Study Guide

RFERD-1

Emergency Response Driving

NEW ZEALAND FIRE SERVICE Whakaratonga Iwi

NATIONAL TRAINING

EMQUAL EMERGENCY MANAGEMENT QUALIFICATIONS

Status of this document

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- Fire Service Act 1975 s27A – Operational Instructions
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- Fire Service Act 1975
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Contents

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Introduction

Aim

The aim of this study guide is to equip you with the skills and knowledge you will need to become an Emergency Response Driver. This includes:

- knowledge of traffic legislation, traffic regulations and the fire and rescue service provider's requirements
- prepare fire and rescue vehicles for emergency response
- respond to emergency incidents
- drive to, and position emergency vehicles at emergency incidents and complete documentation.

How will this course help me?

Drivers of fire appliances must be confidently able to manage the delicate balancing act of setting the need for responding quickly and safely. As an Emergency Response Driver, you will be required to exercise defensive driving and rapid decision making skills in getting the appliance safely and quickly to an incident without undue risk to crew or general public. This study guide will assist you in achieving this standard.

Prior knowledge

Where a student driver can provide suitable evidence of competency that is directly comparable to the competencies required of the unit standard, that evidence will be assessed by the driving trainer assessor.

Pre requisites

Before you can be appointed as a student driver you will need to hold a full licence for the class of emergency response vehicle for which you intend to qualify. This might be either:

- Class 2 – medium rigid vehicle with a gross laden weight of less than 18000 kgs
- Class 4 – heavy rigid vehicles with a gross laden weight of 18000 kgs or more
- Class 5 – heavy combination vehicles with a gross laden weight of 25000 kgs or more

To apply for a place on the practical driving course you will need to get approval from your manager/employer.

How is this course taught?

The delivery methods will involve:

- self-paced learning
- a practical driving course.

Competency will be demonstrated over time i.e. driving your station's fire appliance on the job. You only become fully qualified when you can demonstrate that you can meet a nationally recognised standard on a consistent basis (this programme has based the standard on the skill level required by Unit Standard 3267).

Disclaimer: This study guide contains broad guidelines on driving a fire appliance. Check with your RFA policy for specific local details on driving policy.

NOTE

In addition to obtaining this unit standard the fire authority may require you to undertake additional training on a specific appliance.

There is a glossary at the back of this study guide with defined terms.

Section 1: Policy and Practice

This study guide is written to encompass the relevant legislation which impacts on it, including, but not limited to, the Health and Safety in Employment Act 1992, the Land Transport (Road User) Rule 2004, the Forest and Rural Fires Act 1977.

Driver Training Practice

Overview

This information is to help enable student drivers to develop the knowledge and skills required to safely operate emergency response appliances.

Driver categories

For the purpose of identifying the driving requirements in the workplace and therefore the training need, driver categories have been aligned with the Land Transport Safety Authority classes of driver's licences. For each of the categories defined below a set of driver competencies is detailed.

1. Class 1 *(formally Class B)* Licence
2. Class 2 & 4 *(formally Class F)* Licence
3. Specialist Appliances

Driver training content

The content of any driver training will:

- Comply with Land Transport Safety Authority requirements as applicable and contained in the Land Transport Act 1998 and the Land Transport (Road User) Rule 2004
- Support achievement in NZQA Unit Standards where they exist.

Operational Vehicles

Purpose

Designated drivers will hold a current valid driver's licence and be qualified (and appointed by their manager) to drive the appropriate category (ies) of vehicle they are assigned to drive.

Categories of driver

Driver categories have been aligned with Land Transport Safety Authority classes of drivers licences, the classes are as follows: Class 1–6 licences: based on the type and weight of the vehicle. The weight of a vehicle is the gross laden weight (GLW) or gross combined weight (GCW).

1. Class 1 Light motor vehicle
2. Class 2 Medium rigid vehicle
3. Class 3 Medium combination vehicle
4. Class 4 Heavy rigid vehicle
5. Class 5 Heavy combination vehicle
6. Class 6 Motorcycles

Legal issues relating to driving

Figure 1: Have licence class to match vehicle driven

SAFETY NOTE

Drivers have a legal obligation to inform their manager/ employer if their licence has been suspended, disqualified or restricted for any reason.

Hazard Identification and Control: Driving Appliances

Hazard Control: All hazards must be controlled by eliminating them, isolating them where elimination is impracticable, or minimising them, using one or more of the control methods given below.

