



Fleet Safety

Resource

Kit



ROADWISE



WESTERN AUSTRALIAN
LOCAL GOVERNMENT
ASSOCIATION



ROAD SAFETY
COUNCIL

**SPEED AND RED LIGHT
CAMERA FUNDED PROJECT**

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Foreword by Cr Bill Mitchell JP (President, WA Local Government Association)



Between 2000 and 2005, WA Local Governments made over 5,700 vehicle damage claims, costing over \$11 million, as a result of car crashes involving fleet vehicles.

From 1995 to 2000, 340 injury claims were reported and, on average, each injury claim meant 28 days of lost work time, which translates into almost \$7,000 for each claim.

These startling results illustrate how essential it is that we all urgently adopt fleet safety policies to reduce this massive cost to our sphere of Government, and protect our most valuable asset – our people.

In the following pages you will find a comprehensive but very user-friendly fleet safety resource kit that provides clear guidelines based on 'best practice' as to how to implement fleet safety policies.

The kit provides an holistic approach to fleet safety, incorporating a wide range of elements such as what to look for in regard to safety when purchasing fleet vehicles and how to improve workplace road safety.

By adopting fleet safety policies and practices, WA Local Governments can be proactive and become leaders in fleet safety initiatives. We can create a culture of safe driving, not only at work, but also in all aspects of our lives, reducing crashes right across the State.

Importantly, through the implementation of these policies, we can save lives, reduce injuries and have a practical and positive impact on the cost of road crashes to Local Governments across the State.

The guidelines are based on information provided by leading road safety authorities in Australia, and I urge all Local Governments to implement the seven elements of fleet safety contained in this resource kit, I also encourage you to lead the cultural change in saving lives on our roads.

Cr Bill Mitchell JP
President, Western Australian Local Government Association



Foreword by Mervyn Rea (Risk Engineer, Zurich Insurance Services Australia)



The magnitude of the death and injury toll on West Australian roads is well documented and publicised – we hear it on the news and see the safety message signs on the side of the road.

Whilst preventative measures are imparted upon individual drivers by various agencies, including the Police, not enough is done to reinforce the safety message to **employers**.

A significant number of work-related deaths and injuries are caused on the road, or by transport, and it is estimated globally that approximately 30% of all road deaths and trauma is associated with work-related driving – but in WA that figure rises to 45%. After HIV/Aids, road crashes are the second largest global killer among young men.

Vehicles are an extension of the workplace, and employers quite rightly should extend their health & safety management procedures to include vehicles. Sadly, in my experience, only a small percentage of organisations and bodies have truly incorporated road safety as part of their mainstream Occupational Health & Safety regime, and hence achieved true Best Practice.

Ensuring the vehicle is suitable for the purpose; that the driver exercises appropriate care whilst on the road; that adequate planning is allowed to make a business trip; that precautions, or alternatives, are taken for long distance journeys, are all examples of how an employer can help ensure the safety of their employees. I'm sure we all want to see our most valuable assets – our staff – return safely back to work, and more importantly, to their families at the end of each working day.

The insurance industry has long championed better driving standards – not least because of safety and the preservation of life. But it also stands to reason that reducing crashes on our roads also lowers uninsured costs, reduces claims, protects public perception of the organisation we represent and improves efficiency to our customer.

Any tool, document or advice that helps us all improve the management of road risks should be welcomed. Having witnessed first hand the determination taken and detail input into the WALGA Resource Kit, I am honoured to have been asked to contribute in its content and to provide this foreword.

I would invite all persons within Local Government agencies to use this valuable resource as part of their road safety toolkit, and to augment the Road Safety culture within your Local Government. Drivers, managers, Senior Officers and Health & Safety personnel all have an important part to play. Together we can all lead by example, be ambassadors for safety on our roads and in our vehicles, and make WA a safer environment for everyone. It therefore gives me great pleasure to support the overall strategy, endorse this particular document, and encourage you to adopt the Seven Elements of Fleet Safety within your organisation.

