OP 1.2.3
Operational Protocol
for
Working in the
Rail Corridor

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FOR

WORKING IN THE RAIL CORRIDOR

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Dictionary

Appliance	An operational firefighting vehicle with visible and audible warning devices.
ARTC	Australian Rail Track Corporation (ARTC), the Federal Management Agency for the rail corridor, outside of the electrified rail corridor. This includes the area of New South Wales outside of the area bounded by Hamilton Junction (Newcastle) in the north, Bowenfels (Lithgow) in the west and Bomaderry (Kiama) on the south coast and Macarthur in the south. The ARTC manages this corridor under a 60 year leasing arrangement between the Australian Federal Government and the NSW State Government as of September 2004. ARTC has responsibility for the rail corridor and the maintenance of lines; it manages the timetables for the movement of freight across the rail system, but does not own rolling stock.
Emergency	An emergency due to an actual or imminent occurrence (such as fire, flood, storm, earthquake, explosion, accident, epidemic or warlike action) which: (a) endangers, or threatens to endanger, the safety or health of persons in the State, or (b) destroys or damages, or threatens to destroy or damage property in the State, being an emergency which requires significant and co-ordinated response.
Emergency Conditions	The presence of a sudden state of danger requiring immediate action by the emergency services.
Fire Control	Refers to the District/Team/Zone Fire Control Officer, delegated and authorised staff or S44 Incident Controller, managing firefighting authorities at the emergency incident.
Line side access tracks	Roads beside rail tracks that are provided for access by rail maintenance vehicles.
Railcorp NSW	Railcorp NSW own and manage the electrified rail corridor, on behalf of the NSW State Government, within the Greater Sydney Area bounded by Newcastle, Lithgow and Kiama. Railcorp owns the lines, the rolling stock and buildings and controls the lines, timetables, employment and all train movements within its area of responsibility.
Rail Management Centre (RMC) {Railcorp}	The centre provided by Railcorp to manage the operation of Railcorp's rail network and other networks as contracted.
Train Control Centre (TCC) {ARTC}	A control centre used by the ARTC to manage the operation of train movements within the ARTC Network and some private sidings.
Rail Protection Officer	Rail personnel who provide protection for workers in the rail corridor.
Rail Staff	Personnel employed by the railways which includes railway officers and rail protection officers.
Rail Representative	Personnel employed by the railways.
Running Lines	A line which is used for movements of trains.
Site Specific Induction	If required, an induction into the site specific hazards associated with the work to be performed.

1. Links

- *[Rural Fires Act 1997](#)*

2. Superseded Procedure

- Fireground SOP #11Part H Railway Incidents

3. Purpose

3.1   *Section 27 "Permission of SRA or RIC required" of the [Rural Fires Act 1997](#)* as amended states that you may not exercise any function in relation to land or property vested in, or under the control of "Railways" without the permission of the Authority or Corporation or a person authorised by the Authority or Corporation to give permission.

3.2   These *Working in the Rail Corridor* SOPs establish a framework for members and staff whilst involved in emergency and planned operations and must be followed at all times and without exception.

3.3   Emergency operations may include bush fires, structural fires, signal box fires, level crossing accidents, train fires, train crashes, derailment, first response to hazardous materials incident, terrorist attacks, etc., and planned operations may include hazard reductions, track maintenance, training exercises, etc.

3.4   The NSW Rural Fire Service (NSW RFS) has a duty of care and a responsibility under the provisions of Occupational Health and Safety (OH&S) for the safety of its members and other persons in the vicinity whilst undertaking activities on or adjacent to the NSW rail corridor and to mitigate all associated risks.

3.5   This operational protocol should be read in conjunction with other NSW RFS policies, service standards, incident management procedures and SOPS relating to incident management.

3.6   This document has been prepared in consultation with Railcorp NSW (Railcorp) and Australian Rail Track Corporation (ARTC). Railcorp own and manage the electrified system within the Greater Sydney Area bounded by Newcastle, Lithgow and Kiama and ARTC manage the remainder of the State. Refer to *Definitions* for the detailed description of Railcorp and ARTC. In the first instance, contact must be made with one of these organisations for managing emergencies or planned activities, as both operate within the jurisdiction of the NSW RFS in rural fire districts.

