ANWT300 Planning work in the rail corridor 2. Interface agreements between Station and ARTC	1. T444 - Incident Management Manual (sits on all control centres) 2. CAN rule (ANGE 206 - NSW only) requires obstructions to be reported by train crews		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Station owner
	2 Items maliciously left on track (ballast, shopping trolleys, sleepers)	2 Damage to rail vehicle		T444 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
	3 Items maliciously dropped/suspended from bridges	3 Immobilised rail vehicle	1. Interface agreements between Bridge and ARTC 2. Bridge screening (if fitted)	T444 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
	4 Fallen tree on track			1. T444 - Incident Management Manual (sits on all control centres) 2. CAN rule (ANGE 206 - NSW only) requires obstructions to be reported by train crews		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
	5 Embankment subsidence		1. Slip detection 2. TMP for tech management plan 3. LAU 4. Inspection 5. Geotech design, inspection, TSRS (Rule ANSG 604), rail stress detectors, rock fall and landslip detection	1. T444 - Incident Management Manual (sits on all control centres) 2. Network Rules and Procedures (ANGE 206 - CAN)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Crew will observe requirements in ANSG 608 for Passing signal that protects Slip site	
	6 Infrastructure collapse (See Section 6)		See Section 6	See Section 6		See Section 6	
	7 Road vehicle on line (See Section 4)		See Section 4	See Section 4		See Section 4	
	8 Object fallen from or spillage from train (i.e. parts or load or during loading)		1. Network Rules and Procedures (ANTR 402 - Inspecting Trains) 2. TOC / RAS	1. T444 - Incident Management Manual (sits on all control centres) 2. Network Rules and Procedures (ANGE 206 - CAN)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
	9 Maintenance material/equipment left foul of the track		Network Rules and Procedures ANWT 300 to ANWT 310 - Work on track methods	1. T444 - Incident Management Manual (sits on all control centres) 2. Network Rules and Procedures (ANGE 206 - CAN)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
	10 Agricultural vehicle erroneously crossing track or operating in the kinematic envelope	1 Collision with agricultural vehicle 2 Damage to rail vehicle 3 Immobilised rail vehicle	Network Rules and Procedures ANWT308 - Control Signal Blocking to protect vehicle or livestock crossing track	1. T444 - Incident Management Manual (sits on all control centres) 2. Network Rules and Procedures (ANGE 206 - CAN)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
	11 Plant equipment erroneously crossing track or operating in the kinematic envelope	1 Collision with Plant equipment 2 Damage to rail vehicle 3 Immobilised rail vehicle	Network Rules and Procedures ANWT 302, 304, 305 - Work on track methods	1. T444 - Incident Management Manual (sits on all control centres) 2. Network Rules and Procedures (ANGE 206 - CAN)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	

# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls			
			ARTC	RailCorp	Other	
	12. Livestock in rail corridor - both dead or alive (wombats on track). Lack of corridor fencing. Farmers put cattle in rail corridor to feed. Rail corridor crosses stock route	1. Collision with Animal 2. Damage to rail vehicle 3. Immobilised rail vehicle	<b>Preventative (Cause)</b> 1. Fencing where provided. 2. Agreements with landowners to manage livestock 3. Network Rules and Procedures (ANGE 206 - CAN) ANMT308 - Control Signal Blocking to manage livestock crossing track	<b>Mitigative (Consequence)</b> 1. TAA4 - Incident Management Manual (sits on all control centres) 2. Network Rules and Procedures (ANGE 206 - CAN)	<b>Preventative (Cause)</b> 1. TAA4 - Incident Management Manual (sits on all control centres)	<b>Mitigative (Consequence)</b> 1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP-100 Responsibilities of train crew - report hazards to NCO and submit Trip Report
<b>SECTION 8 - Out of gauge rail vehicle</b>						
H21	Out of gauge rail vehicle	1. As above				
<b>SECTION 9 - Person in path of rail vehicle</b>						
H22	Member of public in path of rail vehicle in rail corridor (includes tunnels, bridges etc)	1. Unauthorised access to rail corridor	1. Fencing and security where provided 2. Security response to reported trespass Signage			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP-100 Responsibilities of train crew - report hazards to NCO and submit Trip Report
H23	Emergency services in path of rail vehicle in rail corridor (includes tunnels, bridges etc)	1. Emergency/ incident response	1. ANGE 208 - Responding to major incident. <b>2. ARTC to define the protocols in place with emergency services</b>	TAA4 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP-100 Responsibilities of train crew - report hazards to NCO and submit Trip Report
H24	Person in path of rail vehicle at active level crossing (all types) (assumes all controls are in place and working)	1. Level crossing fails to activate on approach of train  2. Person climbing under rail vehicle to get over crossing (rail vehicle stationary across crossing)  3. Rail vehicle SPADs signal in proximity to level crossing  4. Person gets stuck on level crossing (e.g. Wheelchair, mobile, walking frames, incapacitated, falls, high heels, clothing)  5. Person violates level crossing protocols (person does not intend to wait for train to pass)	1. Engineering Standards for design, testing and maintenance 2. Level crossing monitoring (Cerberus, Sears, Brodersen) Daily Testing - ANGE216 Level Crossings 3. ANGE220 Unreliable track circuits 4. NPR748 Transferring Track vehicles  Signalling design standards  Signalling design standards  Signalling design standards  Level crossing design standard Routine Maintenance  Rail Safety Week Community engagement	1. Driver observance of signal indication in accordance with ANSG 606 2. Driver observance of passing signal at STOP rule and procedures in accordance with ANSG 608, ANPR 746, OSP 5		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP-100 Responsibilities of train crew - report hazards to NCO and submit Trip Report  1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP-100 Responsibilities of train crew - report hazards to NCO and submit Trip Report  1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP-100 Responsibilities of train crew - report hazards to NCO and submit Trip Report



# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC		RailCorp		Other
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)	
	6 Person intentionally stops on level crossing (Mental health disposition)					1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
H25	Person in path of rail vehicle at passive level crossing (all types)	1 Person climbing under rail vehicle to get over crossing (rail vehicle stationary across crossing)	See H24			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Australian Standards
	2 Person gets stuck on level crossing (e.g. Wheelchair, mobile, walking frames, incapacitated, falls, high heels, clothing)		See H24			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
	3 Person violates level crossing protocols (person does not intend to wait for train to pass)		See H24			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Road rules
	4 Person intentionally stops on level crossing (Mental health disposition)					1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Mental health
H26	Person in path of rail vehicle at station	1 Sitting on edge of platform		TA44 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Station owner
	2 Standing too close to platform edge			TA44 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Station owner
	3 Person falls onto track (see also loss of balance on platform)			TA44 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Station owner
	4 Person jumps into path of train with intent to commit suicide			TA44 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Station owner

# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC	RailCorp	Other		
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)	
	5 Person pushed by individual/crowd		TA44 - Incident Management Manual (sits on all control centres)			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP/100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Station owner
	6 Person retrieving item that has fallen onto track		TA44 - Incident Management Manual (sits on all control centres)			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP/100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Station owner
	7 Pushed by mobile plant		TA44 - Incident Management Manual (sits on all control centres)			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP/100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	Station owner
	8 Persons crossing between platforms		TA44 - Incident Management Manual (sits on all control centres)			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP/100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
H27 Worker in rail corridor (with authority) in path of rail vehicle	1 Track worker outside of prescribed limits of work site area and on adjacent running line		1. Network Rules and Procedures (ANWT 300 - Planning Work) 2. Pre-work briefing 3. RISI and TSA training and awareness			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP/100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
	2 Track worker fails to move to safe place		1. Network Rules and Procedures (ANWT 300 - Planning Work) 2. Pre-work briefing 3. RISI and TSA training and awareness			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP/100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
	3 Incorrect Work on track method used		1. Network Rules and Procedures (ANWT 300 - Planning Work) 2. Network Rules ANWT302 to 310 - Work on track methods 3. Pre-work briefing 4. RISI and TSA training and awareness 5. SP0502 - Competency / communication protocol for entering rail corridor			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP/100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	
	5 Worker in rail corridor associated with shunting activity		1. Network Rules, (ANTR 420 - shunting) 2. ANSC604 - Narrow track clearance signage 3. Local appendix unit (LAU)	1. Train Crew observance of ANGE 200 working in the danger zone 2. ANWT300 - Planning work in the rail corridor		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP/100 Responsibilities of train crew - report hazards to NCO and submit Trip Report	

# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls			
			ARTC	RailCorp		Other
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)
H28	Worker in rail corridor (with no authority) in path of rail vehicle	1 Authority set up for wrong location	1. Network Rules and Procedures (ANWT 300 - Planning Work) 2. Network Rules ANWT302 to 310 - Work on track methods 3. Pre-work briefing 4. RISI and TSA training and awareness 5. SP0502 - Competency / communication protocol for entering rail corridor 6. Communications in accordance with ANGE204			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report
		2 Worker fails to request authority	1. Network Rules and Procedures (ANWT 300 - Planning Work) 2. Network Rules ANWT302 to 310 - Work on track methods 3. Pre-work briefing 4. RISI and TSA training and awareness 5. SP0502 - Competency / communication protocol for entering rail corridor			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report
H29	Person in path of rail vehicle during train evacuation	1 Block not applied (Signaller or Train Crew error) Passenger fail to follow directions incorrect block applied. Emergency evacuation no protocols applied (crew unable to control evacuation)	1. Communication Protocol between NC and train 2. Radio System emergency button or open channel (Country net) (ICE)	T444 - Incident Management Manual (sits on all control centres)	1. OSP 11 - Determing Passengers to track when not at stations 2. Communication Protocol between Train and NC 3. Train Radio System emergency button or open channel (Country net) (ICE)	1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report
<b>SECTION 10 Airborne object arising from rail corridor</b>						
H30	Airborne object arising from loose items in rail corridor	1 External Incident				1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report
H31	Airborne object arising from passing rail vehicle in rail corridor	2 Maintenance error Unsecured freight, leaking freight (lack of containment) Mechanical structural failure	Operating Rules loading requirements		Train preparation and maintenance is accordance with MDT 400 Minimum Operating Standards - Explorer and 48C 050 Minimum Operating Standards - Abiders ensuring rolling stock is fit for purpose before entering service	1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report
H32	Airborne object arising from trackside activities	3 Incident during track work Accident during track work	Network Rules and Procedures			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report
H33	Airborne object following collision/derailment	4 Loss of separation between rail vehicles - Derailment	Member of public struck by object Train speed, loading secured			1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report
<b>SECTION 11 - Exposure to harmful atmospheres</b>						
H34	Harmful atmospheres inside train	1 Train following diesel train into tunnel (Diesel fumes)	Passenger / Crew exposure to harmful atmospheres drawn into train	LAUs for existing		Design standards for new tunnels



# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC		RailCorp		Other
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)	
	2. Rail vehicle stopped in tunnel (ingress of fumes into rail vehicle)		LAUs, Network Rules (CAN)			Compliance with procedure for excessive exhaust fumes in tunnels CHMDT 452	Design rules and criteria
	3. Smoke emitted from bush fire.		1. LAUs 2. Network Rules and Procedures (ANGE 206 - CAN) 3. TOR	T444 - Incident Management Manual (sits on all control centres)			
	4. Other external Emergency conditions -e.g. Gas leak (from local facility)-		1. LAUs 2. Network Rules and Procedures (ANGE 206 - CAN) 3. TOR 4. TOC (hazardous loads, dangerous goods)	T444 - Incident Management Manual (sits on all control centres)			
H35	Harmful atmospheres in yard or siding	1. Crew exposure to harmful atmospheres in stabling yard	1. LAUs 2. Network Rules and Procedures (ANGE 206 - CAN) 3. TOR	T444 - Incident Management Manual (sits on all control centres)			
	2. Other external Emergency conditions -e.g. Gas leak (from local facility)-		1. LAUs 2. Network Rules and Procedures (ANGE 206 - CAN) 3. TOR 4. TOC (hazardous loads, dangerous goods)	T444 - Incident Management Manual (sits on all control centres)			
H36	Exposure to bio-hazards (station/yard/train)	1. Infection of staff / Passengers	1. National unit of competency 2. OHS 3. First aid on site 1. National unit of competency 2. OHS 3. First aid on site 4. SWMS National unit of competency 1. National unit of competency 2. OHS 3. First aid on site 1. Network Rules and Procedures 2. Emergency procedures	T444 - Incident Management Manual (sits on all control centres)			Operator
	2. Discarded needles (hypodermic syringes)				SWMS SWIs		Operator
	3. Assault (spitting)						Operator
	4. Exposure to bodily fluids during admission of first aid						Operator
	5. Terrorist activity	1. Infection of staff / Passengers		T444 - Incident Management Manual (sits on all control centres)			Operator
SECTION 12 - Fire							
H37	Fire on train	1. People trapped by advancing fire, Smoke inhalation, Burns.		T444 - Incident Management Manual (sits on all control centres)	Procedures for dealing with persons carrying flammable materials on trains OSP 22	OSP11 - Detraining passengers Responding to fire alarm on train	Operator Emergency Plan
	1. Dangerous/flammable goods brought onto train by passengers						
	2. Criminal intent to conduct arson					OSP11 - Detraining passengers Responding to the alarm on train	Operator Emergency Plan
	3. Smoking on train				Legislation and prohibition	OSP11 - Detraining passengers Responding to the alarm on train	Operator Emergency Plan
	4. Act of vandalism on train					OSP11 - Detraining passengers Responding to the alarm on train	Operator Emergency Plan
	5. Flammable liquid leak					OSP11 - Detraining passengers Responding to the alarm on train	Operator Emergency Plan
	6. On train equipment fault - burnt car equipment				Engine fire suppression system, Smoke detection in passenger cars	OSP11 - Detraining passengers Responding to the alarm on train	Operator Emergency Plan
H38	Fire in Rail Corridor	1. Damage to infrastructure (potential structural failure) immobilised train	1. Vegetation control (TMP) 2. Hazard reduction 3. Network Rules	T444 - Incident Management Manual (sits on all control centres)		1. Driver reports condition affecting Network ANGE 206 CAN 2. TMP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework	Bushfire Act, State Legislation Emergency Services (Disaster Plans)

# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC		RailCorp		Other
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)	
	2 Flammable liquid leak			TA44 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework	
	3 weather/lightning			TA44 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework	
	4 Hot work activities		1. SWMS	TA44 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework	
	5 Inappropriate disposal of hot material		1. SWMS	TA44 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework	
	6 Rail vehicle on fire propagates fire to surrounding environment/infrastructure			TA44 - Incident Management Manual (sits on all control centres)	Fire suppression equipment fitted to XPT power cars	1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework	
	7 Smoking in rail corridor			TA44 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework	
	8 Hot brakes		1. Engineering Standards controls 2. Roll by inspection	TA44 - Incident Management Manual (sits on all control centres)		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework	
<b>SECTION 13 - Loss of balance</b>							
H389 Loss of balance boarding alighting rail vehicle in rail corridor	1 Detraining rail vehicle in rail corridor	1 Person falls into rail corridor	1. NTC guidelines for health assessments 2. OHS guidelines 3. Pre-work 4. Worksite protection plans 5. SWMS 1. Fall from height protection 2. SWMS 3. Pre-work brief 4. Worksite protection				
	2 Slippery steps						



# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls			
			ARTC	RailCorp		Other
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)
	3 Significant drop to ground		1. Fall from height protection 2. SWMS 3. Pre-work brief 4. Worksite protection			
H40 Loss of balance in rail corridor	10 Person misplaces feet	1 Person falls	1. NTC guidelines for health assessments 2. OHS guidelines 3. Pre-work 4. Worksite protection plans 5. SWMS 6. National unit of competency 7. Inductions	OSP1 Safety awareness for work in rail corridor		Health Standards
	11 Excessive draught/wind			OSP1 Safety awareness for work in rail corridor		Health Standards
	1 Excessive slope/camber of terrain			OSP1 Safety awareness for work in rail corridor		Health Standards
	2 Person collapses/faints			OSP1 Safety awareness for work in rail corridor		Health Standards
	3 Inappropriate behaviour in rail corridor			Rail Industry Safety Induction (RISI)		Health Standards
	4 Poor condition of walkway			OSP1 Safety awareness for work in rail corridor		Health Standards
	5 Slippery walkway			OSP1 Safety awareness for work in rail corridor		Health Standards
	6 Unprotected work area in rail corridor			OSP2 Carrying out work using lookout working or CSB OSP3 Protection arrangements for repainting trains in service OSP1 Safety awareness for work in rail corridor		Health Standards
	7 Walking across sleepers/ballast					

## SECTION 14 - Unauthorised entry/access

H41 Unauthorised entry/access to rail corridor	Cause	Consequence	Current Controls			
			ARTC	RailCorp		Other
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)
	1 Willful act of trespass (including opportunity to take short cut across rail corridor to reach desired location)	1 Loss of separation between person and Train	1. Signs 2. Fencing where fitted 3. Community engagement	1. T444 - Incident Management Manual (sits on all control centres) 2. CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TYP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework
	2 Children/youths playing in close proximity to rail corridor		1. Signs 2. Fencing where fitted 3. Community engagement	1. T444 - Incident Management Manual (sits on all control centres) 2. CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TYP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework
	3 Desirable items in rail corridor to be stolen (e.g. copper)		1. Signs 2. Fencing where fitted 3. Community engagement	1. T444 - Incident Management Manual (sits on all control centres) 2. CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TYP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework
	4 Desire to self harm/commit suicide			1. T444 - Incident Management Manual (sits on all control centres) 2. CAN Rule (ANGE 206) NSW only - Reporting of hazards and driver compliance to CAN warning		1. Driver reports Condition Affecting Network ANGE 206 CAN 2. TYP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework

Trespass law

# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC	RailCorp		Other	
	5 Ineffective demarcation between rail corridor and surrounding environment		<b>Preventative (Cause)</b> 1. Signs 2. Community engagement	<b>Mitigative (Consequence)</b> 1. T444 - Incident Management Manual (sits on all control centres) 2. CAN Rule (ANZE 206) NSW only - Reporting of hazards and driver compliance to CAN warning		<b>Mitigative (Consequence)</b> 1. Driver reports Condition Affecting Network ANZE 206 CAN 2. TWP100 Responsibilities of train crew - report hazards to NCO and submit Trip Report Incident Management Framework	
SECTION 15 - Other							
H42	Exposure to high levels of noise	1 Application of train Country from during transit through tunnel or through built up areas.	1 Potential for Hearing Damage to member of general public, train crew (if outside of train) or trackside worker.	Network Rules and Procedures (planning work in rail corridor)	Driver Observance of procedures in ANTR 408 using train whistles		ROA Standards
H43	Manual handling error	1 Applying excessive force to move items (e.g. manual points/frames, obstructions from track fallen trees, dead animals etc)	1 Muscular stress	1. National Unit of Competency 2. OHS 3. Network Rules and Procedures 4. Engineering Standards 5. Design/maintenance 6. Pre-work brief 7. SWMS			
H44	Uncommanded separation of rail vehicle during scheduled operations	1 Coupling task incorrectly actioned 2 Physical failure of coupling 3 Rough riding causes coupling to fail 4 Uncommanded release of coupling	1 Separated cars gather speed and hit buffer stop 2 Separated cars gather speed and derail 3 Separated cars gather speed and collide with front cars 4 Rear cars roll backwards out of sector resulting in collision with rail vehicle in previous sector 5 Rear cars remain undetected in sector resulting in collision with next train	Maintain track to Engineering Standards 1. Rail Vehicle Detection 2. Signalling Systems 3. Network Rules and Procedures 4. Train integrity 1. Rail Vehicle Detection 2. TOC 3. Network Rules and Procedures	Observance of procedures for coupling trains OMDT 418, OMDT 420, OMDT 422  Train preparation and maintenance is accordance with MDT 400 Minimum Operating Standards - Explorer and 49C 030 Minimum Operating Standards - 49class ensuring rolling stock is fit for purpose before entering service		Operator   Operator  Operator
H45	Item thrown at rail vehicle	1 Inappropriate behaviour in proximity to rail corridor 2 Physical grievance against person or corporation 3 Vandalism	1 Passenger/crew member struck by object thrown at rail vehicle 2 Rail vehicle damaged (potential immobilisation)	1. Network Rules and Procedures 2. TOR	T444 - Incident Management Manual (sits on all control centres)		Operator
H46	Exposure to dangerous animals/insects in rail corridor	1 Inadvertent contact with animal/insect 2 Interference with animal/insect 3 Lack of awareness of which animals/insects are dangerous 4 Local environment attractive to dangerous animals/insects	1 Poisonous insect/animal bite	1. Network Rules and Procedures 2. Inspection/maintenance			Operator
H47	Loss of intended operational containment of people on train away from station	1 Train operating with broken/removed window 2 Crew cab door open when train in motion 3 External passenger door opens while train in motion 4 Failure of passenger train carriage coupling in service	1 Person injured alighting train onto track 2 Person alights onto track and is struck by oncoming train 3 Person falls from train	Network Rules and Procedures T444 - Incident Management Manual (sits on all control centres)	Observance of procedures for damaged or missing glass in TWP 150		Operator
Train preparation and maintenance is accordance with MDT 400 Minimum Operating Standards - Explorer and 49C 030 Minimum Operating Standards - 49class ensuring rolling stock is fit for purpose before entering service							

Train preparation and maintenance is accordance with MDT 400 Minimum Operating Standards - Explorer and 49C 030 Minimum Operating Standards - 49class ensuring rolling stock is fit for purpose before entering service

# ARTC/RailCorp SIA Risk Review Sheet

Hazard	Cause	Consequence	Current Controls				
			ARTC	RailCorp		Other	
			Preventative (Cause)	Mitigative (Consequence)	Preventative (Cause)	Mitigative (Consequence)	
H48 Fuel spillage from train	1 Mechanical failure of fuel containment on train / or external interference by infrastructure	1 Failure of train in rail corridor - Consequence bounded by H01 and H02	1 Network Rules and Procedures 2. Environmental policy	TA44 - Incident Management Manual (sits on all control centres)			Operator

## **SCHEDULE 4:**

### **Operating Procedure**

**The parties will comply with the Operating Procedures specified in the track access agreements referred to in Schedule 2, and which include:**

ARTC Train Operating Conditions Manual

ARTC Network Rules

ARTC Network Procedures

ARTC Local Appendices Units

Australian Code for the Transport of Dangerous Goods by Road and Rail

Australian Code for the Transport of Explosives by Road and Rail

RailCorp Train Operations Manual



## SCHEDULE 5

### Communications Details – Contact List (DIRN)

<b>EMERGENCY CONTACT</b>	<b>Area of responsibility</b>	<b>Number</b>
<b>RailCorp Rail Management Centre (RMC) - Train Control Shift Manager</b>	CityRail and CountryLink operations (24 hours)	02 9379 1743
ARTC Junee	Train Transit Manager	02 6924 9809
ARTC Broadmeadow	Train Transit Manager	02 4902 7410
Fire, Police, Ambulance		000
<b>RAILCORP CONTACT</b>		<b>Number</b>
<b>Infrastructure Operations Centre (IOC)</b>	Infrastructure operations (24 hours)	02 9379 5555
<b>RailCorp security (RMC, Sydney)</b>	RailCorp security (24 hours)	02 9379 4444
<b>General Manager, Customer Service CountryLink and Hunter</b>	Address for Notices and Risk Review Representative	02 8575 0681
<b>ARTC CONTACT</b>		<b>Number</b>
<b>Safety Interface Officer ARTC</b>	Address for Notices and Risk Review Representative	0429 709 636

Contact details for Rolling Stock Operators can be obtained from the relevant ARTC Train Transit Manager.

Contact details for each Interface are listed in Schedule 2 to this Interface Agreement.

## **Appendix 7    ARTC Risk Management Policy**





## **RISK MANAGEMENT POLICY**

**ARTC believes that effective risk management is a key component of a successful business and is an integral part of the management process.**

**For the purpose of this policy risk is defined as possible events that could materially impact on the Company's financial performance, assets, reputation, people or the environment.**

**The risk management policy forms part of the internal controls and corporate governance of the Company and the purpose of the policy is to ensure that:-**

- **Risks are identified and actions formulated to mitigate the risks;**
- **A more risk aware culture is promoted throughout the Company;**
- **Appropriate systems are in place to support the risk management process;**
- **Management responsibilities are delegated to control the risks**

### **Our Goals for Risk Management**

- We will manage risk to enhance safety at work and to support efficient business operations and achievement of our strategic goals.
- We aim to eliminate or reduce the risks affecting the safety of our fellow employees, contractors, customers and members of the public, so far as is reasonably practicable.
- We will manage financial and business risks to ensure the commercial performance of the Company achieves our corporate goals and shareholder expectations.

### **Our Processes for Risk Management**

- We will approach risk management from the broad framework of the current Australian Standard AS/NZS ISO 31000:2009.
- We will use ARTC Risk Management Procedure RM-01 and associated documents or by processes embedded within other procedures or processes to guide our management of risk.
- Risks will be identified, analysed, evaluated, controlled and regularly reviewed.
- Risk Registers will be maintained at a corporate and/or project level as appropriate.
- Nominated owners of risks in these registers will be responsible for monitoring, periodic reviewing and reporting on risks which have been delegated to them.
- We will maintain a continuous improvement philosophy to drive Company performance.

### **Responsibility for Risk Management**

- The Board, through either the Audit and Compliance Committee for financial and business risk or the Environment, Health and Safety Committee for operational risk, is responsible for overseeing the establishment and implementation of an adequate system of risk management and internal compliance and control within the Company
- Management is responsible for the development, implementation, maintenance and review of the risk management process to ensure all risks are identified, analysed, evaluated and controlled
- All staff are responsible for adopting risk management appropriate to their work area and to contribute to the continued improvement in performance.

Where staff engages alliance partners, contractors, suppliers and consultants they should ensure these organisations and individuals are aware of our requirements for risk management and as a minimum, apply these for the work and services they provide for us.

A blue ink signature of John Fullerton, written in a cursive style.

**John Fullerton**  
Chief Executive Officer, ARTC

22/11/11  
date





## **Appendix 8    ARTC Risk Management Procedure RM-01 Version 6.1**







## AUSTRALIAN RAIL TRACK CORPORATION LTD

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Discipline: Risk and Compliance

Category: Procedure

# Risk Management Procedure

## RM-01

## 2010

Procedure Custodian:

General Manager Risk and Compliance

### Applicability

ARTC Network Wide
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### Document Status

Version	Prepared by	Reviewed by	Endorsed	Approval Date
Issue 6 Revision 0	Risk Manager	GM Risk and Compliance	Executive Committee	07/04/2009
Issue 6 Revision 1	Risk Manager	GM Risk and Compliance	Risk and Safety Committee	12/07/2010

### Amendment Record

Version	Review		Description of Amendment
	Sched.	Actual	
6.1	Jul 2010	Jul 2010	Annual review and alignment with AS/NZS ISO 31000, minor amendments

#### Disclaimer

This document is for internal use by the Australian Rail Track Corporation LTD (ARTC) only and may not be relied upon by any other party.  
ARTC: 1. does not accept any liability or responsibility whatsoever for this document in respect to any use or reliance upon it by any other party;  
and 2. does not provide any warranty as to the accuracy or reliability of this document.

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## 1.1 Purpose

The purpose of this procedure is to inform stakeholders of the ARTC process for the management of risks.

## 1.2 Key Risks and Controls

The key generic uncertainties (risks) that can have an effect on the achievement of ARTC's risk management objectives and the controls to manage those uncertainties are:

Risk	Controls
<p>Inadequate controls to reduce risk so far as is reasonably practicable</p> <p>Non compliance with relevant risk management requirements</p>	<p>Focus on building and maintaining a culture of risk management;</p> <p>Risk Management procedure systematically implemented with staff and relevant external stakeholders;</p> <p>Effective linkages between the various sources of risk information;</p> <p>Risk Management compliance monitoring and review processes in place;</p> <p>Risk Management training delivered across the organisation;</p> <p>Systematic internal and external audit mechanisms and corrective and preventive action procedures applied to the risk management process; and</p> <p>Systematic regulatory interface procedures in place.</p>

## 1.3 Scope

This procedure covers the identification, analysis, evaluation, control, review and communication of risks involving safety, finance and operations, and any other risk types. It applies to staff and other relevant stakeholders of ARTC.