Mervyn Rea
Risk Engineer, Zurich Insurance Services Australia



► Arriving Safely: Road Safety Strategy for Western Australia 2003-2007

The aim of the Road Safety Council is to eliminate road crashes as a major cause of death and serious injury through a Safer Systems approach to road safety. The aim of the Safer Systems approach is to reduce death and serious injury by reducing the force of impact the human body suffers in a crash.

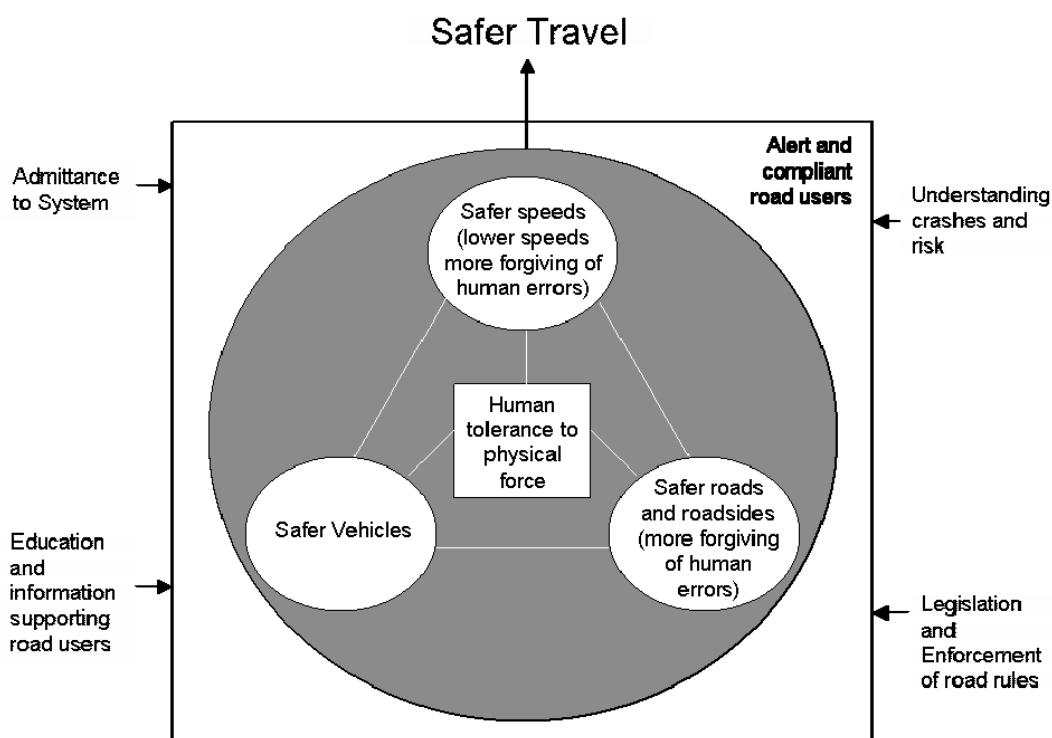


Figure 1 The Safer Systems Approach to Road Safety

The Safer Systems approach can be divided into four key areas of consideration including safer roads and roadsides, safer behaviours, safer travel speeds and safer vehicles (Road Safety Council¹ n.d.) and summarised as follows:

▷ **Safer Roads**

Treating volatile sections of road, roadside and intersections to reduce and prevent serious crashes is expected to contribute to a 42.7% reduction in road fatalities to all road users. Safety treatments to roads include audible edge lining, shoulder sealing, safety barriers and improving road environments for pedestrians. Safer roads are of particular importance in rural areas where drivers travel at higher speeds which allows little room for error.

▷ **Safer Behaviours**

Creating a culture of safer driver behaviour through education and training is expected to contribute to a 20% reduction in road fatalities. Drink driving, speeding, non seatbelt use and driving fatigue are the four most common behaviours associated with road trauma. Mobile phone use and drug use when driving are also contributors to road crashes.