Hazards – Pre-Driving

Tasks	Hazards	Control Measures	Comply with
Appliance Driver	**Significant hazards:** • Loose equipment • State of the appliance • State of driver • Not familiar with appliance characteristics and limitations	• Driver trained, competent and knows the district • Routine and planned maintenance completed • Regular appliance checks to confirm roadworthiness of appliance • Compliance with Land Transport (Road User) Rule 2004 • Any items in appliance cab and outside lockers are secured • Driver health e.g) not intoxicated, under the influence of drugs or ill or fatigued • Familiar with appliance	*Land Transport (Road User) Rule 2004*

Hazards – Response

Tasks	Hazards	Control Measures	Comply with
Appliance/Driver: • Driving environment • Merging into traffic • Moving through traffic • Reversing • Positioning appliance at incident	**Significant hazards:** • Colliding with personnel • Colliding with other vehicle/s • Colliding with obstacles • Adverse weather conditions • Adverse road conditions	• Drive to the conditions • All crew mounted and seatbelt secured before moving appliance • Take all practical steps to have a guide when reversing or negotiating difficult access • Compliance with Land Transport (Road User) Rule 2004 • Compliance with safe driving practices • Appliance positioned appropriately with safety of crew and equipment in mind	*Land Transport (Road User) Rule 2004*

Figure 1.1 Drivers must be trained for the type of vehicle used

Hazards – Post response

Tasks	Hazards	Control Measures	Comply with
Recommissioning Appliance: • Needs to occur immediately on return from response • Condition of appliance inspected • Equipment reinstated	**Significant hazards:** • Loose equipment • Incomplete inventory • Appliance and equipment defects or damage	• Secure all equipment • Replenish used resources • Defects reported to Crew Leader • For serious appliance defects appliance will be placed out of commission and management notified	*Land Transport (Road User) Rule 2004*

Section 2: Legislation

This section contains a broad overview of the legislation that impacts on rural drivers and focuses on the most common issues, in terms of legislative requirements.

Principal Documents/Clauses

Arriving at an emergency incident ***in good time*** is obviously of importance. ***Not arriving at all*** is clearly of greater significance. This is especially true if the fire appliance failed to arrive because it was involved in (or was the cause of) an accident en route. Cases like this have frequently proved to be doubly tragic. Not only has the original emergency incident not been dealt with, but the crash en route has caused casualties as well.

Drivers are called upon to exercise considerable skill under urgency of a response situation, in balancing the need for responding quickly and safely. They must always remember that the paramount response principle always applies – **do not become a casualty yourself – if you do, then you are no good to anybody else and may be the cause of others having to risk their lives for you.** It follows then that drivers must take responsibility for their own safety and that of the crew. Furthermore they must drive in such a manner that they do not risk the safety of the general public, particularly other road users going about their normal business.

For the purpose of driving in non-emergency related situations drivers are bound by the same legislation as other road users.

Legislation

The Transport Act 1998 sets out the legislative requirements for the use of motor appliances on New Zealand roads. As licensed drivers, the drivers of appliances are individually required to be fully conversant with relevant legislation.

Shown below are parts of the Act, which have an important bearing on emergency response driving.

Traffic Regulations and Road User Rules

A number of Acts and Rules specify appropriate behaviour and the requirements on road users. Each extract in this study guide is referenced to its source.

The Minister of Transport can make Rules through a process more flexible than that required to make a new Regulation. The Rules are most easily found on the Land Transport Safety Authority website www.landtransport.govt.nz/rules.

As licensed drivers, Fire Authority drivers are individually required to be fully conversant with the Acts, Regulations and Rules that apply.

The following sections relate specifically to the driving of emergency appliances.

Extract

The Transport Act 1998 – Part 3 Section 22
Driver's duties where accident occurs

1) If an accident arising directly or indirectly from the operation of a vehicle occurs to a person or to a vehicle, the driver or rider of the vehicle must:

   (a) Stop and ascertain whether a person has been injured, and

   (b) Render all practicable assistance to any injured persons.

6) If the motor vehicle involved in the accident is a fire engine or an ambulance travelling to an emergency, the driver complies with subsection (1) if he or she stops the vehicle and sets down a member of the crew who is equipped with a first-aid kit and discharges all other duties imposed on a driver by that subsection.