## 1.4 Procedure Custodian

General Manager Risk and Compliance is the procedure custodian and accepts responsibility for the procedure's accuracy and adequacy and for maintaining its currency. General Manager Risk and Compliance is the initial point of contact for all queries relating to this procedure.

## 1.5 Definitions

The following terms (consistent with AS/NZS ISO 31000) are used within this document:

Term	Definition
Causal factor	That which produces or affects a result. Used in this document to describe the cause contributing to a hazard or circumstance occurring.
Circumstance	A condition, or set of conditions, leading to a risk event. The circumstance is often used to describe "what could go wrong".
Consequence	Outcome of an event affecting objectives. An event can lead to a range of consequences. A consequence can be certain or uncertain and can have positive or negative effects on objectives. Consequences can be expressed qualitatively or quantitatively.
Control	Measure modifies risk. Controls may include any process, policy, device, practice, or other actions which modifies risk. Controls may not always exert the intended or assumed modifying effect.
Event (Risk Event)	Occurrence or a change of a particular set of circumstances. An event can be one or more occurrences, and can have several causes. An event can consist of something not happening. An event can sometimes be referred to as an 'incident' or 'accident' (e.g. collision, derailment). An event without consequences can also be referred to as a 'near miss' or 'breach'.
Hazard	A source of potential harm e.g. in terms of human injury, damage to property or other loss. A hazard can be a risk source.
Likelihood	A qualitative description of the chance of something happening.
Level of Risk	Magnitude of a risk or combination of risks, expressed in terms of the combination of consequences and their likelihood.
Nominated Risk Manager	The person appointed by a General Manager to manage an individual risk or collection of risks on his or her behalf. A nominated risk manager would be a competent and appropriately trained person who might be required to conduct risk assessments, recommend and/or implement controls and manage risks within the ARTC risk register.
Operational Risks	Day-to-day risks that are managed within the organisational structure and by existing risk control mechanisms, without the need for detailed strategic management oversight.
Residual risk	Risk remaining after implementation of risk treatment.

Risk	Effect of uncertainty on objectives.  Note - an effect is a deviation from the expected, either positive and/or negative. Objectives can have different aspects (such as financial, Rail Safety, OHS and operational goals) and can apply at different levels (such as strategic, organisational, project and process).
Risk Description	Structured statement of risk usually containing four elements: sources (e.g. hazards), events, causes and consequences
Risk Management	Coordinated activities to direct and control an organisation with regard to risk.
Risk Custodian	The General Manager with the accountability and authority to manage the identified risks.
Risk Register	ARTC's electronic storage facility for risk related information.
Risk Source	Element which alone or in combination has the intrinsic potential to give rise to risk.
Safety Management System (SMS)	A comprehensive, fully integrated system to reduce safety risks through systematic application of safety management principles and processes. ARTC's SMS is outlined in SMP-01 and associated policies and procedures.
SFAIRP	So Far As Is Reasonably Practicable - the legal test as to whether a risk has been adequately managed. The likelihood and consequences of a risk must be weighed against the availability, effectiveness and cost of measures to eliminate or reduce the risk. Further information on the application of the SFAIRP test is included in Risk Management Work Instruction (RMWI) 3 – Guidelines on Safety So Far As Is Reasonably Practicable (SFAIRP).
Stakeholder	Person or organisation that can affect, be affected by, or perceive themselves to be affected by a decision or activity. A decision maker can be a stakeholder.
Strategic Risks	Risks that may affect the operations or viability of the business that require senior management oversight.

## 1.6 Responsibilities

Risk management is a continuous process that involves all ARTC staff, and staff members have responsibility for the implementation of this procedure. Any member of staff who becomes aware of a risk shall ensure that appropriate action is considered and taken, including immediate actions deemed necessary and advising their immediate supervisor. Staff members who interface with stakeholders are responsible for incorporating stakeholder input and perceptions into the process.



Chief Executive Officer is responsible for:

- Ensuring systems are in place for the identification and management of all risks;
- Ensuring systems are in place for the organisation to conform with the relevant government regulations; and
- The development, review and analysis of policies and practices to ensure risks comply with So Far As Is Reasonably Practicable (SFAIRP) principles.

General Manager Risk & Compliance is responsible for:

- The development, implementation and oversight of the Risk Management system, including the Risk Register that has been incorporated into the Risk Management System to enable timely analysis and control of risks.
- Periodically reporting the status of the risk management system to the Risk and Safety Committee

Chief Operating Officer/Chief Financial Officer and General Managers are responsible for:

- Planning and implementing processes for risk management within their area of responsibility in accordance with this procedure;
- Ensuring relevant, comprehensive information and training in risk management is provided to staff, contractors, Alliance partners and other stakeholders within their area of responsibility;
- Ensuring appropriate risk assessments are conducted for notifiable changes to ARTC infrastructure, or the Safety Management System, as per SP-02-12;
- Monitoring and reviewing the effectiveness of the management of risk process in their area of responsibility and planning and implementing identified opportunities for improvement.

ARTC Risk Manager is responsible for:

- Providing advice and reasonable assistance to nominated risk managers, other staff and relevant external stakeholders on their risk management obligations;
- Documenting and communicating this procedure to all relevant internal and external stakeholders;
- Ensuring that training in risk management is conducted for relevant ARTC staff and stakeholders;
- Monitoring and measuring the effectiveness of this procedure and its interface with related policies and procedures;
- Reviewing and updating this procedure and associated documents; and

- Preparing and submitting annual and other required Risk Management reports to the General Manager, Risk and Compliance for consideration by the Risk and Safety Committee.

Executive Manager Standards, Systems and Performance is responsible for:

- Ensuring that an appropriate level of safety risk assessment is performed for new equipment and systems introduced into the ARTC Network (refer to PP122).

Nominated risk managers are responsible for:

- Ensuring project risks and controls are entered into the relevant risk registers and that these risks and the effectiveness of their controls are periodically reviewed;
- Managing an individual risk or collection of risks on behalf of the relevant General Manager. General Managers shall appoint as many nominated risk managers as is necessary to ensure that all risks for which they are responsible are adequately managed. Typically, a nominated risk manager would be a project manager, safety interface manager, compliance manager, operations support manager or other competent person who might be required to conduct risk assessments and recommend and/or implement controls.

Audit Manager is responsible for:

- Auditing the effectiveness of ARTC risk management documentation, processes and practices and the level of achievement of objectives;
- Presenting findings and recommendations and following up corrective and preventive actions;
- Preparing and submitting required audit reports to the General Manager, Risk and Compliance for consideration by the Risk and Safety Committee; and

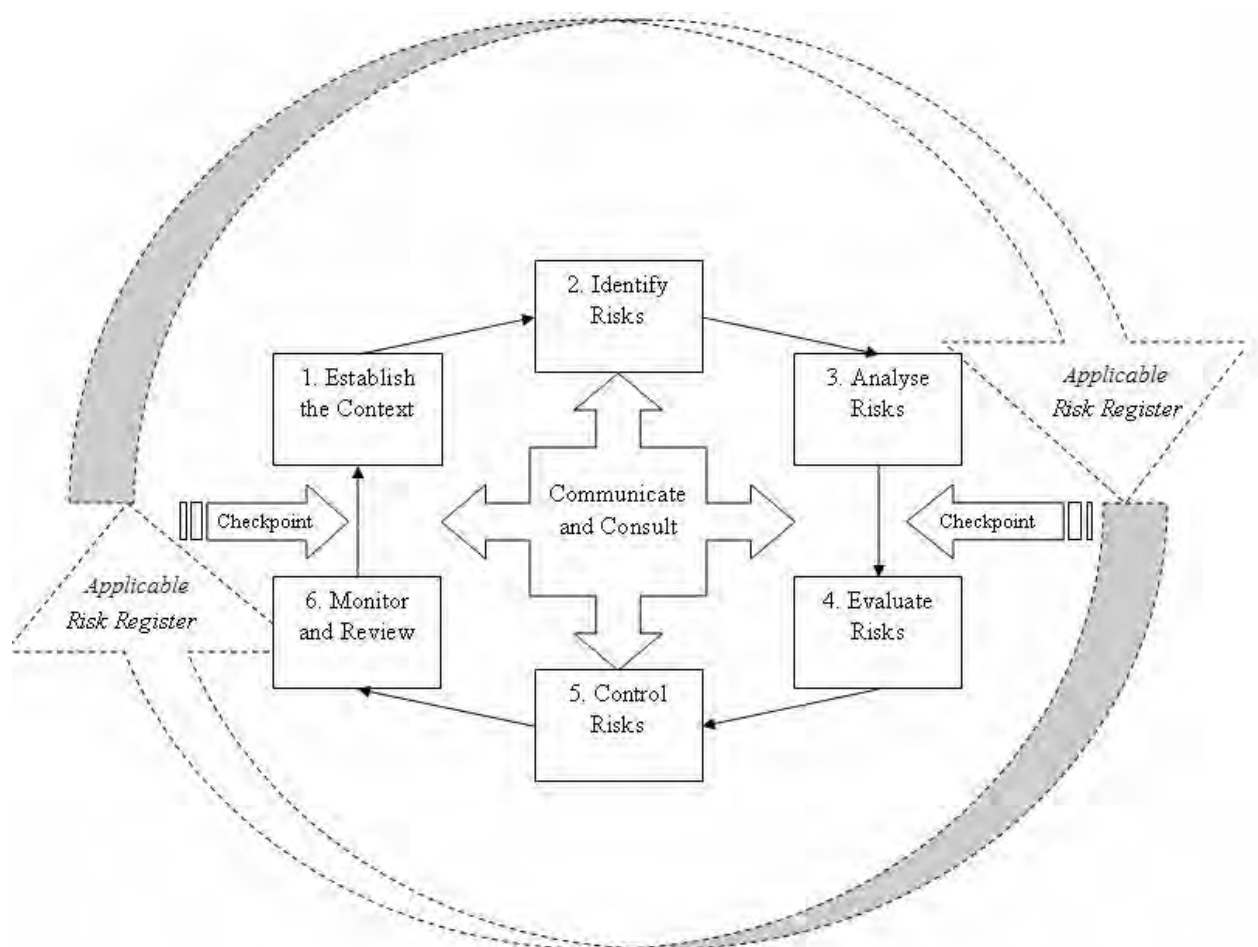
Worksite Supervisors are responsible for:

- Identifying and communicating local worksite hazards and their controls to all personnel at that particular worksite; and
- Reporting significant risks to their ARTC manager for further action and possible inclusion within a risk register.

## 1.7 Risk Management Process

Figure 1 shows a broad overview of ARTC's risk management process based on AS/NZS ISO 31000 – Risk Management. Risks are identified from various sources, assessed and entered into the appropriate risk register by a General Manager, their delegate, or the ARTC Risk Manager. Once on a risk register, risks are analysed in greater detail, responsibility allocated to the appropriate manager and control effected. The risk is then monitored to ensure the continued effectiveness of any control. Stakeholder consultation occurs at each stage of the process where appropriate.

Figure 1: ARTC Risk Management process



### Step 1: Establish the context

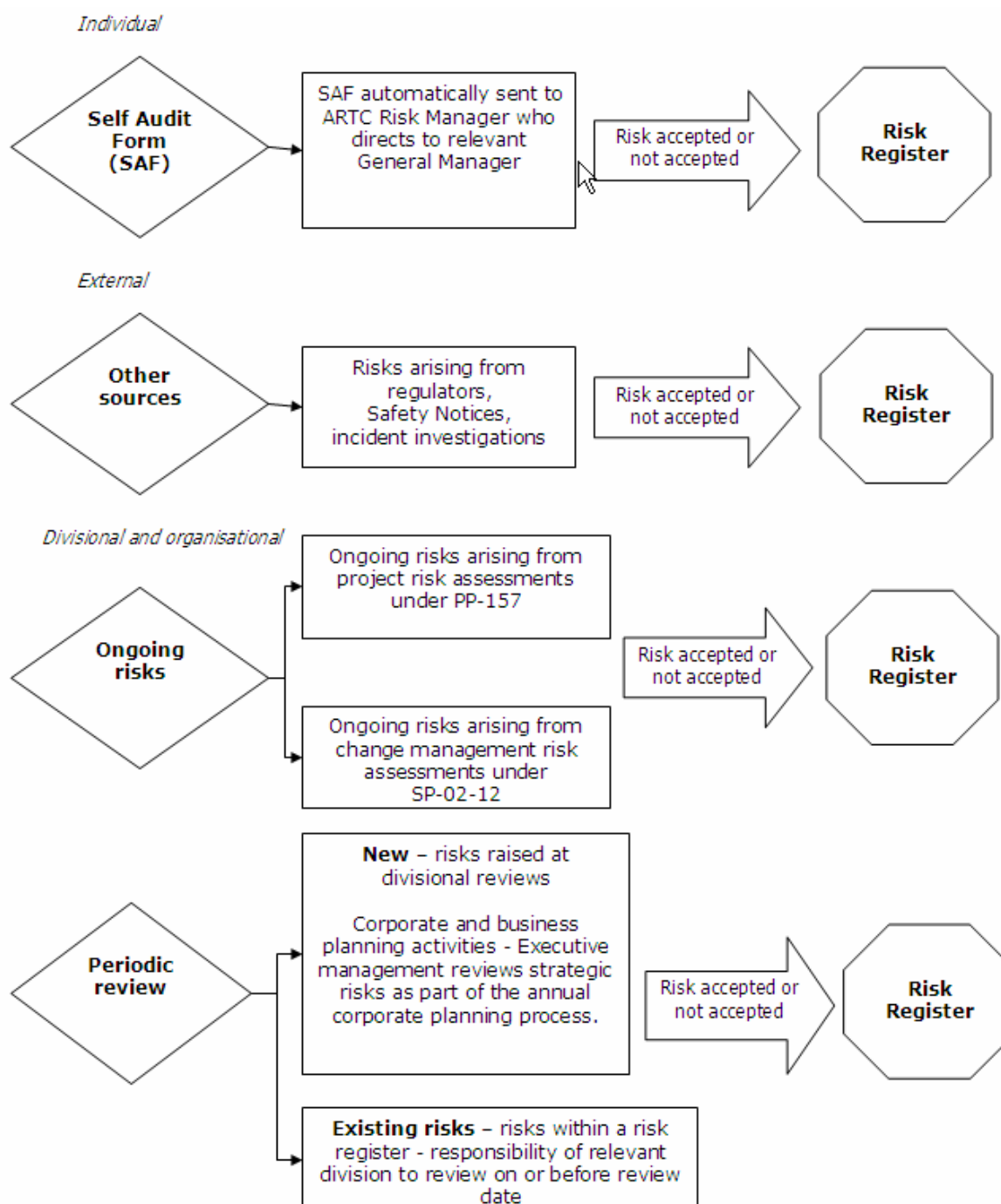
This step defines the basic parameters within which risks must be managed and sets the scope for the remainder of the process. The context for overall Risk Management within ARTC must be established at the organisational (strategic) and local (operational) level. At a strategic level, the context for ARTC risk management (including definition of the internal and external environment) is broadly defined in the organisation's corporate plans. Risk Criteria for safety, financial and operational risks are defined within this document in Table 3.1 – ARTC Consequence Criteria. Risk Criteria for individual projects are developed in accordance with PP157 – Project Management.