▷ ***Safer Travel Speeds***

Reducing travel speeds on urban roads is expected to contribute to a 9% reduction in road related fatalities. A reduced travel speed increases a driver's ability to detect and avoid crashes, decreases braking distance and reduces the severity of crash outcomes. The short term focus will be on enforcement, road engineering approaches and reducing speed limits with a long term emphasis on creating supportive environments to reduce travel speeds.

▷ ***Safer Vehicles***

Purchasing cars with a minimum Australian New Car Assessment Program (ANCAP) star rating of four is expected to contribute to an 8.5% reduction in road related fatalities. Improved side impact protection, frontal crash protection and offset crash protection along with thorax and head airbags, seat belt/speed alert systems and electronic stability control will better protect vehicle occupants from death or serious injury in the event of a crash.

► **Western Australian Local Government Association's RoadWise Program**

As a member of the Road Safety Council, the WA Local Government Association's (WALGA) RoadWise Program aims to contribute to the long term vision of eliminating road crashes as a major cause of premature death and injury, by increasing community support, partnerships and participation in the implementation of the Safer Systems Approach.

The Program consists of a community road safety network, supported by regional road safety officers who work with Local Government, RoadWise Committees, road safety partner agencies and the administration of the Community Road Safety Grants Program.

This manual is designed to serve as a resource kit based on 'best practice guidelines' to assist WA Local Governments to adopt and implement workplace road safety and fleet purchasing policies as part of their occupational safety and health (OSH) framework.

RoadWise Regional Road Safety Officers are available to assist Local Governments in using this resource kit. Visit www.roadwise.asn.au/rwstaff for contact details of your local Regional Road Safety Officer or call RoadWise on 9213 2066.



► Rationale for Developing Fleet Safety Policies

Road crashes are the most common cause of work-related death, injury and absence from work in Australia. Between 1999/2000 and 2003/04 there was an average of 11 fatalities and 489 lost time claims due to work-related crashes each year in WA, making up 45% of all work related fatalities during this period (WorkCover WA 2006).

WA Local Government fleets are substantial, with the 138 Local Governments surveyed collectively having 14,576 vehicles worth \$459,386,181 (Pope 2006). WA Local Government fleets made \$11,614,310 worth of vehicle damage claims between 2000 and 2005, at an average cost of \$2008 per claim and costing \$13,623 per Local Government each year (Pope 2006).

WA Local Government fleets made \$2,285,373 worth of injury claims between 1995 and 2005 resulting in an average of 28 days lost per claim and costing an average of \$6,742. There was one work-related crash related fatality reported in this time in WA Local Government fleets (Pope 2006).

► Reasons for Developing Fleet Safety Policies

▷ *Social Reasons*

The introduction of a fleet safety policy can have a positive effect whereby workers develop a safer driving culture away from work, setting an example and influencing their families (Murray, Newman, Watson, Davey and Schonfeld 2003). Safer fleet vehicles that are purchased will integrate into the wider community after 2-3 years and eventually make safety features more cost effective due to public demand (Murray et al 2003).

▷ *Legal Reasons*

As a legal obligation and a 'duty of care', employers are obliged to provide a safe workplace and systems of work, along with safety information, instruction, training and supervision (Murray et al 2003). Integrating a safe fleet management system into an occupational safety and health (OS&H) framework can reduce the risk of injury and death, reduce costs (Seljack & Maddock 2002) and protect an organisation in relation to OS&H regulations (Murray et al 2003).

▷ *Business Reasons*

A fleet safety policy can help an organisation stay ahead of regulations and offer good public relations as a leader in road safety initiatives (Murray et al 2003). The business benefits from the introduction of fleet safety policies can include:

- Improved productivity
- Enhanced quality of service
- Improved employee relations
- Reduced costs (vehicle damage/insurance)
- A better public image
- Compliance with OSH regulations
- Off-the-job awareness.