Land Transport Safety Authority – Log books

The following extract is in regards to the keeping of log books by emergency service drivers.

Extract

Land Transport Rule: Work Time and Logbooks 2007 4.3
Fire Brigades

4.3(4) A driver of a vehicle that is operated by a fire brigade does not have to maintain a logbook.

Land Transport Safety Authority – Driving hours

The following extract is in regards to driving hours that apply to all drivers of emergency service vehicles.

Extract

Land Transport Rule Work Time and Logbooks 2007 Rule 62001 Emergency services

2.2(4) Subclauses 2.2(5) to 2.2(8) apply to a person driving for an emergency service, or working under the direction of a principal rural fire officer.

[Note: 'Emergency' and 'Emergency service' are defined terms.]

2.2(5) Subject to 2.2(6), limits to work time hours specified in the Act may be exceeded if a driver of an emergency vehicle is required to respond to a priority call.

[Note: 'Priority call' is a defined term.]

2.2(7) At the end of a priority call that takes a driver beyond their work time hours, the driver must not undertake further scheduled or routine driving work for the emergency service, but must take the required 10-hour break before undertaking further driving for the emergency service that is subject to work time requirements.

2.2(8) For the avoidance of doubt, volunteer fire fighters and volunteer ambulance drivers are not subject to work time limits, even when they have worked a full day, when they are called out to attend, or are returning from, a priority call.

General requirements – traffic control devices

As an emergency driver you will need to comply with all traffic signs or signals and inclusive of temporary speed limits. The legislated reference for this is the **Land Transport (Road User) Rule 2004** (SR2004/427) **3.1.**

Intersections and traffic signals

The following sections relate specifically to the driving of emergency appliances through intersections and traffic signals.

Extract

Land Transport (Road User) Rule 2004 (SR 2004/427)
Application of clauses 3.1 to 3.4 and 3.6: Traffic control devices and signals

11.18 ..... if the driver reduces speed so as not to exceed 20 km per hour and then proceeds, taking due care to avoid collision with pedestrians and other traffic.

Land Transport (Road User) Rule 2004 (SR 2004/427)
Application of clauses 4.1 to 4.3.4.5 and 4.6: crossing intersections

11.19 Despite clauses 4.1 to 4.3, 4.5 and 4.6, a driver of an emergency vehicle that is displaying a blue or red beacon or blue and red beacons, or sounding a siren, may enter and cross an intersection at a speed not exceeding 20 km per hour, taking due care to avoid a collision with other traffic.

Riding dangerously

The following sections relate specifically to the driving of emergency appliances through intersections and traffic signals.

Extract

Land Transport (Road User) Rule 2004 (SR 2004/427) 7.1
Riding dangerously

(1) A person must not ride in or on a vehicle, or in or on an object conveyed on a vehicle, in a manner or position that may be liable to cause injury to that person.

(2) A driver must not permit a person to ride in breach of subclause (1).

(3) A person must not alight from or board a moving motor vehicle or light rail vehicle.

Speed Limits

Refer to you Fire Authority's policy in relation to emergency response driving.

Extract

Land Transport (Road User) Rule 2004 (SR 2004/427) 5.1
Drivers must not exceed speed limits

(1) A driver must not drive a vehicle at a speed exceeding the applicable speed limit (being a permanent, variable, holiday, urban, rural, temporary, or other speed limit).

(2) .....

(3) A driver who drives at a speed exceeding the applicable speed limit is not in breach of subclause (1) if the driver proves that, at the time the vehicle was being driven,—

(a) .....

(b) The vehicle was an emergency vehicle being used in an emergency and was operating a red beacon or a siren, or both; or…

Stationery school bus passing

There are speed limits that exist when passing a school bus.

Extract

Land Transport (Road User) Rule 2004 (SR 2004/427) 5.6
Speed limits relating to school buses

(1) A driver must comply with subclause (1A) when meeting or overtaking a stopped school bus—

(a) that is displaying a school bus sign and is stopped for the purpose of picking up or dropping off school children; or

(b) that is displaying a specified school bus sign on which the lights are flashing.

(1A) The driver must—

(a) drive with due care for the safety of the children; and

(b) drive at a speed not exceeding 20 km per hour while passing any part of the school bus.

(2) A driver must not drive on a road at a speed exceeding 80 km per hour any school bus that has a gross vehicle mass exceeding 2000 kg.