Establishment of operational context is a requirement of the Risk Assessment process. A consultative approach with stakeholders must be used to determine the context, risk criteria and structure for the remainder of the process. Guidelines for the establishment of context when conducting a Risk Assessment are contained within WI 3 - Conduct Risk Assessment Workshop.

## Step 2: Identify risks

A risk is made up of a number of components. These usually include a source (e.g. a hazard), risk event, causes and consequences. There may be a number of causal factors leading to the risk event. The risk level is defined in terms of consequence and likelihood.

The aim of risk identification is to generate a comprehensive list of sources of risks and events that might have an impact on the achievement of each of the objectives. Risk identification occurs at an individual and organisational level, as part of the risk assessment process, and through external sources, as per the following diagram:



## 2.1 OHS Risk Management

Identification and management of Occupational Health and Safety risks is achieved in accordance with ARTC's OHSMS. At an individual level, ARTC personnel use risk identification strategies in their day-to-day activities, prior to undertaking work on the track and in other hazardous situations. Hazards associated with worksites are managed and communicated through the Project Management risk management processes (PP157), Take 5 risk assessments, ARTC Pre-Work briefs and in Work Method Statements.

## 2.2 Risk Identification Form

Staff are encouraged to use the Risk Identification Form (RIF), available on the intranet under Risk Management, to report identified risks within their field of influence and control. The RIF provides an avenue for a bottom-up process to identify and assess risks, their perceived consequence and likelihood and adequacy of the control measures in place. Risks identified through the RIF process are initially notified to the ARTC Risk Manager and then passed to the relevant General Manager for action.

## 2.3 Formal risk assessment

A formal, documented Risk Assessment must be conducted in various circumstances (including when notifiable changes are planned to ARTC Safety Management System and/or network configuration in accordance with SP 02-12 - Change Management and Regulatory Notification, and as directed in PP157 – Project Management Procedure). Use of formal risk assessment process for circumstances other than those listed above is up to the discretion of the relevant General Manager. The process for conducting a Risk Assessment is outlined in the reference Risk Management Work Instructions.

The Nominated Risk Manager must have sufficient experience and/or training in order to conduct a risk assessment workshop. Sufficient training and/or experience includes:

- a. completed the ARTC Risk Assessment Facilitator training course;
- b. completed an external training course based on AS/NZS 4360 or AS/NZS ISO 31000; and/or
- c. facilitated previous risk assessments.

Risk identification methods used as part of the Risk Assessment process include checklists, brainstorming, experience and historical records, stakeholder consultation, flow charts, systems and scenario analysis and systems engineering techniques. The approach taken will depend on the type of activities and risks under review and is at the discretion of the Nominated Risk Manager. The methods used to identify risks must be documented in the risk assessment report.

A risk assessment must be conducted in formal consultation with stakeholders likely to be affected by the changes being risk assessed and records of this consultation maintained. Detailed instruction on the analysis of risks during a risk assessment is contained within WI 2 – Conduct Risk Assessment Workshop.

Ongoing and significant risks identified within a formal risk assessment must be transferred to an appropriate risk register.

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### Step 3: Analyse risks

Analysis involves consideration of the sources and causes of risk, their consequences, and the likelihood that those consequences will eventuate. This step is conducted to develop a greater understanding of risks, facilitates prioritisation, and provides ARTC with data to assist in the evaluation and control of risks.

Where qualitative assessment is adequate (refer RMWI 2, Step 3), identified risks are analysed and reported in terms of likelihood and consequence criteria. The nominated risk manager must consider the existing controls applicable to the risk scenario in question. Identification of the causal factors is important so that stakeholders can assess what controls already exist that specifically address the identified causes. Knowledge of ARTC's control inventory is critical at this stage and getting the right mix of stakeholders to participate when assessing risks will greatly assist.

The assessed levels of likelihood and consequence are analysed and ranked using the risk level table (Table 3) to determine the overall level of risk for the activity, situation or circumstance. The risk may be described as Very High, High, Medium or Low.



## ARTC RISK ANALYSIS TOOLS

Table 3.1 - ARTC CONSEQUENCE CRITERIA

LEVEL	Descriptor	Safety	Financial	Operational
1	Not Significant	No medical control	< \$250,000	< 6 hours track closure
2	Minor	Lost Time Injury Occurs Or Medical Control Required	≥ \$250,000 but less than \$2,000,000	≥ 6 hrs but less than 24 hrs track closure.
3	Moderate	Serious Injury Occurs	≥ \$2M but less than \$10M	≥ 24 hours but less than 48 hours track closure.
4	Major	Single fatality occurs	≥ \$10M but less than \$50M	≥ 2 days but less than 5 days track closure.
5	Extreme	Multiple but localised fatalities occur	≥ \$50M	≥ 5 days track closure.

Table 3.2 - ARTC LIKELIHOOD CRITERIA

Level	Descriptor	Description	Frequency of Occurrence
A	Almost Certain	Is expected to occur in most circumstances	Once per month
B	Likely	Will probably occur in most circumstances	Between once a month and once a year
C	Possible	Might occur at some time	Between once a year and once in 5 years
D	Unlikely	Could occur at some time	Between once in 5 years and once in 20 years
E	Rare	May occur in exceptional circumstances	Once in more than 20 years.

Table 3.3 - Likelihood-Severity Risk Ranking Matrix

Likelihood	Consequences				
	Not Significant 1	Minor 2	Moderate 3	Major 4	Extreme 5
A Almost certain	M	M	H	VH	VH
B Likely	L	M	H	VH	VH
C Possible	L	L	M	H	H
D Unlikely	L	L	L	M	M
E Rare	L	L	L	L	M

In undertaking analysis using for the above Risk Matrix, the following must be considered:

- Partitioning the risk across many hazards and evaluating each against a matrix alone may lead to a hazard being assessed as low, whereas the total system risk may be in a higher category. The individual risks may be considered low, but collectively the risks may contribute to a higher overall likelihood of occurring (or more severe consequence). Analysing individual risks without looking at the overall system may lead to flawed decisions.
- Use of matrix alone is not enough to demonstrate SFAIRP (see Step 4). It must be demonstrated that there are no other reasonably practicable measures that can reduce risk further.

### 3.1 Project risk assessment

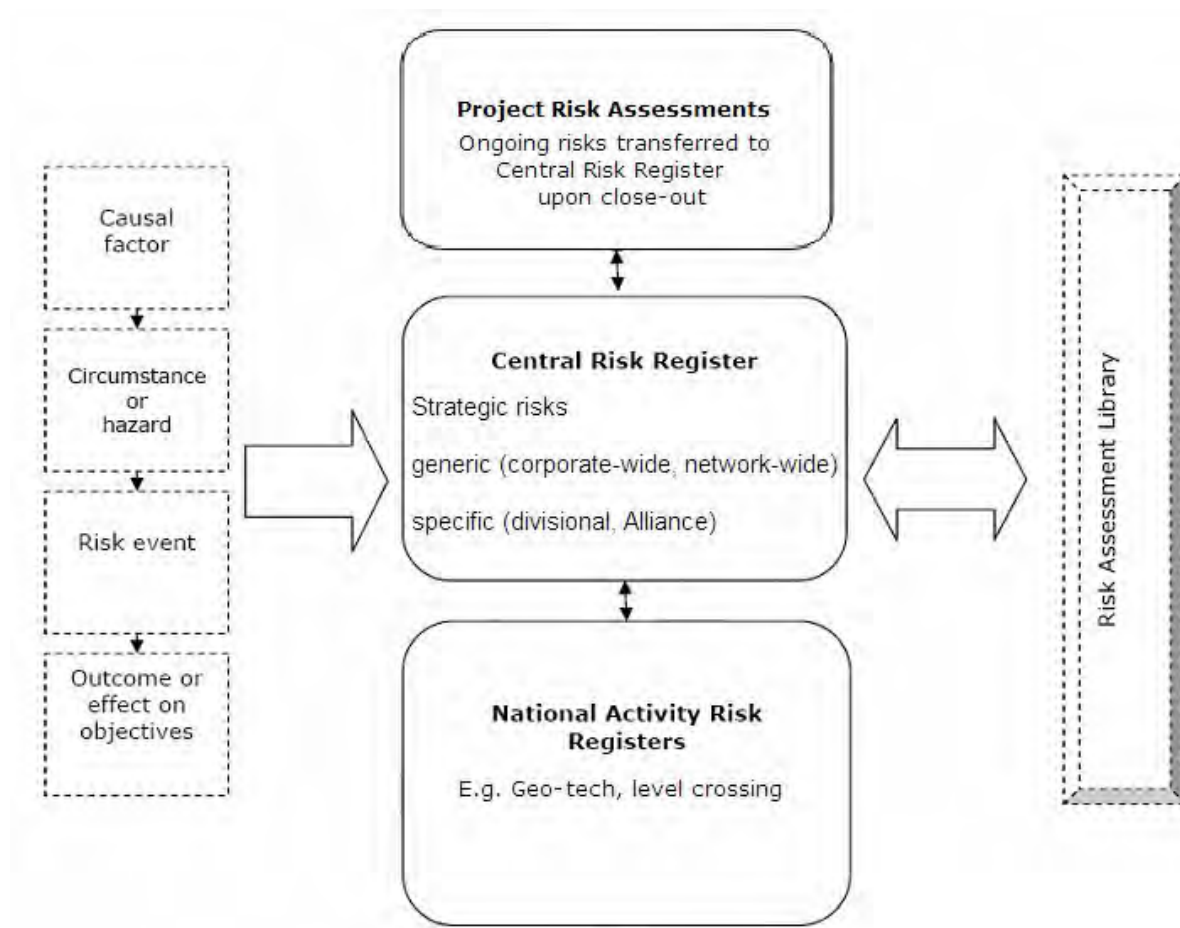
ARTC projects, which operate under the Project Management Procedure PP-157, may require particular risks to be assessed against additional consequence criteria of budget, schedule and performance. These additional risk criteria are developed by the Project Manager. They may be applied to those risks that are related to project delivery and are deemed to exist for the life of the project only. Further information is contained within PP-157.

Table 4 - Risk Priority and Review

Risk level	MANAGEMENT ACTION REQUIRED
Very High	<p><u>Immediate action required / control obligatory</u></p> <ul style="list-style-type: none"> <li>• The Respective GM will immediately discuss control actions and options with Nominated Risk Managers.</li> <li>• Agreed control actions are promptly implemented by the Nominated Risk Manager.</li> <li>• The Chief Executive Officer is informed immediately, and the Risk &amp; Safety Committee is made aware of the risk as soon as practicable.</li> </ul> <p>Review period: Very High risks should be reviewed at a period of no longer than every six months unless review is triggered earlier (ie. through incident investigation, audit findings etc).</p>
High	<p><u>Senior Management attention is needed and expected</u></p> <ul style="list-style-type: none"> <li>• Nominated Risk Manager convenes special group/meeting/reviews to prepare control actions and other initiatives.</li> <li>• Risk &amp; Safety Committee is made aware of risk.</li> <li>• Respective GM will expect regular feedback on status/progress of risk controls.</li> </ul> <p>Review period: High risks should be reviewed at a period of no longer than every 12 months unless review is triggered earlier (ie. through incident investigation, audit findings etc).</p>
Medium	<p><u>Management responsibility must be clear and specified</u></p> <ul style="list-style-type: none"> <li>• Not specifically brought to the attention of the Risk &amp; Safety Committee and the respective General Manager (GM).</li> <li>• May require some minor direction, action, or decision from the Nominated Risk Manager.</li> <li>• Included in normal reporting processes.</li> </ul> <p>Review period: Medium risks should be reviewed at a period of no longer than every 24 months unless review is triggered earlier (ie. through incident investigation, audit findings etc).</p>
Low	<p><u>Manage by routine ARTC procedures</u></p> <ul style="list-style-type: none"> <li>• Neither ARTC Management nor the Risk &amp; Safety Committee require any special reporting requirements.</li> <li>• Normal ARTC business practices in place are sufficient to manage this risk.</li> </ul> <p>Review period: Low risks should be reviewed at a period of no longer than every 36 months unless review is triggered earlier (ie. through incident investigation, audit findings etc).</p>

### 3.2 Risk Registers

The purpose of a risk register is to provide a record of all identified risks relating to the objectives of the organisation or business unit. They provide assurance on the range of control measures and plans in place to address identified risks. Risk registers act as a tool in support of managers when managing risks and help drive risk management activities.