(Murray et al 2003)

▷ *Financial Reasons*

Crash costs cut into the budget of an organisation with average repair costs being around \$2000 (Wheatley 1997) and an average total cost of \$18 500 (Stewart-Bogle 1999). The average yearly cost of vehicle damage claims between 2000 and 2005 was



\$27,598 for metropolitan Local Governments and \$10,048 for non metropolitan Local Governments (Pope 2006). The average cost per injury claim between 1995 and 2005 was \$6,686 for metropolitan Local Governments and \$6,770 for non metropolitan Local Governments.

Work-related crashes cost Australia \$425 million per year (Stewart-Bogle 1999) and the cost is shared 40% by employees, 30% by employers and 30% by the community (Wheatley 1997).

► Occupational Health and Fleet Safety

Employees, employers and contractors all have a 'duty of care' to ensure that workplaces are safe and healthy concerning themselves and others (Murray et al 2003).

A workplace is defined as a place in which a person works, thus, a vehicle is classed as a workplace where it is used for employment purposes (Haworth, Tingvall and Kowaldo 2000). In this regard, it is important that fleet safety policies are incorporated into an organisation's OS&H framework. Non-adherence to OS&H legislation can result in employees suing employers for injuries and losses due to work related incidents and prosecution of the employer by OS&H authorities for failing to provide a safe workplace (Haworth et al 2000). The Occupational Safety and Health Act 1984, outlines the responsibilities of employers and employees in relation to workplace safety (Western Australian Government 1984):

Section 19: Duties of Employers

- (1) "An employer shall, so far as is practicable, provide and maintain a working environment in which the employees of the employer (the **"employees"**) are not exposed to hazards and in particular, but without limiting the generality of the foregoing, an employer shall"
 - (a) provide and maintain workplaces, plant, and systems of work such that, so far as is practicable, the employees are not exposed to hazards"
 - (b) provide such information, instruction, and training to, and supervision of, the employees as is necessary to enable them to perform their work in such a manner that they are not exposed to hazards
 - (c) consult and cooperate with safety and health representatives, if any, and other employees at the workplace, regarding occupational safety and health at the workplace
 - (d) where it is not practicable to avoid the presence of hazards at the workplace, provide the employees with, or otherwise provide for the employees to have, such adequate personal protective clothing and equipment as is practicable to protect them against those hazards, without any cost to the employees; and
- (2) In determining the training required to be provided in accordance with subsection regard shall be had to the functions performed by employees and the capacities in which they are employed.



Section 20: Duties of Employees

- (1) An employee shall take reasonable care —
 - (a) to ensure his or her own safety and health at work; and
 - (b) to avoid adversely affecting the safety or health of any other person through any act or omission at work.
- (2) Without limiting the generality of subsection (1), an employee contravenes that subsection if the employee —
 - (a) fails to comply, so far as the employee is reasonably able, with instructions given by the employee's employer for the safety or health of the employee or for the safety or health of other persons;
 - (b) fails to use such protective clothing and equipment as is provided, or provided for, by his or her employer as mentioned in section 19(1)(d) in a manner in which he or she has been properly instructed to use it;
 - (c) misuses or damages any equipment provided in the interests of safety or health; or
 - (d) fails to report forthwith to the employee's employer —
 - (i) any situation at the workplace that the employee has reason to believe could constitute a hazard to any person that the employee cannot correct;
or
 - (ii) any injury or harm to health of which he or she is aware that arises in the course of, or in connection with, his or her work.
- (3) An employee shall cooperate with the employee's employer in the carrying out by the employer of the obligations imposed on the employer under this Act.

► The Seven Elements of Fleet Safety

Queensland Transport and the Road Safety Council, in conjunction with road safety authorities throughout Australia, agree that there are seven key elements in implementing a successful fleet safety policy.