School zones

Where school zones are sign posted the stated speed restriction must be observed.

Bylaw

A road controlling authority must set a variable speed limit in a school zone by making a bylaw in accordance with **Land Transport Rule: Setting of Speed Limits 2003.**

Vehicles without siren and beacons

Any appliance not fitted with beacons and sirens (warning device) must abide by normal road user legislation while responding to an emergency. Orange hazard warning lamps should not be used when mobile when driving to an emergency. See **Land Transport (Road User) Rule 2004 (2004/427) 8.6** for details on this.

Extract

Land Transport (Road User) Rule 2004 (2004/427) 7.4 (4)(a)
Noise

(4) Without limiting any enactment other than this rule, the following are authorised:

(a) the use of sirens fitted to emergency vehicles being used on urgent occasions:

Use of beacons and siren

Beacons and sirens must not be fitted or modified without authority of the RFA.

Extract

Land Transport (Road User) Rule 2004 (2004/427) 8.5
Use of beacon

1) A person must not operate a beacon fitted to a vehicle unless the beacon has been approved for fitting to the vehicle, and is—

(a) .....

(b) a red beacon fitted to an emergency vehicle that is being operated in an emergency; or

(2) A device that allows headlamps to flash alternately may be used by—

(a) an emergency vehicle being operated in an emergency:

(3) The device referred to in sub-clause (2) may not be used during the hours of darkness.

Making way because of beacons and siren

Extract

Land Transport (Road User) Rule 2004 (2004/427) 3.11
Driver must make way when signalled by vehicle displaying blue or red beacons

(1) A driver must make way, by stopping if necessary, as soon as practicable with safety—

(a) for an emergency vehicle that is operating a blue or red beacon or blue and red beacons:

(b) for a vehicle .....

(c) if the driver has reasonable cause to believe that he or she is being signalled to make way by a siren carried on an emergency vehicle.

Safe driving practices and crew safety

All appliance occupants are required to wear safety belts when the appliance is in motion. Appliance occupants must not exceed the number of available safety belts.

Drivers are required to drive within the limit of their skills, road and traffic conditions and in accordance with the Traffic Regulations.

All items located in the cab and outside of lockers of appliances must be secured.

The driver's vision must not be obscured by items in the cab.

Under legislation some appliance cabs do not require seat belts for all passengers. Refer to your RFA policy for requirements to wear seat belts on fire appliances.

Restrictions on stopping or parking

In all non-emergency situations, emergency response drivers are bound by the same legislation with regards to restrictions on stopping and parking as all other road users are. A general exemption covering stopping and parking as part of emergency response and some other circumstances are covered in part 1.8 (4) of the Land Transport (Road User) Rule 2004 (SR 2004/427).

The Road Code

The Road Code is intended to promote safe driving practice through the practical explanation of transport legislation. It applies to all road users. Emergency response drivers must therefore be fully conversant with it.

Loads transported by appliances to be secured

Extract

The Land Transport Act 1988 Part 2 section 9
Loads transported by vehicles to be secured

A person operating a motor vehicle on a road, and any person loading that vehicle, must ensure that any load carried in or on the vehicle, or in or on a vehicle being towed by the vehicle driven by the operator, is secured and contained in such a manner that it cannot fall or escape from the vehicle.

Transportation of Hazardous Substances by Land

If you are transporting dangerous goods you usually need to have a dangerous goods (D) endorsement on your drivers licence. A lot depends on what you're transporting, how much of it, and under what circumstances.

NOTE

For more information refer to the LTSA website – D endorsement for carrying dangerous goods.

Summary

Use this summary checklist to check you understand the main points of this section.

Land Transport (Road User) Rules

For all non-emergency related situations emergency response drivers are bound by the same legislation as other road users.

Driving hours

Volunteer fire fighters are not subject to work time limits, even when they have worked a full day.

Speed limits

Need to know the Fire Authority's policy in relation to emergency response driving.

Beacons/siren not fitted

If an appliance is not fitted with beacons and sirens they must abide by normal road user legislation while responding to an emergency.

Use of beacons/siren

Need to be fitted by the authority of the RFA.

Safe driving practices

Required to wear safety belts when the appliance is in motion.

Stopping/parking at incidents

Bound by the same legislation with regards to restrictions on stopping and parking as all other road users.