3.7   The NSW Rail Network consists of single and multiple tracks and trains may approach from either direction. There are a number of private sidings that have been identified but these must be dealt with by the district manager on a case-by-case basis in conjunction with the appropriate authority.

3.8 If NSW RFS personnel cause any damage to any rail infrastructure, they must report the incident as soon as practicable to their fire control who will then advise the Train Control Centre (TCC)/Rail Management Centre (RMC).

4. The Rail Corridor

4.1 In much of NSW the rail corridor is a single line track with passing points that allow movement of trains in both directions. The Hunter Valley consists of multiple tracks.

Typical single rail corridor in country NSW
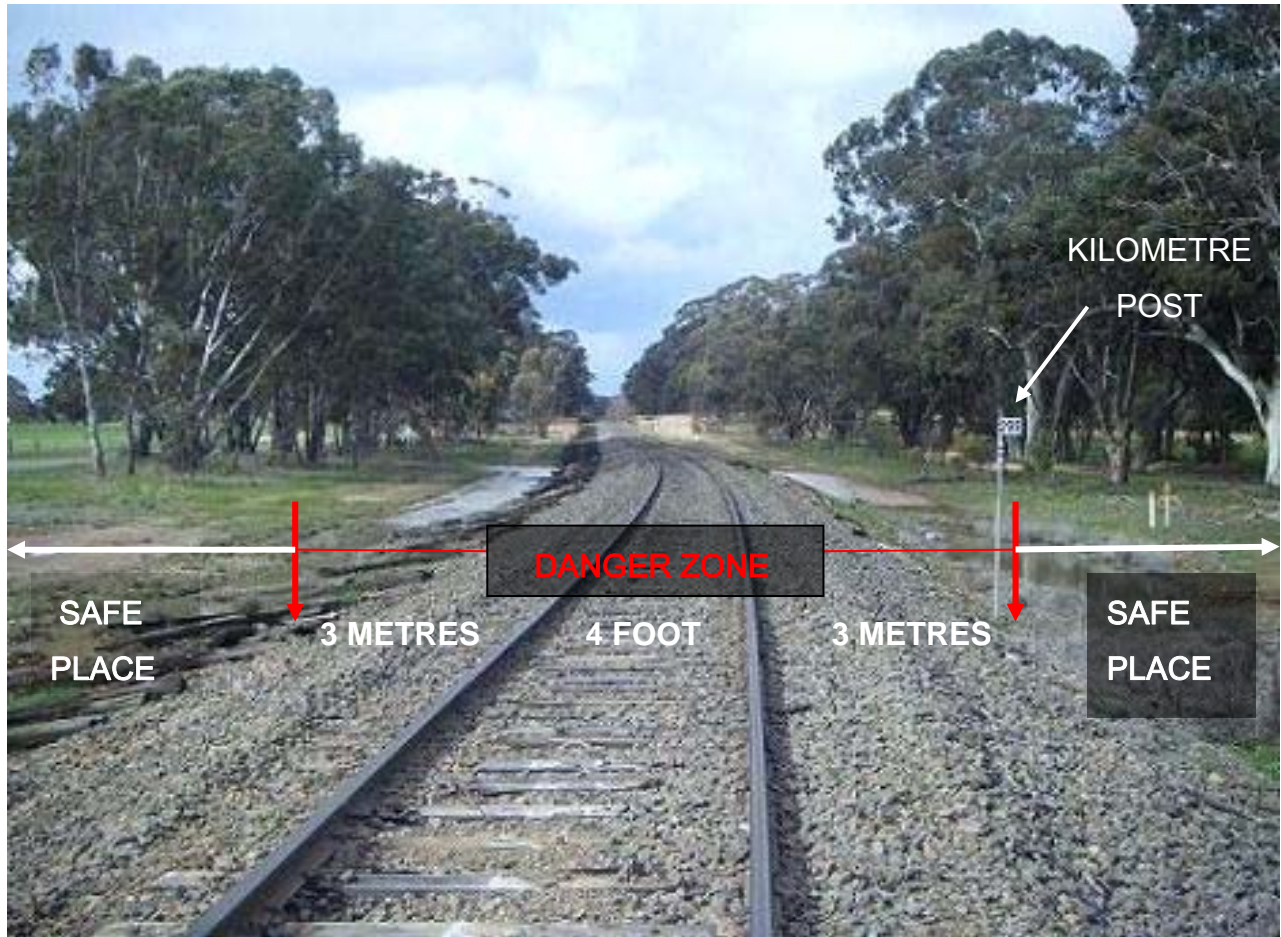
4.2 There are also a number of private sidings in NSW, in most cases they are on private property and do not come under the direct control of TCC/RMC, however, they may control the movement of trains within these sidings. These private sidings should be identified by the District and appropriate liaison established with the appropriate authority and/or land manager.