1. Integrating fleet safety policies into a occupational safety and health framework
2. Taking road safety into account when recruiting and selecting new staff
3. Developing a road safety induction for staff
4. Informed choice based on safety when purchasing and maintaining vehicles
5. Data collection on fleet, drivers and incidences
6. Reinforcement of fleet safety through incentives and disincentives
7. Training, education and development programs



The following descriptions and definitions of the seven elements of fleet safety were developed using materials obtained from Road Safety Council² (n.d.), Road Safety Council (2001), City of Armadale (2003) and Queensland Transport (1998).

Element One: Integrating Fleet Safety Policies into an Occupational Safety and Health Framework

Workplace fleet safety is an occupational safety and health (OSH) issue and should be integrated into an organisation's OSH framework. The OSH Act clearly defines the responsibilities of both employers and employees in this regard. A clear understanding of the level of commitment that an organisation is willing to dedicate to workplace fleet safety is integral in the adoption of any policies. Some areas of consideration to take into account when adopting fleet safety policies are:

- The level of commitment management is prepared to dedicate to fleet safety before, during and after policy development
- Departments and staff responsible for fleet safety and their roles
- Staff responsibilities for vehicle maintenance and the level of maintenance
- Incident/crash reporting systems that includes 'near misses'
- Expectations and responsibilities of fleet drivers
- Employee consultation in the development and implementation of policies
- The penalties for drivers who breach the organisation's rules or the road rules
- The expected outcomes of driver training and education
- The degree that safer vehicle selection is weighed up against other issues.

Table 1 Best Practice Guidelines for Integrating Fleet Safety Policies into an Occupational Safety and Health Framework

Best Practice not in Place	Moving Towards Best Practice	Best Practice
No policy No processes	Some safety areas included in policy documents Communication of policies conducted on an ad hoc basis Some employee involvement in consultation Responsibilities defined for some people Reviews of the policy are conducted on an ad hoc basis	Written and dated policy in place Active employee involvement including effective communication and consultation Responsibilities are clearly defined Fleet safety policy is regularly reviewed to ensure its effectiveness Policy is distributed in a systematic manner

(Queensland Transport 1998)



Element Two:

Taking Road Safety into Account when Recruiting and Selecting New Staff

Hiring employees based on a safe driving record and their awareness of road safety issues is vital to a fleet's performance and should be a part of the application, interview and selection process. Information about a potential employee's licence details, driving history and attitude toward road safety should be documented and assessed before offering employment. Some areas of consideration to take into account when recruiting and selecting new staff are:

- Include a safe driving record as part of the employment selection criteria (driving record, infringements and crashes)
- Assess applicant's knowledge of and attitude toward safe driving
- Request documentation like a current driver's licence and driving records from previous employers and insurance companies
- Conduct a practical driving test and medical examination to identify areas of risk.

Table 2 Best Practice Guidelines for Taking Road Safety into Account when Recruiting and Selecting New Staff

Best Practice not in Place	Moving Towards Best Practice	Best Practice
Safe driving is not discussed in position descriptions or during selection process	Applicants are requested to provide evidence of a current driver's licence Medical assessment is conducted Driving record is discussed in reference to checks	Safe driving is included in position description for jobs with significant driving tasks An applicant's attitude to safety is assessed Independent driver record assessment is conducted

(Queensland Transport 1998)

Element Three:

Developing a Road Safety Induction for Staff

New drivers to an organisation are vulnerable without an adequate induction system, regardless of whether fleet safety policies are in place or not. An official induction program specifying driver management principals and procedures containing road safety and safe driving components is required. It is also imperative that supervisors know and understand their roles and responsibilities in relation to fleet safety. Some areas of consideration to take into account when developing a road safety induction are:

- Ensure the road safety induction is a formal program that outlines the organisation's road safety policies, procedures, values and standards
- Develop a formal induction specifically for supervisors containing fleet safety issues and outlining their roles and responsibilities
- Define driving responsibilities of new employees and allocate vehicles accordingly
- Formally allow employees to become familiar with their vehicle and the safety features of the vehicle



Table 3 Best Practice Guidelines for Developing a Road Safety Induction for Staff