Secure loads

Load must be secured and contained so that it cannot fall or escape from the vehicle.

Intersections

Fire appliances moving through intersections while under lights and sirens must not exceed 20 kph and taking due care to avoid collision with pedestrians and other traffic.

Irrespective of what legislation may allow, it is paramount that you drive in a defensive and safe manner.

Section 3: Operating Procedures

General Requirements for the Operation of Emergency Response Appliances

Safe operation of appliances

The driver of a emergency response appliance is responsible for ensuring that the appliance is driven and operated in a safe manner in accordance with the Health and Safety in Employment Act of 1992, the Transport Act of 1962, the currently in force legislation and the New Zealand Road Code. The driver must also comply with any general instructions and/or codes of practice issued from time to time by the Rural Fire Authority.

Fire appliance operational readiness

The driver of a fire appliance is responsible for ensuring that the appliance and associated equipment (including ancillary equipment) is in a state of operational readiness at all times.

Other members of the crew can assist the driver to check the availability and operational readiness of both the appliance and associated equipment, including ancillary equipment.

Operational readiness inspections shall be carried out on a regular basis and after the incident back at the brigade when it is known that equipment from the appliance has been utilised. The appliance will also be inspected when it is commissioned following servicing or generally at any other time as may be required.

For an appliance to be legally road worthy it needs to have:

- Certificate of Fitness (COF)
- Registration
- Road user charges
- An appropriate licensed driver

Figure 3 Operational readiness

NOTE

Fire appliance means any emergency appliance used as a response to an incident and fitted with lights and sirens.

Fuel, oil and water levels

Whenever operational readiness checks are carried out, the appointed driver shall inspect all fuels, oils and water levels on the appliance as an integral part of those checks.

Records of inspections

The appointed driver of an appliance is responsible for ensuring that the appliance and its equipment operation readiness inspections are recorded on the approved appliance and equipment check sheets.

All defective equipment including ancillary equipment shall be reported immediately, in the prescribed form, to the appropriate person for remedial action.

Ascertain location of emergency incident

Get confirmation from Fire Communications on location of the emergency incident. Make sure that you know the most direct route to follow prior to responding. Confirm the following:

- location
- how to get there
- type of incident
- who else is responding.

May not have LMR coverage on route to incident. Be mindful of updates on route as to actual location.

PPE

Before responding and prior to leaving station make sure that you and the crew are wearing appropriate and correct PPE.

Defensive driving

Defensive driving is about driving in a manner which prevents accidents inspite of the actions of others, or in the presence of adverse road or weather conditions.

The causes of road crashes consist of a combination of three elements, human error, environmental factors and the condition of the appliance.

A hazard is anything which might cause you to change course or alter speed.

Blind spots may be present at intersections, on bends or caused by other moving or parked appliances. The design of a appliance and driving at night can also create a blind zone.

When communicating with other road users, you should:

- signal your intentions in a clear and unambiguous way
- signal you intentions in a timely way (not too soon or too late)
- not rely entirely on others responding to your signals
- not rely entirely on other's signals.

Driver limitations include health and fitness and the ability to react in time.

Driver reaction time is the time period from the moment you as a driver observe the need for action (for example, avoiding a hazard), to the moment when you take that action.

An appliance with a cold engine is likely to have unreliable acceleration and be prone to stalling.

The appliance's gears are used to control engine load and speed under a range of conditions, and to avoid straining the engine.

Each appliance acceleration capability is different and you should be aware of the acceleration performance of any appliance you are required to drive.

When an appliance is going round a corner or bend, it is important to take into consideration the roll over thresholds of the appliance and adjust speed accordingly. Excessive speed can cause the appliance to become:

- off the course the driver is trying to take
- all weight on one side of the appliance.

The most suitable speed for your appliance will be affected by the condition of the road (including what effect weather will have on the road surface), by traffic, and by reduced visibility.

Situations may occur where you need to take sure and effective evasive action.

The possible effects of soft shoulders are:

- left side drags and pulls the appliance to the left
- left side sinks into soft surface and, subject to the conditions, the appliance may overturn.

You should aim to brake your appliance to a stop in a smooth and gradual manner by:

- braking early and gently
- braking where possible, when travelling in a straight line
- varying brake pressure to suit the road surface
- braking smoothly to avoid locking wheels and skidding
- changing down a gear to assist in slowing down appliance
- avoiding brake fade (reduction in brake's effectiveness) by selecting a lower gear before a steep descent.