#### ➤ Central Risk Register

The Central Risk Register contains risks to the achievement of ARTC's strategic objectives, generic risk events, and local risks specific to divisions or Alliances. The Central Risk Register is an important tool to inform strategic planning including prioritisation of resources.

It contains the following:

- Risk events. In this proposed risk register structure, risk events (or generic risks) will be captured in the Central Risk Register. Associated circumstances, hazards and causal factors will be linked between the Central, National Activity and Specific Purpose risk registers as appropriate. Risk events, such as fraud or derailment, may be categorised as an "event" within the register to distinguish from other risk issues.

- Strategic risks (risks that may affect the operations or viability of the business that require senior management oversight).
- Specific risks which may affect the performance or achievement of local objectives. Specific risk registers exist for all divisions and Alliances. New registers may be created within the Central Risk Register if deemed appropriate. Proposals to create a new risk register must first be submitted to the Risk and Safety Committee for approval

#### ➤ National Activity risk registers

The National Activity risk registers include existing registers such as the Geo-tech and Level Crossing registers. Proposals to create a new risk register must first be submitted to the Risk and Safety Committee for approval.

#### ➤ Risk Assessment Library

A risk assessment library is located on R Drive for the storage of all risk assessments. Once a risk assessment has been completed and signed off, it must be emailed to the ARTC Risk Manager. The risk assessment will then be filed within the library for future reference and continuous improvement of the risk management system.

### 3.3 Linkages between registers

It is the responsibility of each division or Alliance to review their risks within the Central Risk Register on a regular basis and within guidelines in Table – Risk Priority Action and Review. The aim is to review existing risks including their controls, identify new or additional risks and ensure changes to risk profiles are reflected in the registers.

Project specific risks are managed by the project until the project is complete. At this time, the risks shall be reviewed and ongoing risks entered into the appropriate risk register. Further information is contained within the Project Management Procedure PP-157.

#### Steps 4: Evaluate and control risks

The purpose of the risk evaluation and control phase is to document and implement decisions, based on the outcomes of the risk analysis, about the degree of control required for each risk and risk priorities with a view to eliminating the risk or minimising risk to the lowest possible level.

Risk evaluation involves comparing the level of risk found during the analysis process with risk criteria established when the context was considered. This activity is intended to determine:

- a. degree of control required for each risk; and
- b. if the activity associated with the risk should be undertaken.

All risks entered into a risk register will require evaluation. Each risk register will contain information on responsibility for and progress towards implementation of risk controls

("risk control plan"). ARTC will deploy available resources to risk control options based on a number of business and financial imperatives and constraints. The principal responsibility for control of risks is as follows:

1. Risks arising from corporate planning:

Principal responsibility: as assigned by the Executive Committee

2. Risks arising from all sources (Risk Management Self Audit Forms, projects, Divisional reviews, risk assessment workshops, etc.) where the risk impact can be said to be contained within one divisional process, project or contract:

Principal responsibility: The General Manager

3. Risks arising from all sources where multiple divisions are impacted:

Principal responsibility: As agreed by the affected Divisional General Managers or as assigned by the Risk & Safety Committee.

#### 4.1 SFAIRP

For safety risks, ARTC adopts the So Far As Is Reasonably Practicable (SFAIRP) principle when addressing the evaluation and control phase of the assessment. The Nominated Risk Manager responsible for ensuring the risk assessment is conducted must ensure that records are maintained to demonstrate the use of this principle in selecting final risk controls or controls. The basic principle of SFAIRP is to consider all possible controls and provide justification for adopting or rejecting those identified controls. Stakeholders and participants with the appropriate level of experience and knowledge must be involved in the decision making, and all decisions must be documented. Further detail on the principles and practical application of SFAIRP is included in RMWI 3 – Guidelines on So Far As Is Reasonably Practicable.

SFAIRP requires risks to be reduced so far as is reasonably practicable. To achieve this, the risk must be treated using the hierarchy of controls, with the highest control (elimination) being the most desirable. In the case that a risk cannot be eliminated, the reason for this must be documented. The hierarchy of controls must be considered when identifying possible controls, and justification for adopting or rejecting these options must be clearly documented to comply with SFAIRP principles. In some cases, a combination of measures will be required.

The hierarchy of controls is as follows, from most desirable (elimination) through to least:

- Elimination. Removing or otherwise eliminating the risk.
- Substitution. Substituting the hazard that gives rise to the risk with a hazard that gives rise to a lesser risk.
- Isolation. Isolating the hazard from the person put at risk.
- Design/engineering. Minimising the risk through engineering means.
- Administrative. Minimising the risk through administrative means (for example, by providing appropriate training, or adopting safe work practices)
- Individual (Personal Protective Equipment).



Once a control plan has been developed, the associated likelihood and consequence shall be revised to reflect the anticipated risk level once controls have been applied. Detailed information on the control of risks, hierarchy of controls, and developing control and control plans is contained within the supporting Risk Management Procedure Work Instructions. Within the risk register, a risk should not be categorised SFAIRP until all proposed controls have been either implemented or rejected.

#### Step 5: Monitor and review

Once a control has been implemented, the adequacy and effectiveness of the control must be monitored and reviewed as detailed in the risk control plan. Review periods shall be developed in accordance with Table – Risk Priority Action and Review. The maximum review period shall not exceed three years. Nominated review dates must be entered into the appropriate risk register.

Depending on the type of control, review mechanisms could include:

- Periodic review by nominated risk manager;
- Statistical analysis;
- Formal audit process; and
- Talking to affected people to get feedback on the effectiveness of the control.

Review of a control should take place soon after implementation and then at intervals dependent on the level of risk and anticipated effectiveness of the control. All officers of the company are expected to continuously review risks within their control, and to raise issues of concern with their Manager, General Manager, members of the executive team, General Manager, Risk & Compliance and/or the Risk Manager.

ARTC has in place standing committees with risk management responsibility:

- Executive Committee – management of strategic risks;
- The Risk and Safety Committee – oversees the management of OHS, Rail Safety, environmental, commercial and business risks; and
- Budget, Investment and Major Works Committee – review any risks for the delivery of Major Projects; and
- Information, Communications and Control Systems Sub-Committee – to assess and report upon risk and mitigation strategies and policies.

Through these committees, the CEO and Board are made aware of risk issues and ongoing risks may be monitored and reviewed.

The General Manager, Risk and Compliance or delegate will audit the risk management process and report the findings to the Risk & Safety Committee, which will review this procedure periodically.

The central risk register offers the tools to support the review process and is required to be kept up to date by the relevant Nominated Risk Managers. Managers should review risks and/or controls they are responsible for during the divisional planning process.

## 5.1 Key Records and Reports

### Formal risk assessment

Formal risk assessments must be carried out by appropriately trained personnel and submitted to the relevant General Manager for further action as deemed necessary. Nominated risk managers are responsible for appropriate filing and management of documents in accordance with ARTC Records Management Systems Procedure. Risk assessments are to be planned in accordance with WI 2 – Risk Assessment Process and WI 3 - Conduct Risk Assessment Workshop.

### Risk Registers

Risk Control Plans are to be managed following the risk assessment process. Any significant or ongoing risks should be reviewed against the ARTC risk register and considered for transfer if a gap is identified. Risk registers are to be maintained by the responsible General Manager and Nominated Risk Managers, in accordance with Work Instruction 5 - Risk Register User Guide.

## 5.2 Resource Requirements

In order to conduct effective risk management throughout the organisation, the following resources are required:

- Capable personnel with the ability to conduct Risk Assessments and develop and maintain risk management documentation on an ongoing basis;
- Capable internal auditors as detailed in audit procedures;
- risk registers compliant with legislative requirements; and
- Appropriate risk management procedures and reporting forms.

## 5.3 Reference Documents

This procedure references the following documents:

- AS/NZS ISO 31000 Risk Management
- ARTC Risk Management Policy
- ARTC Risk Management Risk Identification Form
- PP122 New Equipment and Systems Approval
- PP 157 Project Management
- OHSMS Occupational Health and Safety Management System

## 5.4 Associated Procedures

In addition to the above, this procedure has links with the following ARTC procedures:

- SMP-01 Safety Management Plan
- SP-01-04 Safety, Engineering, Operations and Personnel Procedures
- SP-02-06 Safety Documentation and Data Management
- SP-02-07 Safety Management Review
- SP-02-11 ARTC/RailCorp Operating Rules Joint Amendment Procedure

- SP-02-12 Regulatory Notification Procedure for Change Management
- Records Management Systems Procedure

#### 5.5 Referenced Work Instructions

- RMWI 1 Risk Assessment Process
- RMWI 2 Conduct Risk Assessment Workshop
- RMWI 3 Guidelines on So Far As Is Reasonably Practicable
- RMWI 4 Risk Assessment Templates
- RMWI 5 Risk Register User Guide

#### 5.6 Review Frequency

The GM Risk and Compliance will review this procedure annually at a minimum and as soon as possible after identifying changes in circumstances that affect Regulator risk management notification obligations.

The Risk & Safety Committee has responsibility for approving any changes arising from such review.