Typical Rail Corridor in and around Sydney with overhead wires
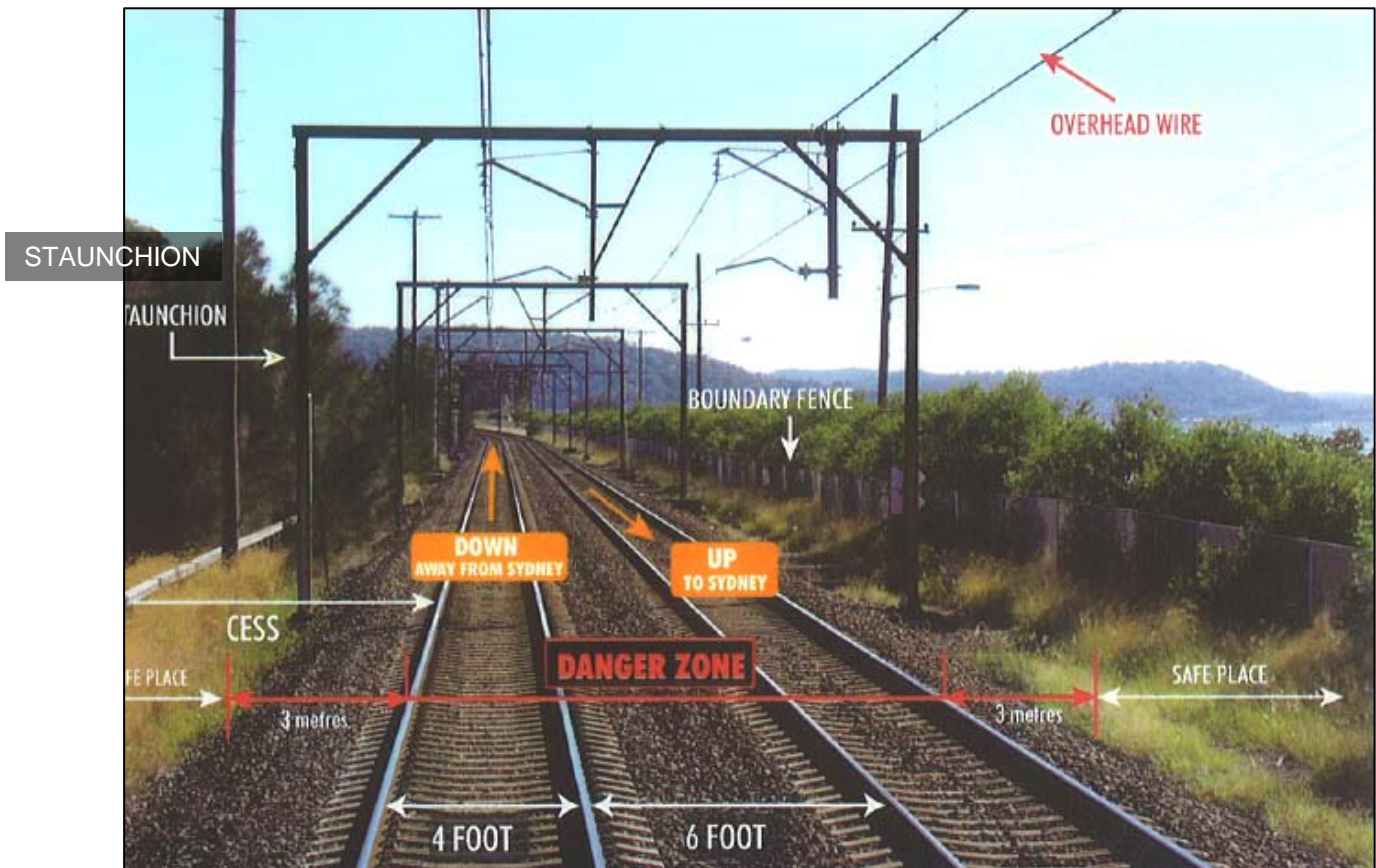
Danger Zone	Everywhere within 3 metres horizontally from the nearest rail unless a safe place exists or is created
Safe Place	A place where employees and equipment cannot be struck by rail traffic. *Anywhere within the rail corridor is still considered a dangerous place!*
Four Foot (1.2 Metres)	The area between the rails of a track. Note: the use of feet is standard rail terminology.
Six Foot (1.8 Metres)	The area between the rails of adjacent track. Note: the use of feet is standard rail terminology.
Cess	The area between the outermost rail and the Rail Corridor boundary
Up Track	Usually a dedicated track for train services to Sydney (Trains could approach from any direction at **ANYTIME**)
Down Track	Usually a dedicated track for train services away from Sydney (Trains could approach from any direction at **ANYTIME**)