Road speeds when responding

Care and consideration for the safety of other road users and pedestrians needs to occur when responding to emergency incidents.

Speed must be matched to the road conditions, time of day and weather conditions at the time.

While a defence is provided in law this will not prevent the issue of tickets for speeding offences or careless driving.

Temporary speed limits for school buses, accident scenes and road works will be complied with, as there is no defence in law for exceeding speed limits set in those circumstances.

Fire appliance speed limits may be addressed by a Rural Fire Authority policy.

Warning devices

Warning devices are fitted to fire appliances to alert other road users to the urgency of the situation.

There are certain legal requirements for the operation of warning signals such as negotiating intersections and for clearing the right of way. Drivers must be conversant with these requirements.

Whenever a fire appliance responds, the headlights and flashing red beacons shall be operated.

Headlights shall not be operated in such manner as to impair the vision of other road users.

Use of sirens

When using sirens for emergency response, be aware that animals may bolt. Turn siren off near animals whenever possible. Be aware of other road users including bikes and pedestrians before turning on sirens.

During the hours of darkness consider whether sirens are necessary to use.

Figure 3.1 Responding in convoy

Following another appliance

When two or more fire appliances respond, consideration must be given to maintaining a safe distance between each appliance especially in relation to stopping distances.

Overtaking other fire appliances

A driver may only overtake another fire appliance when specifically instructed to do so by the person in charge at the time and provided it is necessary and can be done safely.

Negotiating controlled intersections

Once the way is clear, the appliance may proceed at not more than 20 kph while still within the bounds of the intersection.

Headlights, flashing red beacons and sirens shall be operating.

Overtaking traffic at intersections

To overtake traffic at intersections, the following criteria must be met:

- traffic is stationary
- the appliance clears the intersection at a speed not exceeding 20 kph
- the appliance avoids collisions with other road users.

Railway crossings

At railway crossings the fire appliance may only proceed when the driver has assured him/herself that the way is clear and it is safe to do so.

At railway crossings controlled by bells, lights, and/or barrier arms, the fire appliance shall stop and proceed only when the warning devices have ceased.

Access along railway lines

Do not drive fire appliances along railway lines.

One-way streets and roundabouts

Do not drive against the flow of traffic in one-way street systems or around roundabouts.

Speed humps

Appliance speeds shall be reduced to walking pace to negotiate speed humps. This is to ensure that damage does not occur to the appliance suspension and/or wheels.

Driving past schools, churches and places of public assembly

Appliance speeds must be reduced when responding in the vicinity of any place at which large numbers of people are likely to congregate. For example – during through specifically signposted school zones and stationary school buses.

Reversing

Whenever it is necessary to reverse a fire appliance, guides shall be appointed and set down to assist the driver. The benefits of using a guide when manoeuvring are:

- the guide covers the invisible zones
- two people are watching for hazards
- red flashing lights shall be operated when reversing fire appliances.

Driving environments

All emergency response drivers must be mindful of the particular environment in which they are responding. They must take appropriate preventative measures to ensure the safety of the crew, appliance, other people and property.

CAUTION

Following immersion in water note brake fade and make sure brakes are dried out.

River crossing or flooding

Do not exceed manufacturer's specifications for the appliance. Apply brakes after crossing to improve operation.

Figure 3.2 Check bridge for load rating

Crossing farm/forestry bridges

Do not cross unless the bridge has a weighted rating greater then the appliance weight.

Weight restrictions on bridges

On a public road make sure that you check the weighted rating and do not cross if over the limit (especially water tankers).

Forestry road

If entry to a forestry road is signposted for needing to contact personnel before entry abide by it. It may require forest management escort before entry.

There is a need to contact the forest owner and advise them that emergency appliance vehicle is there.

Narrow roads

Alter speed so that you are able to stop within half of the visible distance ahead.

Driving in poor visibility (smoke and dust)

Extreme care must be taken if driving through smoke or dust. Dust and smoke can affect your ability to see ahead. If you can't see through it, you could crash or drive off the road into a greater danger. This means that you should:

- switch on hazard warning lights/headlights, beacons
- use only experienced drivers
- drive slowly and carefully
- use headlights at all times
- a general safety call on radio to advise on location and direction of travel.