## **Appendix 9    Record Keeping**



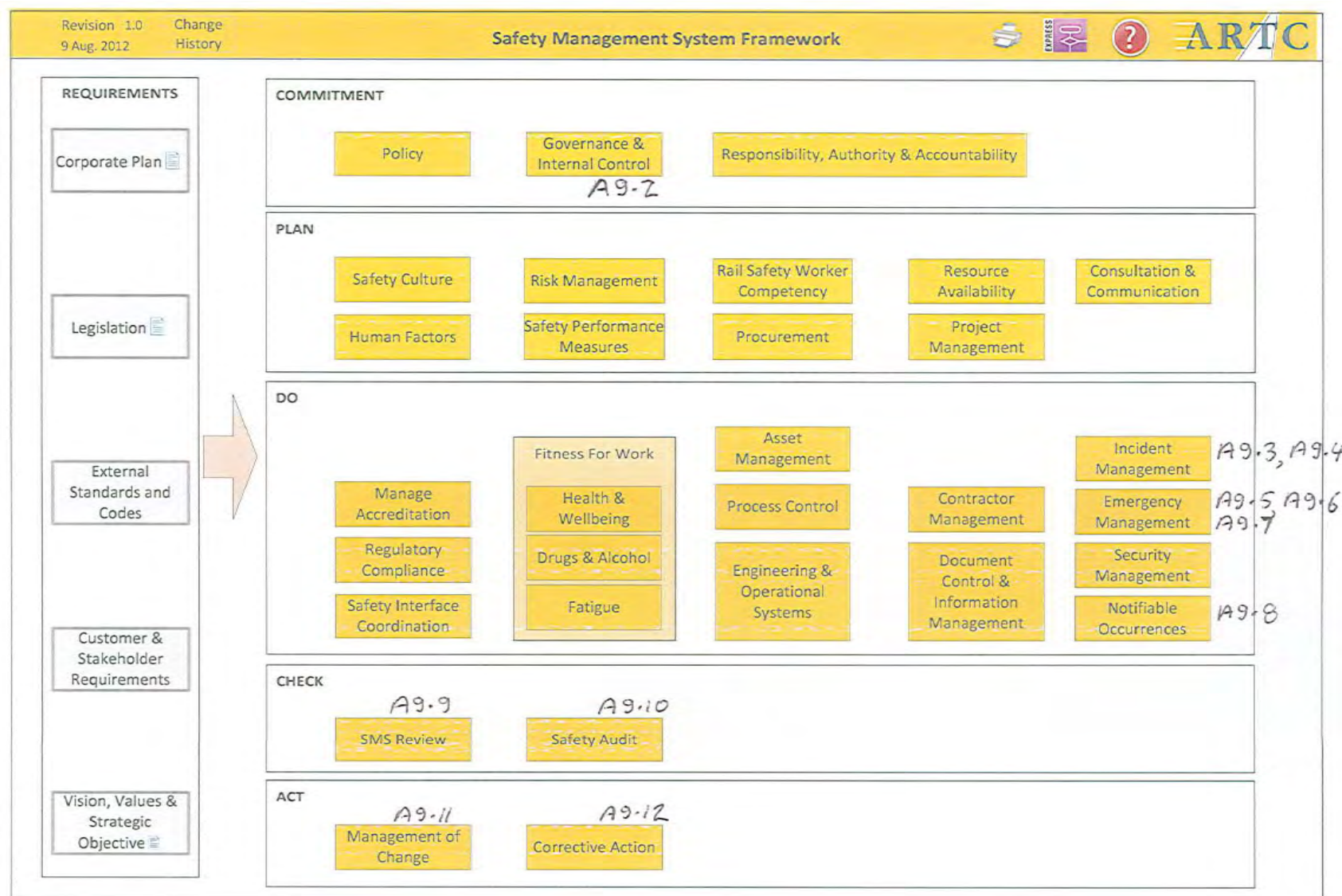
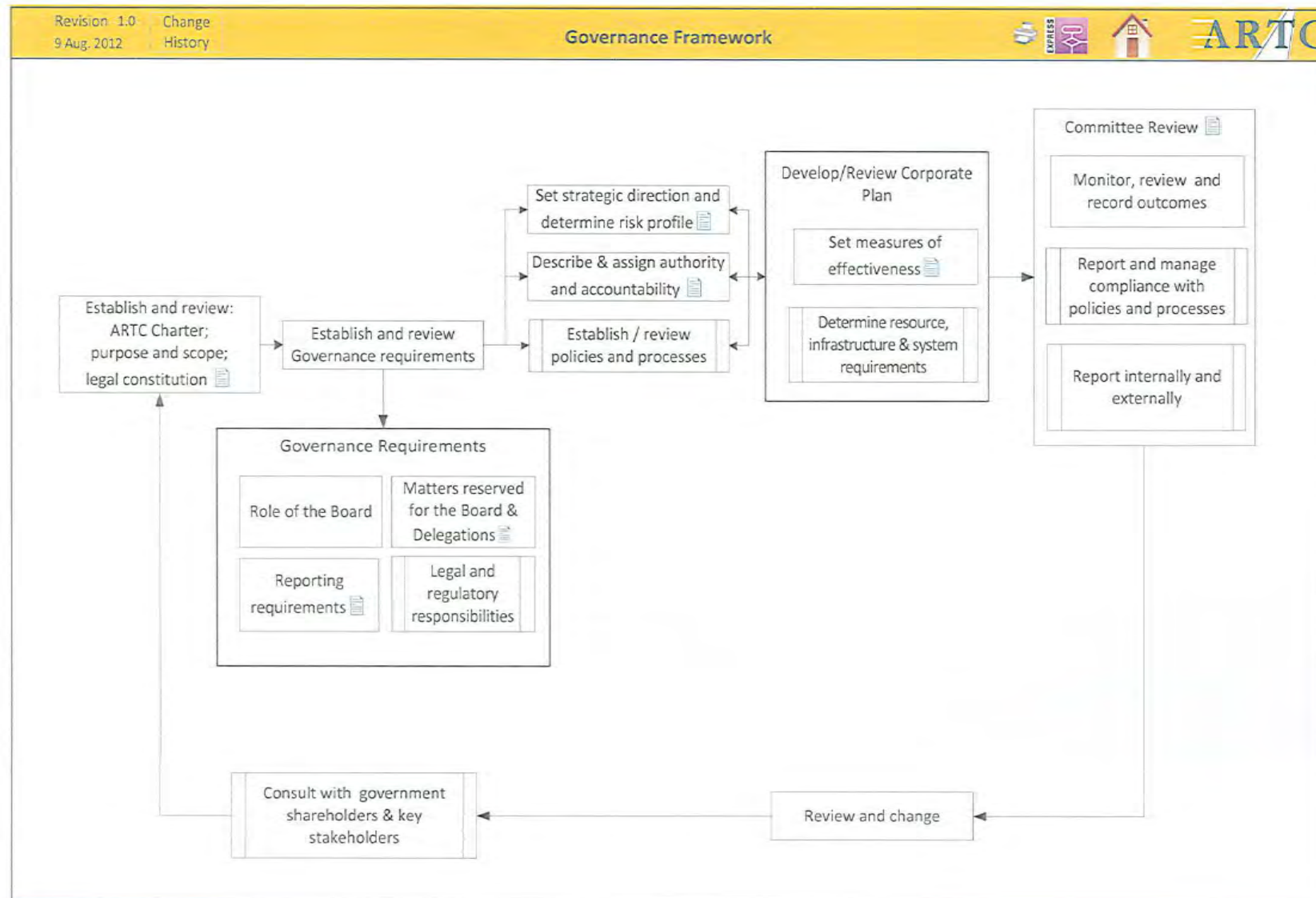
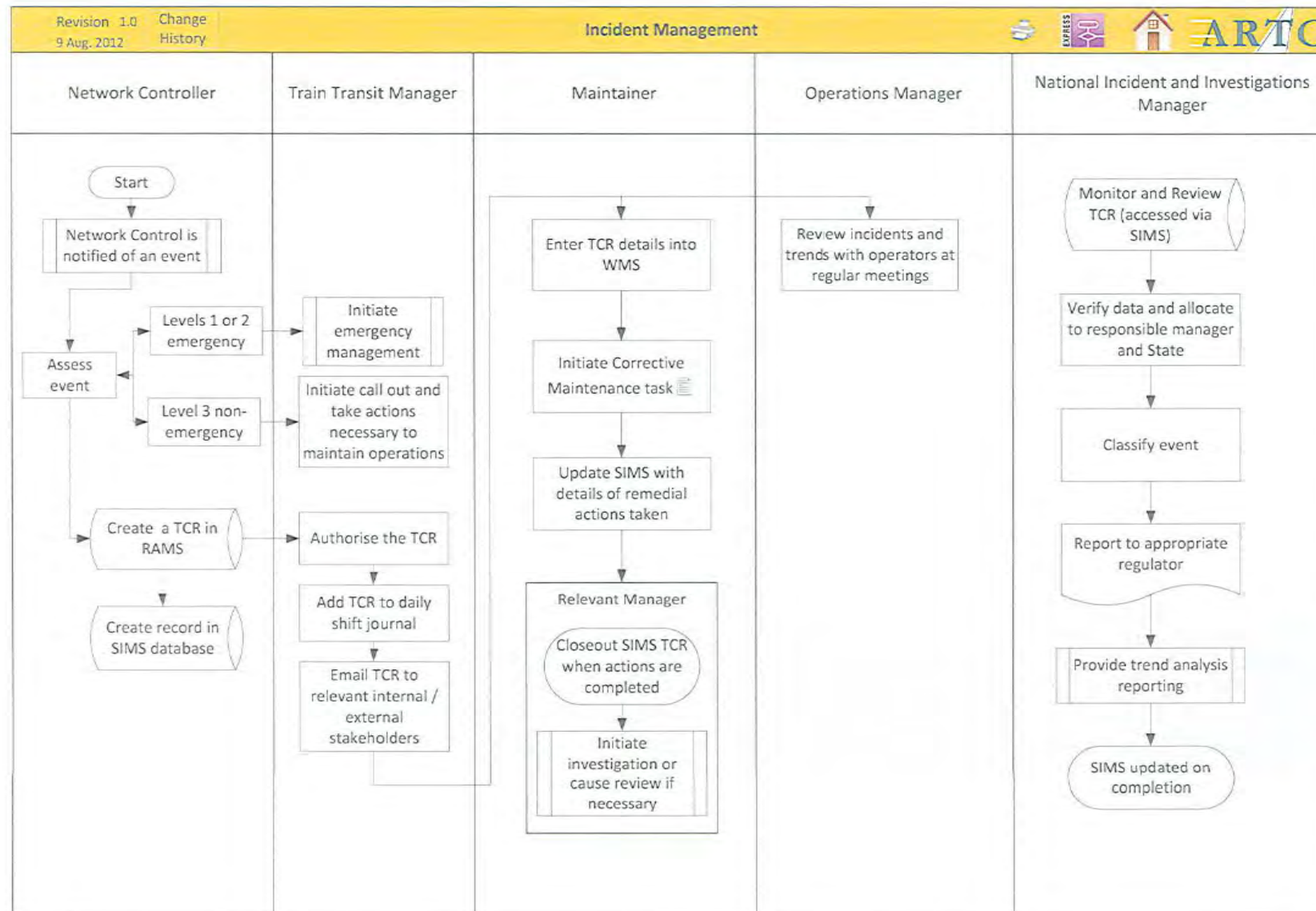


Figure A9.1 Safety Management System Framework showing locations of record keeping in Figures A9.2 to A9.12





**Figure A9.2 Record keeping within the Governance Framework**



**Figure A9.3 Incident Management record keeping**

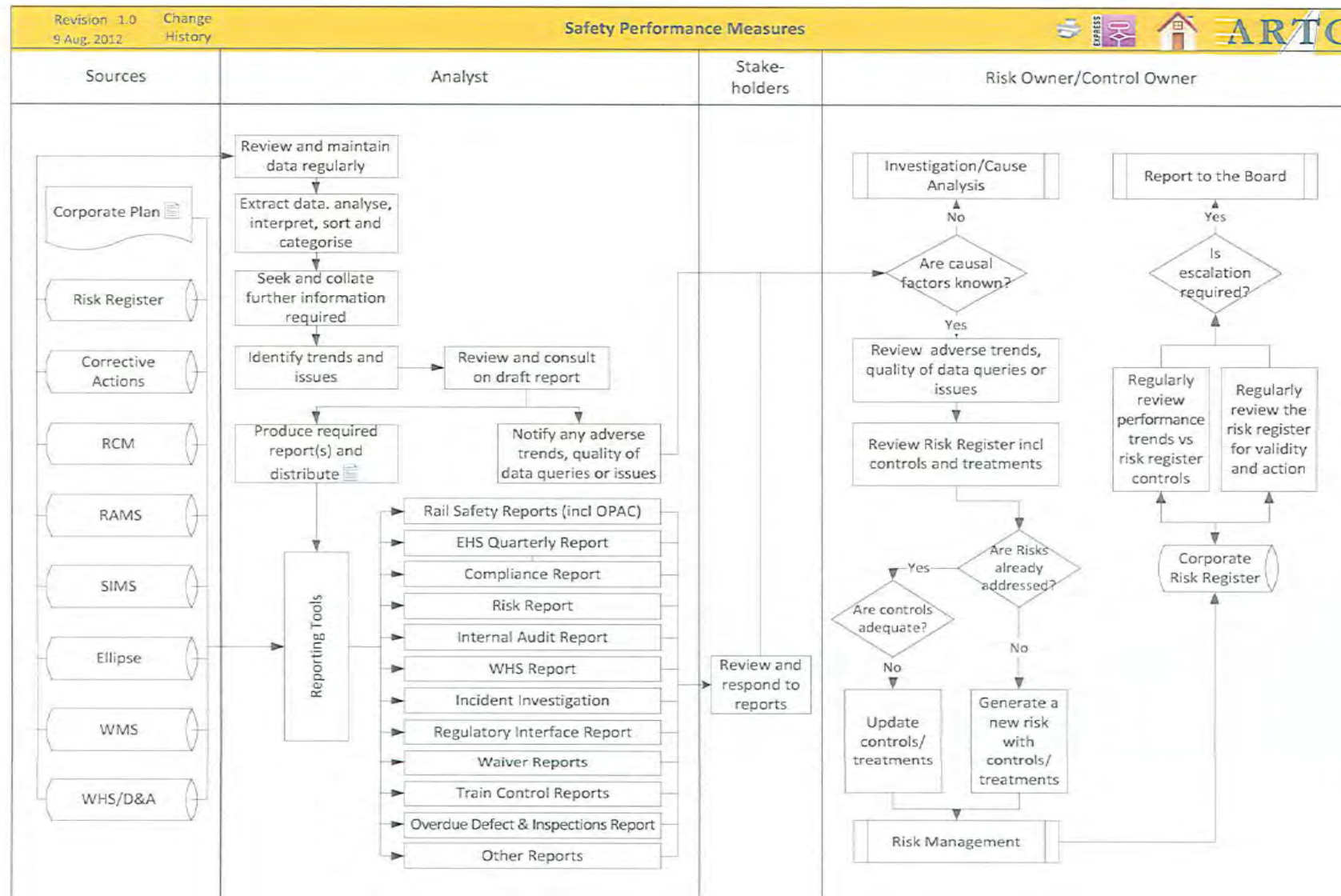


Figure A9.4 Safety Performance Measures reporting

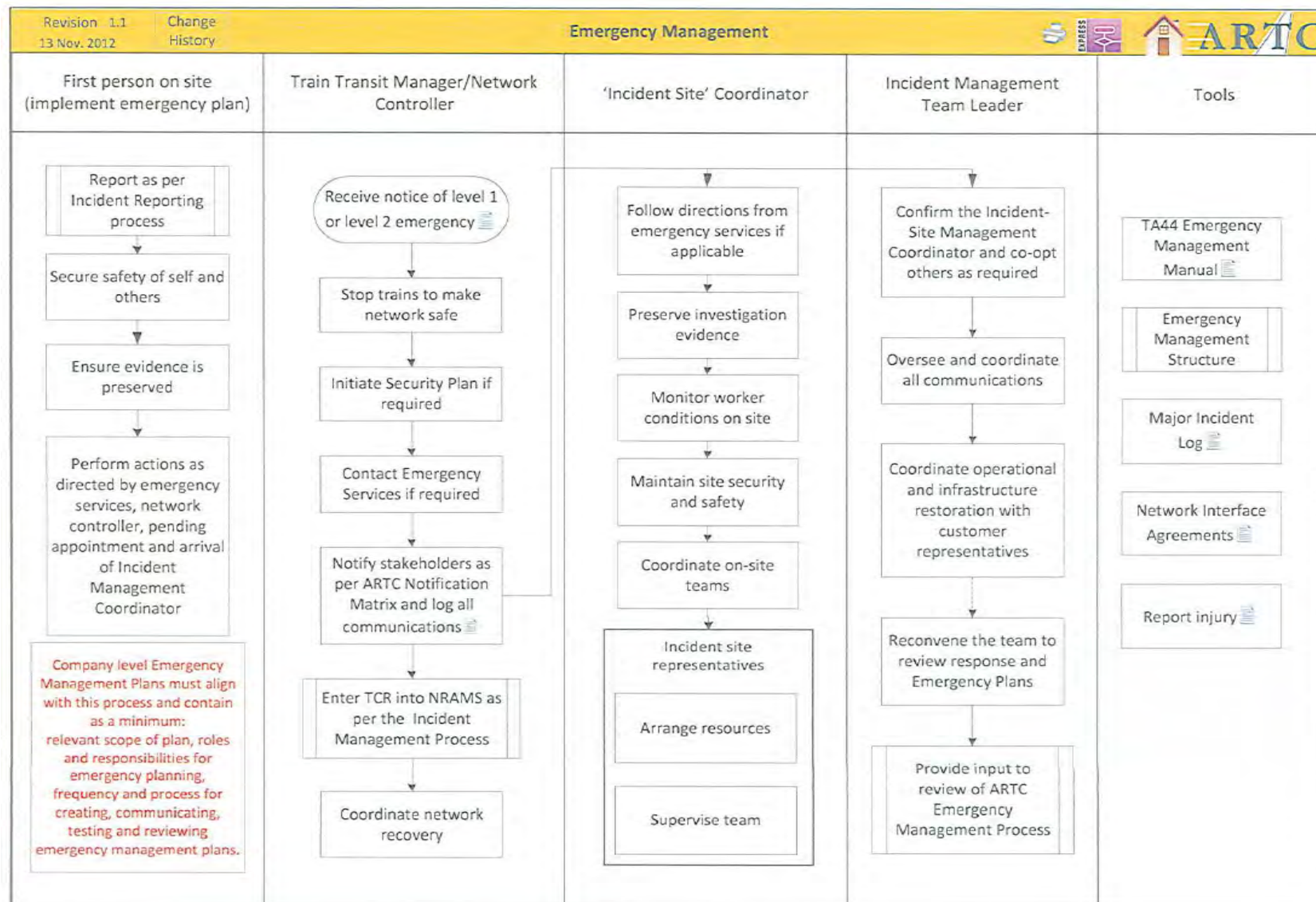


Figure A9.5 Emergency Management record keeping





**AUSTRALIAN RAIL TRACK CORPORATION LTD**

**TRAIN TRANSIT MANAGER – MAJOR INCIDENT LOG**

**(All Times LOCAL to Incident Site)**

Name:.....(Person Completing Log)

Date:...../...../..... Time of Incident .....Hours

Location Of Incident: .....Km in the.....to.....Section.