5. Identifying Your Location in the Rail Corridor

5.1 On arrival at any incident or location where entry into the rail corridor is required, it is important to relay to the fire control centre your exact location.

5.2 As seen below, use identification markers shown on staunchions, signals and kilometre posts to reference your location.

6. Hazards and Precautions

6.1 When working in the electrified rail corridor, NSW RFS personnel should be aware that the 1500V DC supply to the overhead wire has not necessarily been removed even when trains are stopped, unless specifically confirmed. This confirmation must be from the RMC to fire control, and not from a rail employee on site.

6.2 All overhead 1500V DC lines should be considered 'live' unless specific confirmation has been received from the fire control centre. This is referred to as a "rescue power outage" as issued by RailCorp.

6.3 Aluminium ladders should never be used where overhead wiring or power transmission is evident within the corridor.

6.4 Within the electrified corridor and in fact at any train incident, great caution is to be exercised if using water as trains, including interstate passenger and some freight trains, have three phase power running through them. If it has not been confirmed that the power has been removed, then only clean water should be used. Alternatively, in an emergency, clean water may be applied through a NSW RFS approved nozzle in broken streams falling onto the fire in accordance with safe working procedures and observing "no-go-zones".

6.5 In the event of any dangerous trees or power poles, with the potential to fall into the rail corridor, being identified either through fire or another incident, the OIC should advise fire control, who in turn must advise the TCC/RMC as soon as possible.

6.6 NSW RFS personnel should be aware that many line-side access tracks are not regularly maintained and many are dead-end tracks without the provision for turning an appliance around. If this situation is encountered, the vehicle should be reversed out using normal NSW RFS driving procedures. Alternatively, the OIC must seek approval from fire control to enter the danger zone to turn the appliance.

6.7 NSW RFS personnel should also be aware that even with dual tracks, an individual track may be shut down so trains may come from either direction on the same track.

7. Personal Protective Clothing

7.1 All NSW RFS personnel, whether volunteer or salaried, must wear appropriate personal protective clothing whenever they are within the rail corridor to allow train drivers and their guards a better opportunity to see them.

8.   Operational Procedures

Responsibilities

Fire Control's Responsibilities

8.1   The role played by fire control is critical in relation to the safe and effective management of NSW RFS personnel working within the rail corridor.

8.2   For any entry into or across the rail corridor, fire control must contact the TCC/RMC (refer to Appendix 1 for contact details) to seek approval.

8.3   Fire control will, subject to a risk assessment, conducted in conjunction with the TCC/RMC and the field OIC, decide whether the operation will proceed.

8.4   Approval from the TCC/RMC must contain an assurance that all trains have been stopped and that power in the overhead electrified power lines, if applicable, has been removed.   The TCC/RMC must also nominate the rail staff/railway officer/rail protection officer to attend and supervise the operation if required.

8.5   Explicit permission to enter the rail corridor or cross the running line will only be given by fire control to the field OIC of NSW RFS personnel.

8.6   Fire Control is to advise TCC/RMC when the incident is complete and all equipment and crews are clear of the rail corridor.