Collisions during emergency responses

The crew leader takes control of an accident scene however the driver must comply with the following:

- the appliance will stop immediately to investigate the circumstances
- a general check for injuries sustained must be carried out

- the Comcen/base must be advised ASAP
- an ambulance should be called if necessary
- additional appliances should be requested if required
- the RFA, police and mechanical repair staff will be advised by Comcen/base as required
- first aid should be rendered to any person requiring it
- if injuries have occurred the appliance is to remain on site and continue to render whatever assistance it can, consider leaving a crew member there to assist any persons involved otherwise the appliance may proceed if in a fit state to do so
- Crew leader must record all accident details, including: appliance registrations, owner details, driver's details, position of appliances in relation to each other, witness names and addresses
- on return to the station the driver must complete all required appliance accident and work accident reporting.

Figure 3.3 Passing other vehicles

Driving appliances off road key points

While off road driving is not part of this course, the following are key points to note:

- You need to be familiar with the response appliance that you are driving
- Adverse off-road driving conditions can include decreased vision, poor traction, obscured or uneven terrain, shifting load, limited space for manoeuvring, steep slopes or driving alone.

You can overcome many of these adverse conditions if you:

- analyse the situation
- slow down
- get out and look, or use a guide
- use another route.

Figure 3.4 Walk the track before driving it

If in doubt walk the track before driving it.

The operation of four-wheel drive appliances involves a knowledge of:

- the characteristics of four-wheel drive appliances
- gear selections in four-wheel drive appliances
- situations where four-wheel drive is necessary
- limitations of four-wheel drive appliances
- key features of the off-road driving position
- considerations for crew safety
- function and operation of free wheeling hubs.

Figure 3.5 Off-road driving requires additional skills

When driving in off-road conditions, a range of difficult situation may have to be negotiated including:

- park-brake start
- hand-throttle start
- stopping or stalling procedure
- steep ascent and descent
- short vertical rises, humps and ditches
- side slopes (appliance stability)
- mud
- sand
- water crossings (check depth before crossing)
- long grass
- snow and ice
- rocky terrain
- transmission wind-up (in four wheel drive on hard surface)
- operation of tankers (stability due to additional weight and movement of tank water)
- approach and departure angle of vehicle
- the difference in stopping distances between light 4WD and heavy 4WD.

Tyre changing or vehicle recovery

Your appliance may require recovery as a result of a flat tyre, mechanical malfunction or the vehicle may be bogged. Do not change a tyre unless appropriately trained. The driver is to know the RFA policy in regards to who to call in the event of needing a tyre changing or vehicle recovery.

Figure 3.6 Avoid situations where a vehicle may require recovery

Breakdowns

The process to follow may be found in RFA policies or procedures. Ensure you are familiar with your local authorities requirements e.g. vehicle service contract arrangements.

Appliance siting

At emergency incidents the siting of the fire appliance is critical to safety and effective fire ground operations. The person in charge is responsible for safe siting of the appliance.

The following factors should be considered:

- crew and public safety
- visibility for other road users
- possible damage from spreading fire or radiated heat
- road side collapse
- maintaining access for other appliances or vehicles
- danger of becoming bogged down
- possible damage from overhead hazards e.g. falling trees, rocks etc
- danger from appliances exhausts starting secondary grass fires.

Figure 3.7 Parking on side of road ensures other road users see you

SAFETY NOTE

Park appliance in a manner to ensure safety of crew and other road users.

Parking on a slope

When the appliance is parked on a hill, the hand brake is to be properly engaged and/or wheel chock used.

The steering wheel should be positioned so that the appliance will turn into the bank where possible.

Use wheel chocks when park brake is not operating on all 4 wheels.

Figure 3.8 Use of wheel chocks

Parking on the opposite side of the road

Requirements when parking on the wrong side of the road:

- Appliance shall be visible for oncoming traffic
- Safe distance and visibility
- Crew member must be positioned to flag oncoming traffic
- Any time of the day:
  - Flashing beacons to be operating.
  - Headlights to be on dipped beam.
  - Hazard warning lights to be operating.

If overrun by fire while in a appliance

In an appliance burn-over situation the conditions in the cab may seem to be as bad as outside. Stay in the cab for longer than is comfortable, until the conditions outside have improved. Even in high intensity fires the chances of survival are greater in an appliance than out in the open.