Incident TCR Number: .....Police Report No:.....

Safety Manager departed for Incident Site (Yes / No) .....Hours

Safety Manager arrived at Incident Site: .....Hours

**Train Details:**

Train Number: ..... Operator .....

Leading Locomotive..... Other Locomotive(s).....

Driver(s) Names.....Depot.....

.....Depot.....

Length of train..... Wagons.....Tonnage.....Metres

Nature of injuries (If Any).....

.....

Dangerous Goods on Train: YES / NO Manifest Requested / Received YES / NO

**Type of Incident:** (eg: Major Derailment, Level Crossing Accident, etc)

.....

**Advised ARTC Management:**

CEO -.....Hours

Operations Manager East/West- .....Hours

Risk & Safety Manager.....Hours

General Manager East./West.....Hours

Mgr Safety & Tech Invest.....Hours

Infrastructure manager East/West: .....Hours

ARTC Loss Assessor.....Hours

ARTC Media Liaison.....Hours

**COMCARE.....Hrs Dept of Transport.....Hrs ATSB.....Hrs**

**Parallel Line Operators Advised:**

CENTROL.....Hours      GWA.....Hours  
 OTHER.....Hours      TRANSADELAIDE.....Hours

**Train Operators Advised:**

PN.....Hours      PN Bulk/Grain.....Hours  
 GWA: .....Hours      QNR.....Hours  
 COUNTRYLINK.....Hours      P&O/Sth Spur.....Hours  
 SCT: .....Hours      GSR.....Hours  
 OTHER.....: .....Hours      OTHER.....Hours

**Emergency Services Advised:**

Police:      Yes / No.....Hours  
 Ambulance      Yes / No.....Hours  
 Fire Brigade/CFS Yes / No.....Hours  
 Flying Doctor      Yes / No.....Hours  
 SES      Yes / No.....Hours

**Interfaces Advised:**

RailCorp Yes / No.....Hours  
 Westnet Yes / No.....Hours  
 TransAdelaide Yes/No .....Hours  
 Other Yes / No.....Hours  
 GWA      Yes / No.....Hours  
 Port Auth Yes / No.....Hours  
 CENTROL Yes/No.....Hours

**Other Services:**

Transfield Nth/Sth Yes / No.....Hours      EPA      Yes / No.....Hours  
 Downer EDI Vic      Yes / No.....Hours      ARTC SC      Yes / No.....Hours  
 Other.....      Yes / No.....Hours      Other.....      Yes/No .....Hours

**ARTC Personnel Attending Site:**

Name:..... Departed for Site:.....Hours Arrived at Site.....Hours  
 Name:..... Departed for Site:.....Hours Arrived at Site.....Hours  
 Name:..... Departed for Site:.....Hours Arrived at Site.....Hours

**Additional Personnel Attending Site:** (Eg. Loss Assessors, Comcare, Doctors, etc)

Name: .....Title: ..... Company: .....  
 Name: .....Title: ..... Company: .....  
 Name: .....Title: ..... Company: .....



<b><u>Incident Site Attendance ETA:</u></b>		
<b>Emergency Services:</b> .....	hrs	<b>(Ambulance/Fire/Police)</b>
<b>ATSB:</b> .....	Hrs	Contact Name: ..... Contact No: .....
<b>Recovery Equip</b> .....	Hrs	Contact Name: ..... Contact No: .....
<b>Transfield/Works</b> .....	Hrs	Contact Name: ..... Contact No: .....
<b>Sigs/Comms</b> .....	Hrs	Contact Name: ..... Contact No: .....
<b>Operator Rep</b> .....	Hrs	Contact Name: ..... Contact No: .....

<b><u>Incident Site Supervisor:</u></b>			
Name: .....	Company:.....	Telephone No: .....	Time.....
Name: .....	Company:.....	Telephone No: .....	Time.....
Name: .....	Company:.....	Telephone No: .....	Time.....

[illegible]

## **TRAIN TRANSIT MANAGER – MAJOR INCIDENT LOG**

[illegible]

**INCIDENT SUMMARY:**

.....

.....

.....

.....

.....

.....

.....

.....

**Normal Operations Resumed at: .....Hours and all relevant Personnel / Operators advised.**

NAME: .....TTM

SIGNATURE: .....

DATE: ...../...../.....

Supporting Info	Actioned	Supporting Info	Actioned
Voice Tape Requested	YES / NO	Copy Train Auth	YES / NO
Signal Log Requested	YES / NO	Copy Graph	YES / NO
Loco Logger Requested	YES / NO	Breath Analysis	YES / NO
Consist Copy	YES / NO		

*NB: To Be Filed In Incident File In TTM's Office With All Other Supporting Documentation, etc, When Complete.*