8.7   During any operation, where the closure extends for say more than 30 minutes, it may be considered necessary by TCC/RMC to open the rail corridor for a short time to allow the transit of a passenger train.   If this can be safely accommodated without hampering the operation, it should be managed in accordance with these procedures.

8.8   Fire Control shall ensure that communication is maintained at least every 30 minutes with TCC/RMC.

Requirements from the Train Control Centre/Rail Management Centre to NSW RFS Fire Control

8.9   Provide approval to enter rail corridor including:

(a)   confirmation that all trains have been stopped;

(b)   confirmation that power to overhead electrified power lines, if applicable, has been removed;

(c)   confirmation that it is safe for NSW RFS crew/s to proceed;

(d)   identification of entry points in consultation with fire control; and

(e)   nomination of the rail staff/railway officer/rail protection officer to attend and supervise the operation if required.

8.10 Mobilise the appropriate rail staff/railway officer/rail protection officer and advise fire control.

8.11 Ensure that train drivers are advised of the activities and the NSW RFS presence within the corridor and that TCC/RMC will make the decision to stop trains as necessary.

8.12 TCC/RMC must confirm with fire control that all equipment and crews are clear of the rail corridor prior to the rail corridor being reopened.

Incident Controller/OIC's Responsibilities

8.13 The Incident Controller (IC) is responsible and accountable for the safety of all personnel at an incident and each NSW RFS OIC is responsible and accountable for all personnel under their direct control as well as other persons in the area.

8.14 The OIC of the NSW RFS personnel will not enter or cross the rail corridor without receiving the explicit instruction from their fire control that the TCC/RMC has confirmed that all trains have been stopped, that power to overhead electrified power lines has been removed and that it is safe for crew/s to proceed. The instruction must also nominate whether a rail representative is to attend and supervise the operation.

8.15 The OIC will not proceed until the rail representative (only if required by the TCC/RMC) arrives on scene to escort and oversee the operation in accordance with rail network rules and procedures.

8.16 The OIC ensures that equipment/crew do not come within 1.5m of the underside of any overhead wiring or within 3m of the nearest running rail.

8.17 The driver should remain in the appliance at all times but if this is impractical the vehicle keys are to remain in the ignition and the motor is to be running at all times so that the appliance may easily be moved at any time.

Entry, Crossing and Working in Rail Corridors or Tunnels

> ⚠ *On arrival at any incident or location where entry into the rail corridor is required, it is important to relay your exact location to fire control.*

Safety

8.18 NSW RFS personnel will follow all reasonable directions and any safety related directions given by the rail representative whilst working within the rail corridor or tunnel.

Crossing the Rail Corridor

8.19 NSW RFS vehicles may only cross the rail corridor or running lines at authorised formed, sign posted, public "crossing points" provided all normal safety precautions are taken in accordance with traffic regulations and any "Railways" instructions.

Working in a Rail Tunnel

8.20 Whether electrified or not, it is extremely dangerous and the danger is magnified in the event of a fire in such a confined space.

Requirements for all access

8.21 The following applies whether access is for planned or emergency operations.

(a) No part of the vehicle or any person is to enter the danger zone (within 3 metres of the nearest rail) unless an explicit approval has been received from fire control.

(b) Where the minimum clearance (within 3 metres of the nearest rail) can not be guaranteed, NSW RFS personnel may only proceed on an explicit instruction from fire control that the TCC/RMC confirms that all trains have been stopped.

(c) The OIC ensures that equipment/crew do not come within 1.5 m of underside of any overhead wiring or within 3m of the nearest running rail.

(d) Radio communication is to be maintained throughout the operation between FireCom and the OIC.

(e) Fire control is to maintain communication with TCC/RMC throughout the operation.

Planned access

8.22 This access must be arranged at least 4 months in advance of the date of the planned activity and will be organised with the TCC/RMC through the local Bush Fire Management Committee (BFMC), the Local Emergency Management Committee, the District Emergency Management Committee or direct by fire control.

(a) The Rail Corridor Access Manager will arrange entry points, protection and safety with fire control in accordance with rail network rules and procedures.