Best Practice not in Place	Moving Towards Best Practice	Best Practice
Fleet safety is not included in induction programs	Limited induction is given to new employees on fleet safety	<p>Fleet safety is included in a formal induction program for new employees/ supervisors, including information on the organisation's fleet safety policy and procedures</p> <p>Employees do not drive a vehicle until they have been given an induction into the operation of the vehicle</p> <p>A driver assessment program is carried out for new employees</p> <p>New employees are assessed for driver competency</p>

(Queensland Transport 1998)

Element Four: Informed Choice Based on Safety when Purchasing and Maintaining Vehicles

Careful consideration of the driver's tasks and the driving environment must be taken into account when purchasing fleet vehicles and vehicle options. Careful selection and adequate maintenance will result in lower running costs, less crashes and better safety in the event of a crash. Vehicle maintenance involves adhering to manufacturer's service requirements and the driver taking responsibility for vehicle inspection.

Regulatory mechanisms for the introduction of safety features in cars are generally slow in Australia due to international compatibility issues (Haworth et al 2000). Fleet operators in Australia purchased 72% of new Fords and Holdens and 61% of new Toyotas and Mitsubishi's in 1997 (Haworth et al 2000). The collective buying power of fleet operators in the marketplace can help speed up the introduction of effective safety features (Haworth et al 2000).

Researching the safety of a vehicle is a simple yet worthwhile process in providing employees with the safest vehicle for the organisation's budget and individual needs. The vehicle safety matrix (see appendix for an example) can be used to effectively compare vehicles to make an informed choice when purchasing vehicles.

Researching a vehicle involves visiting an Australian New Car Assessment Program (ANCAP) website, the manufacturer's website and then calling the manufacturer to fill in any blanks. The following list highlights some of the issues that need to be considered when purchasing and maintaining vehicles:

▷ **Australian New Car Assessment Program (ANCAP)**

In Australia, new cars are tested in a carefully controlled ANCAP laboratory to provide a safety rating for each new car. Cars with a rating of four or five stars are significantly safer than cars with a rating of three stars or below. The three main tests carried out are



the offset crash, side impact and frontal crash tests. Cars are also scored on the pedestrian impact test with a bonus score offered for an optional pole test. ANCAP ratings of new cars can be viewed online at <http://rac.com.au/go/community-and-information/motoring-advice/crash-tests-ancap> or <http://www.aaa.asn.au/ancap.htm>.

▷ **Seatbelts**

The function of a seatbelt is to restrain vehicle occupants under impact conditions to reduce injury (Department of Transport and Regional Services 2006). Three point seatbelts reduce the risk of life-threatening injuries by 60-70% (Transport Accident Commission n.d.). It is a legal requirement to always use a seatbelt in WA.

▷ **Airbags**

An airbag is designed to cushion the impact of the body against vehicle structures in a crash (Barnes, Morris, Fildes & Newstead 2001). Airbag use halves the risk of head injury and decreases fatalities by 20% for belted drivers and 10% for unbelted drivers in a crash (Road Safety Council² n.d.). Side (thorax) and head (curtain) airbags provide added protection in a crash by protecting against impact to the side column of the car further preventing injury and death.

▷ **Electronic Stability Program**

Electronic stability Program (ESP) helps maintain vehicle control when a vehicle over/understeers or swerves suddenly and improves traction and handling on gravel, icy or wet roads (VicRoads 2006). In these instances, skidding is prevented by selective braking of wheels and reduction in engine torque, resulting in an expected 40% decline in single vehicle crashes (VicRoads 2006). Some of the different names that manufacturers use for ESP are:

- Electronic Stability Program (ESP) - Holden, Audi, Chrysler, Mercedes, Saab, Volkswagen
- Dynamic Stability Control (DSC) – Ford, BMW, Jaguar, Land Rover
- Vehicle Stability/Swerve Control (VSC) – Toyota, Lexus
- Active Stability Control – Mitsubishi
- Dynamic Stability Traction Control – Volvo
- Vehicle Stability Assist – Honda
- Vehicle Dynamic Control – Subaru, Nissan

▷ **Anti-lock Brakes (ABS)**

ABS allows a driver to simultaneously brake suddenly and steer the car in an emergency to avoid a crash (Transport Accident Commission n.d.). ABS is particularly useful in wet or slippery conditions (Road Safety Council² n.d.; Transport Accident Commission n.d.) where sudden braking would normally result in the car skidding out of control which increases the chance of a serious crash.