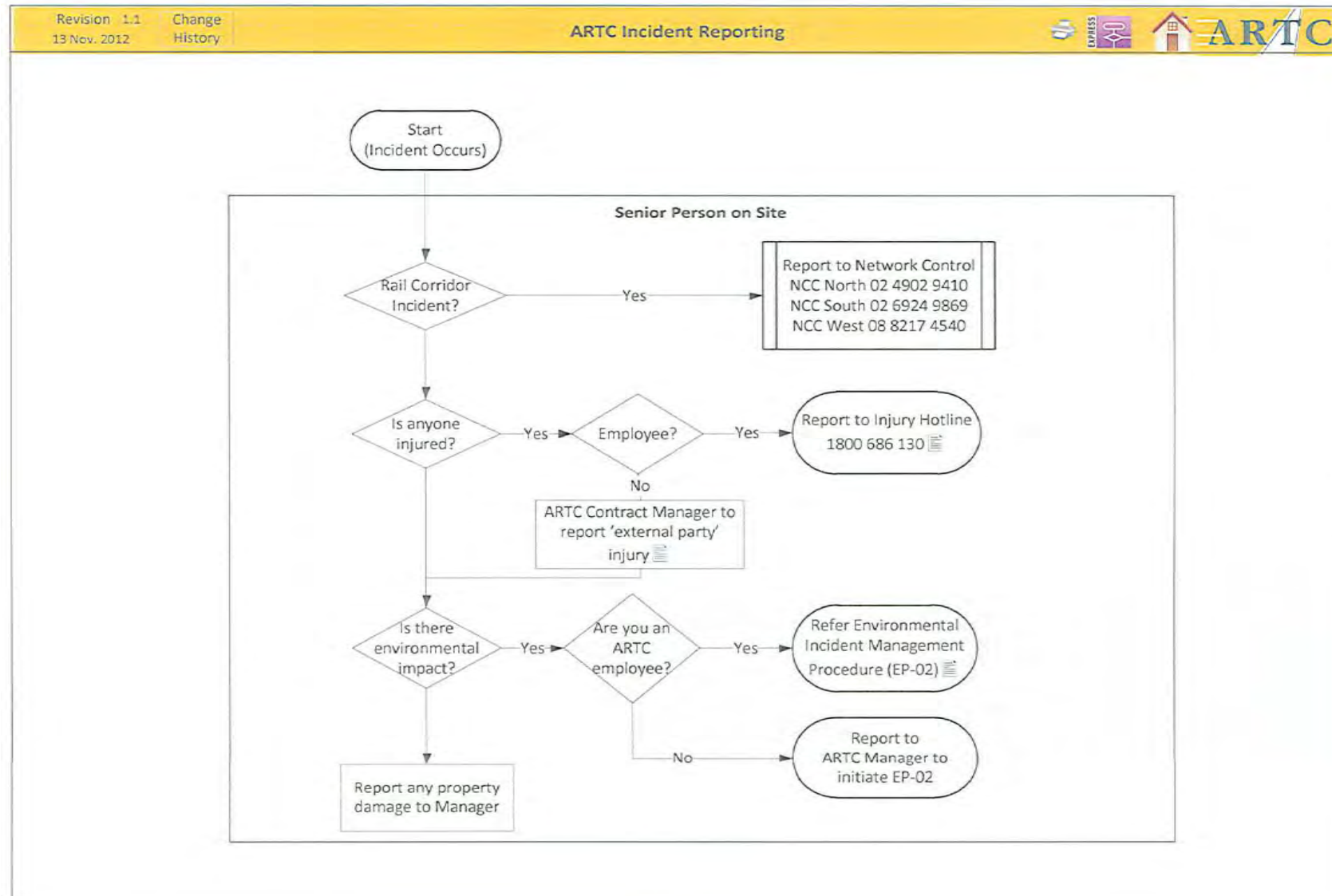


Figure A9.7 Incident reporting

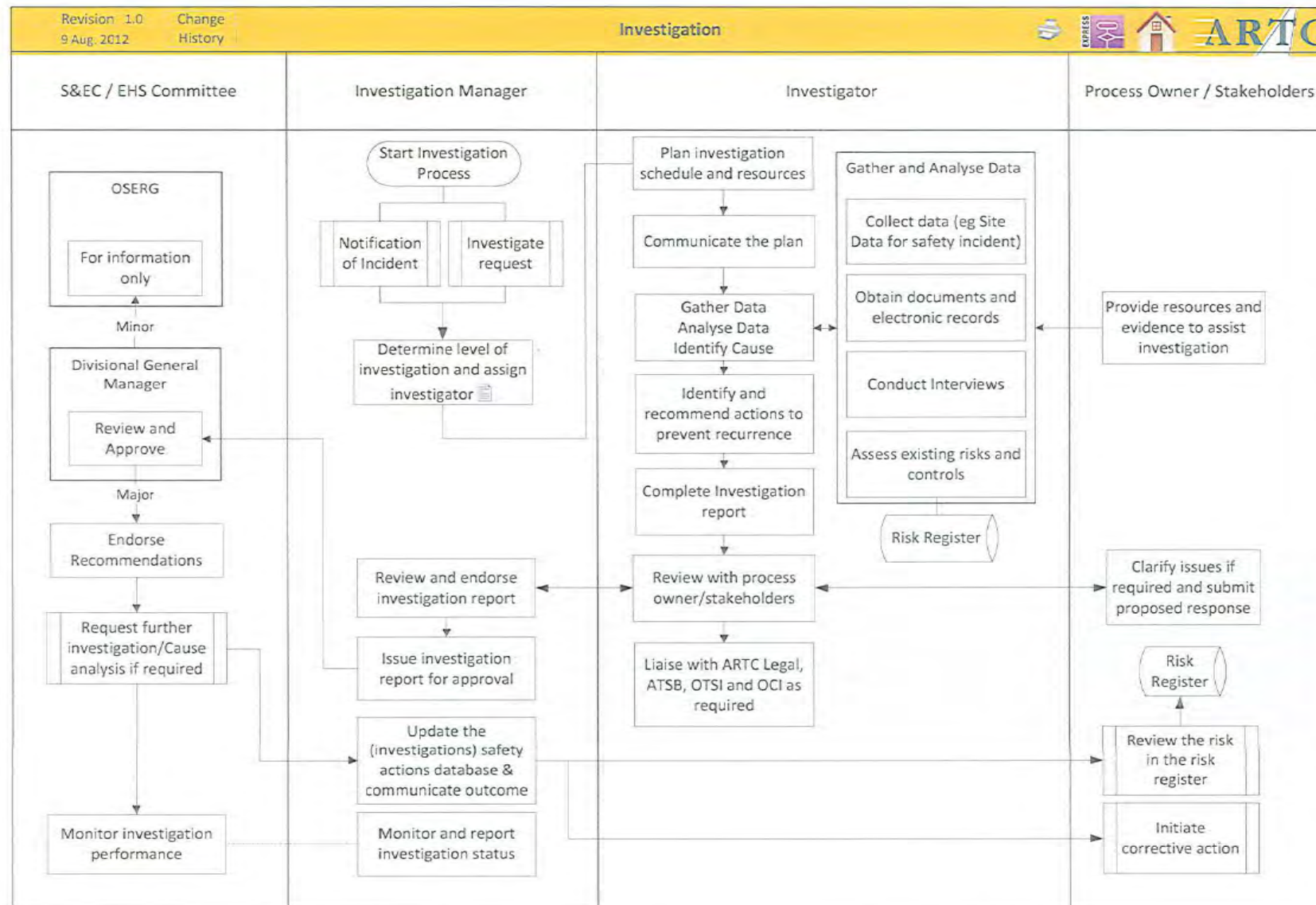


Figure A9.8 Record keeping for Investigations as part of Notifiable Occurrences

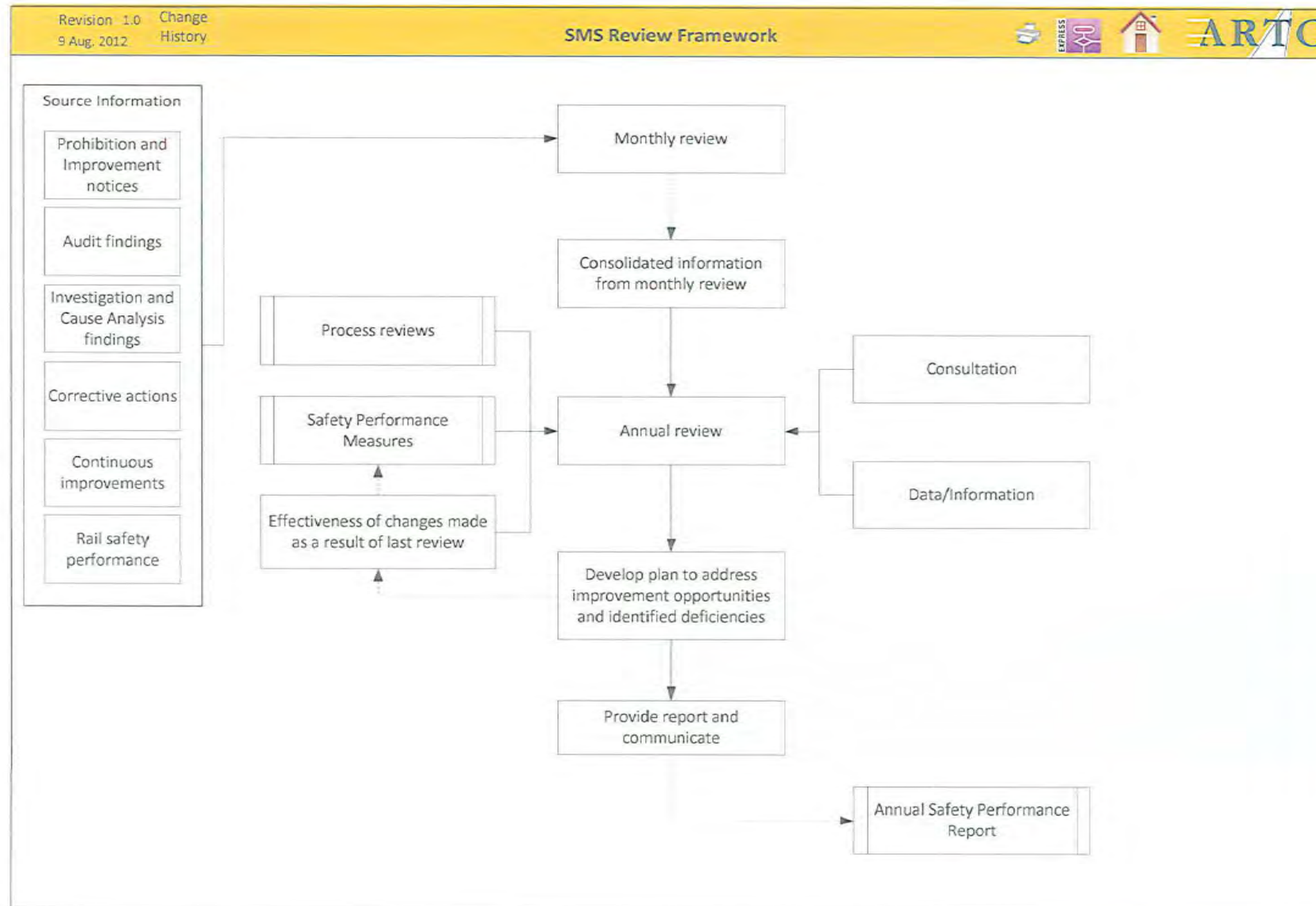


Figure A9.9 Reporting as part of the SMS Framework



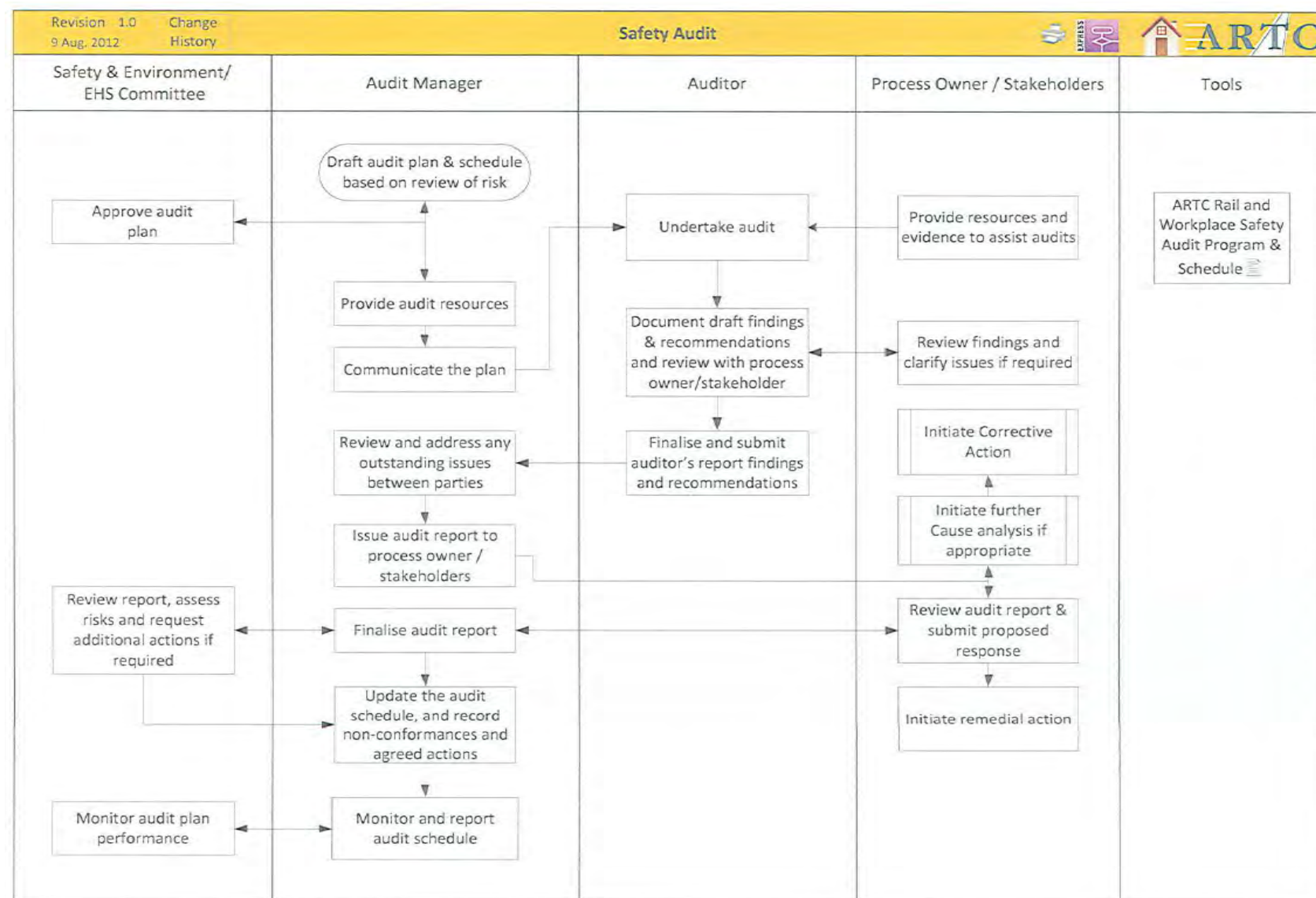


Figure A9.10 Safety Audit record keeping

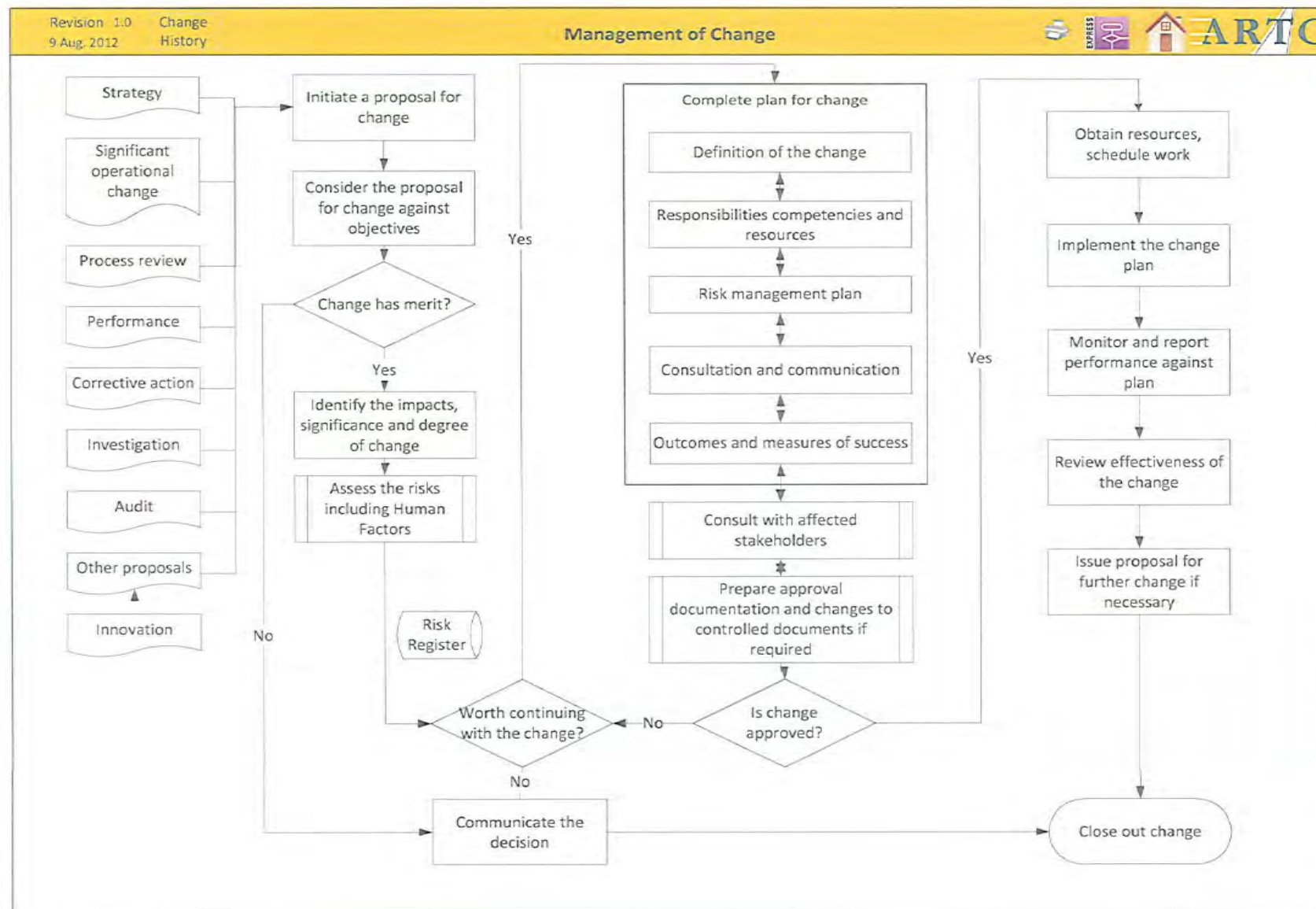


Figure A9.11 Record keeping for Change Management

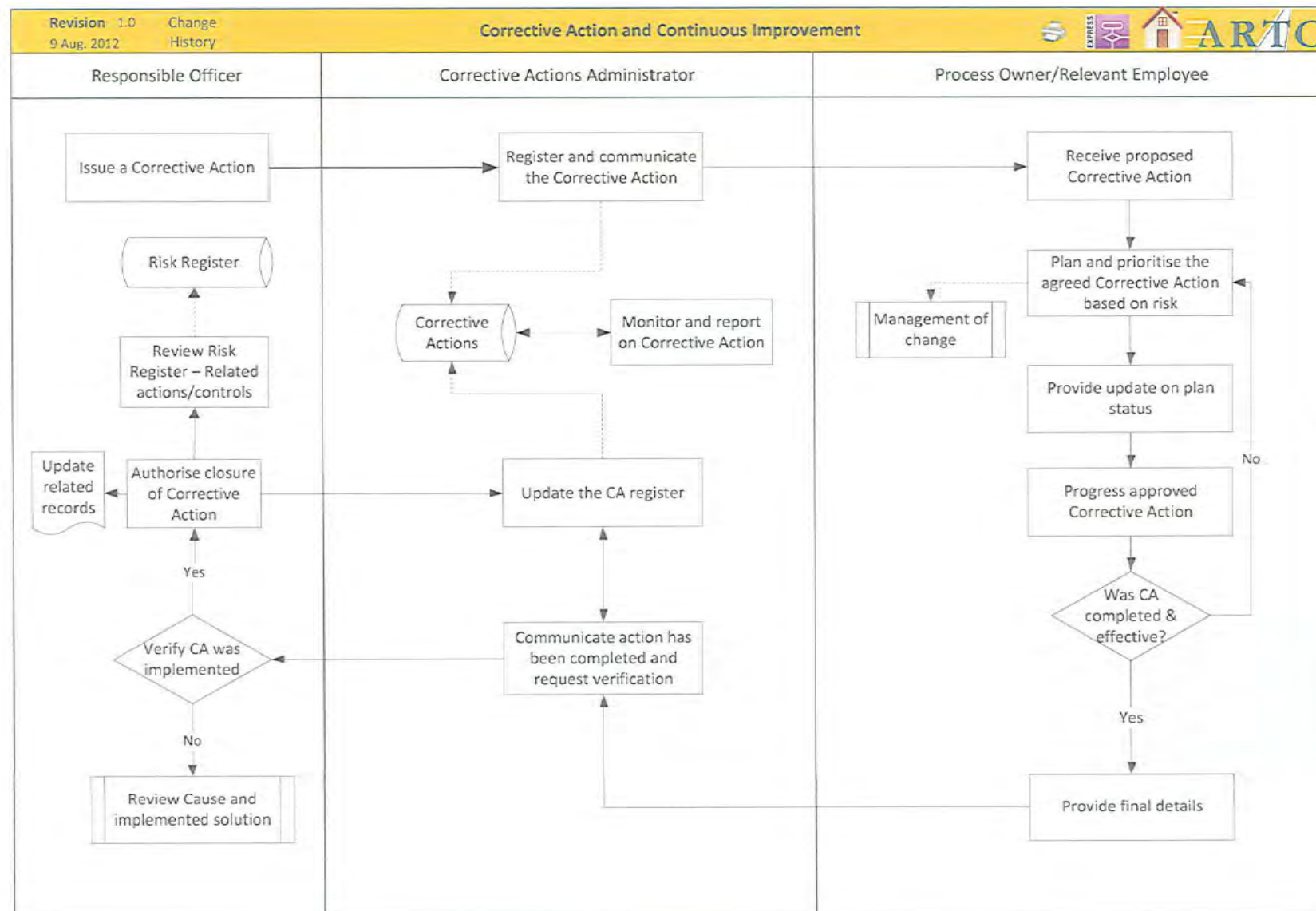


Figure A9.12 Reporting Corrective Actions