(b) Fire control will liaise with the Rail Corridor Access Manager to ensure that advice is given to the TCC/RMC that train drivers are aware of NSW RFS personnel working within the corridor.

(c) Safety controls including a site-specific induction, if required, will be conducted to ensure the safety of NSW RFS personnel whilst operating in the rail corridor.

(d) A rail protection officer must be provided for any planned activities.

Immediate Access for Emergency Operations

8.23 NSW RFS personnel may only enter the rail corridor or tunnel for immediate emergency access when the following conditions are met.

(a) The OIC has advised fire control of the need to enter or cross with as much notice as possible;

(b) Approval has been obtained through the TCC/RMC;

(c) NSW RFS personnel will not under any circumstances enter a **rail tunnel** for any operational duty without the express permission from fire control;

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(d) The OIC has received explicit instruction from fire control that the TCC/RMC has confirmed that all trains have been stopped, that all power to overhead electrified power lines, if applicable, has been removed and it is safe for crew/s to proceed;

(e) The appliance's visible warning devices are activated; and

(f) Upon arrival, the rail staff/railway officer/rail protection officer (if required by the TCC/RMC) will supervise the access and oversee the operation in accordance with rail network rules and procedures.

Entering or crossing rail corridor only

8.24 NSW RFS personnel do not need to await the arrival of the rail staff/railway officer/rail protection officer as long as an explicit instruction has been received from fire control that the TCC/RMC has advised that it is safe to enter the corridor.

8.25 NSW RFS personnel will only unlock gates or cut fences and enter the rail corridor at pre-approved entry points.

8.26 NSW RFS personnel are not to commence fire fighting or other operations in the electrified rail corridor until receipt of an explicit instruction from fire control that the power has been removed at the scene of the incident.
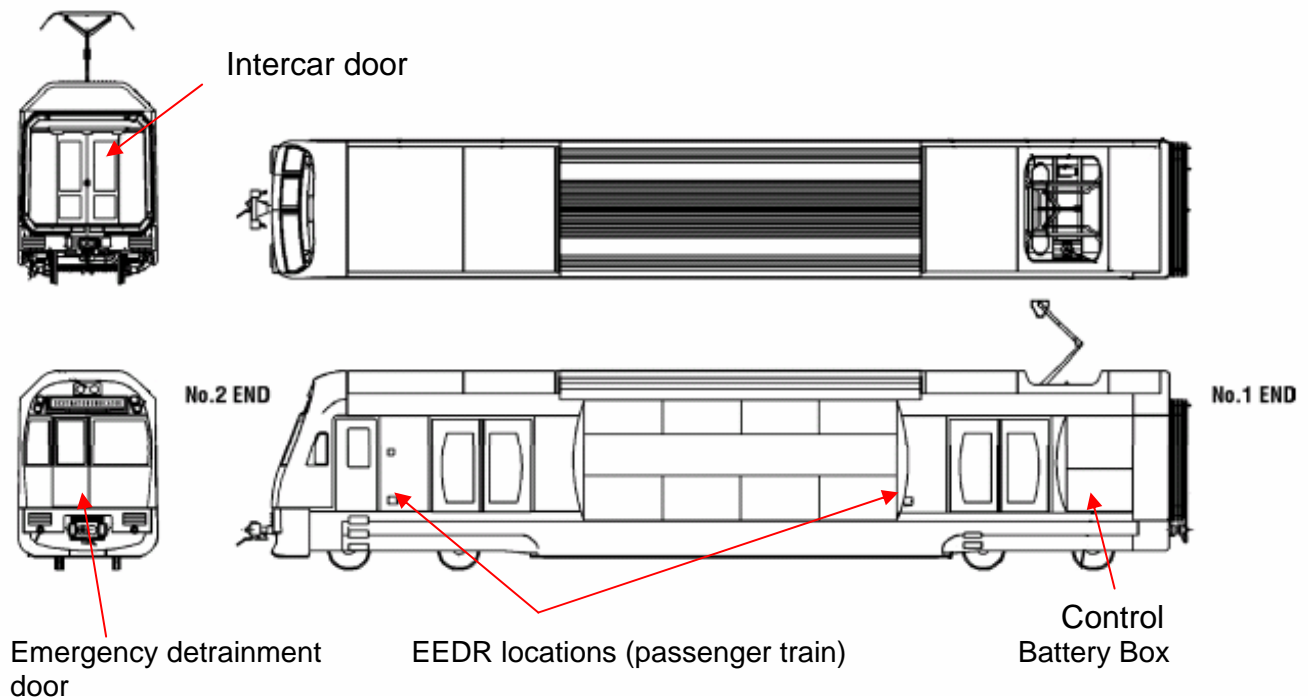
Entering the rail tunnel