Precautions in such an event:

- Park where fire spread will minimise threat to the appliance.
- Park facing the way out.
- Shut windows.
- Park to the side of road so other appliances can pass.
- Keep below window level and stay covered to protect yourself from the heat that will be transmitted through the glass.
- Leave keys in ignition.

NOTE

Modern appliances are fitted out with synthetic materials that may melt or emit toxic fumes when very hot.

Parking unattended appliances

Flying embers may enter parked appliances through open windows. In most circumstances, the appliance bodywork will protect you from flames and radiant heat. So if your escape is cut off by the fire, stay in the appliance and:

- park on the side of the road opposite the fire or in the middle of a clear area
- close all doors, windows and vents to prevent embers and smoke getting in
- keep below window level and stay covered to protect yourself from the heat that will be transmitted through the glass
- leave keys in ignition.

Figure 3.9 Parking unattended vehicles

Matters affecting the driver's license

Any matter, which might prevent an individual from driving, must be reported immediately to the PRFO, or Fire Force Controller.

Medical conditions that could affect the safety of other crew members or other road users must be reported immediately.

Administrative Procedures – driving log books

Emergency appliances drivers are not required to record their driving hours while driving Fire Service appliances. Once again, if Fire Service drivers work for other employers they are subject to the normal legislative requirement for the logging of hours.

Departing incident

Before departing an incident do a check of the appliance:

- vehicle/tyre check – do a walk around the vehicle
- check for missing equipment and make sure that the equipment is secured
- note down the equipment left at the fire scene
- check fuel levels and tyre pressure and refuel as necessary.

Recommission

Recommissioning means to make sure that the fire appliance is ready to respond to another incident. Specifics may vary with location and the fire authority. Recommissioning equipment makes sure the appliance remains in a serviceable and ready state. All equipment must be recommissioned before storing it. This is part of the role. Do not leave this task to someone else. In general cover the following:

Appliance

- fuel levels and fill as necessary
- physical check of vehicle for damage
- check tyres
- all lights working and radio switched off
- master switch off.

Pumps

- are at fire-ready state
- have been flushed with clean fresh water
- refuelled
- where used in salt or brackish water the suction hose needs to be flushed (internal wire binding in suction hose will corrode if not flushed)
- visual inspection.

Figure 3.10 Inventory checks

Equipment

- all items are accounted for (use checklist/s)
- used hose is replaced as required (some hose types will require drying and repacking at a later time, while others can be rolled and re-stowed immediately after use)
- all equipment is re-stowed on vehicles as it usually is (or as close to as possible) on the assumption that it will be required again at short notice
- all items are in full working order (damaged items have been tagged and replaced)
- foam as required.

Lockers

- full inventory check.

Documentation

- log books completed (recording mileage, pumps)
- damaged or missing equipment recorded and reported. Even if you have not used it. As the driver returning the appliance to the base you are responsible for recommissioning it.

Summary

Use this summary checklist to check you understand the main points of this section.

The appointed driver of an emergency services appliance is responsible for the following:

- **ensuring the appliance is driven and operated in a safe manner**
- **ensuring the appliance and associated equipment is in a state of operational readiness**
- **recording operational readiness inspections, and reporting all defective equipment**
- **immediately reporting any matter which might prevent an individual from driving a vehicle.**

  Drivers must be mindful of the particular environment in which they are responding. They must take appropriate preventative measures to ensure the safety of the crew, appliance, other people and property.

  The driver must satisfy him/herself that they are well qualified before operating the specific appliance.

Always drive in a defensive and safe manner.

Notes

Glossary

Emergency	*Means:* *(a) a state of emergency; or* *(b) an incident attended by an emergency service; or* *(c) an event requiring immediate action to save life or prevent serious injury.*
Emergency vehicle	*Means a vehicle used for attendance at emergencies and operated:* *(c) as a fire service vehicle.*
Fire authority	*Has the same meaning as it has in section 2 of the Forest and Rural Fires Act 1977.*
Fire service vehicle	*Means a vehicle that is:* *(c) operated and approved by a fire authority.*
Priority call	*Means an incident where life or property is, or is believed to be, at imminent risk and to which an emergency service responds in a time-critical manner, and includes:* *(a) a fire or a fire alarm; and* *(b) a transport accident; and* *(c) a medical incident attended by an ambulance service.*