8.27 In the case of fire, only enter if qualified and wearing Compressed Air Breathing Apparatus (CABA) in accordance with Service Standard 5.1.9 CABA SOPs and it is safe to proceed.

8.28 The OIC advises fire control once NSW RFS crews are clear of the corridor and/or tunnel.

8.29 The OIC ensures that gates or cut fences at pre-approved entry points are secured at the conclusion of the operation.

8.30 Fire control advises TCC/RMC that NSW RFS crew/s are clear.

9. Operational Guidance

Entry to Rail Carriages, Emergency Door Release

9.1 Whilst attending an incident involving a train there may be a requirement to enter rail carriages for evacuation of passengers or suppression of fire. In order to do so, the External Emergency Door Release (EEDR) must be located and should be operated to open doors. There are two EEDRs located on opposite sides and ends of each carriage near the door itself, look for a green sticker with a running person next to a small hatch.

Example:

Intercar door

No.2 END   No.1 END

Emergency detrainment door

EEDR locations (passenger train)

Control Battery Box

EEDR cover

EEDR Turn handle clockwise to open door.

9.2 Internal Emergency Door Releases (IEDRs) are also provided in the interior of each carriage for the passenger side doors as well as the passenger intercar doors to allow passengers to escape in emergency situations.

WORKING IN THE RAIL CORRIDOR

Procedural Checklist

PRIOR TO ENTRY
- Is it necessary to enter or cross the rail corridor?
- Has a Sitrep been given to Fire Control indicating location, proposed strategy and timeframe?
- Has Fire Control received approval from TCC/RMC to enter the rail corridor?
- Has Fire Control received assurance from TCC/RMC that all trains have been stopped in both directions?
- Has Fire Control received assurance from RMC that power from all overhead power lines has been removed?
- Has TCC/RMC nominated rail staff to attend and supervise? If so, can crews proceed or must crews await the arrival of the rail staff?
- Has OIC received explicit permission from Fire Control that it is safe to enter the rail corridor?

DURING THE INCIDENT
- Have all personnel been briefed that no person or equipment may enter the Danger Zone (within 3 metres of the rail) without approval (confirmation that all trains have been stopped) from Fire Control and Officer in Charge?
- Have all personnel been briefed that no person or equipment may come within 1.5 metres of overhead power lines without approval (confirmation that the power has been removed) from Fire Control and Officer in Charge?
- Are visible warning devices activated?
- Has the driver been briefed to remain with the appliance at all times (but if this is impracticable then the key must be in the ignition) with the motor running?
- Is the OIC maintaining constant communication with Fire Control?
- Has Fire Control provided a SitRep to TCC/RMC at least every 30 minutes?

AT CONCLUSION OF INCIDENT
- Has the OIC secured entry points?
- Has the OIC advised Fire Control that the operation is finished and that all crews and equipment are clear of the rail corridor?
- Has Fire Control advised TCC/RMC that the operation is finished and that all crews and equipment are clear of the rail corridor?

PLANNED ACTIVITIES (in addition to the above)
- Has a specific site safety induction has been carried out?
- TCC/RMC must nominate rail staff to attend and supervise?

Appendix 1

Emergency Telephone Numbers

Emergency Telephone Numbers for use by fire control only

TRAIN CONTROL CENTRE (TCC) {ARTC}	AREA OF RESPONSIBILITY	EMERGENCY TELEPHONE NUMBER
Broadmeadow	Northern	02 4902 9410
Junee	South & South Western	02 6930 5311

RAIL MANAGEMENT CENTRE (RMC) {Railcorp}	AREA OF RESPONSIBILITY	EMERGENCY TELEPHONE NUMBER
Sydney	Electrified Lines	02 9379 1743 / 02 9379 4444