▷ **Seatbelt and Speeding Alert Systems**

Fleet drivers are less likely to wear seatbelts and more likely to speed whilst driving than non-fleet drivers (Symmons & Haworth 2005). Seatbelt/speed alert systems seek to motivate drivers to comply with seatbelt use and maintain an appropriate speed limit by making the journey uncomfortable unless these two behaviours are adhered to (Harrison, Senserrick, & Tingvall 2000).



▷ **Anti-submarining Seat Design**

An anti-submarining seat is a hardpan seat or an airbag built into the seat cushion that prevents serious injury in the event of a serious frontal crash, by stopping the front passengers sliding under the seatbelt sash (National Roads and Motorists' Association¹ n.d.).

▷ **Head Restraints**

Head restraints can prevent up to 15% of whiplash related soft tissue damage caused by rear end collisions (Road Safety Council² n.d.). Adjustable head restraints allow exact placement of the head restraint to optimise whiplash injury prevention.

▷ **Seatbelt Pretensioners and Load Limiters**

In a crash, seatbelt pretensioners tighten the belt to restrain the driver while load limiters reduce seat belt related injury by absorbing the force of the body against the seat belt (Transport Accident Commission n.d.).

▷ **Cargo Barriers**

Cargo barriers help protect occupants from being injured or killed by the forward momentum of loose cargo in the rear of vehicles, particularly vans and station wagons.

▷ **Vehicle Interlocks**

An alcohol interlock prevents a driver under the influence of alcohol starting the vehicle while a seat belt interlock prevents the vehicle starting if the driver is not properly restrained.

▷ **Speed Limiter**

Speed limiter systems are different from speed alert systems in that they actually restrict the maximum speed of a vehicle.

▷ **Driver Visibility**

Window tinting can reduce a driver's visibility during dusk, night or bad weather and is of questionable benefit in reducing a car's internal temperature (Transport Accident Commission n.d.).

▷ **Kerb Weight**

Heavier vehicles are safer in a crash but can cause substantial damage to smaller vehicles in a multiple car crash and are more dangerous to pedestrians and bike riders than smaller cars. Vehicles with a kerb weight between 1300kg and 1700kg are considered the optimum weight for vehicle occupant safety and the safety of other road users (Office of Road Safety n.d.).

▷ **Foot Brace**

A brace for the driver's foot is mounted on the left hand side of the driver's side 'foot well'. A foot brace is comfortable when driving and can prevent a driver sliding forward in a crash (National Roads and Motorists' Association² n.d.).

▷ **Cruise Control**

Cruise control allows a driver to automatically maintain a set speed on open roads to help avoid 'creeping' over the speed limit.

▷ **Knee Bolster**

A knee bolster is made of a soft material like foam and designed to protect the knees in a crash (Office of Road Safety n.d.).



▷ **Automatic Daytime Running Lights (DRL)**

Automatic DRL activate when the ignition is started and allow a vehicle to be seen by other drivers more easily by other road users (Pain 2003).

▷ **Mudflaps**

Mudflaps prevent vehicle tyres spraying water onto the windscreen of following vehicles which, in turn can reduce their visibility (Road Safety Council² n.d).

▷ **Air Conditioning**

Air conditioning can make the vehicle comfortable for the driver and can be a valuable tool for demisting vehicle windows.

▷ **Fire Extinguisher**

Consider fitting a well maintained, visible and accessible 'dry chemical' fire extinguisher in fleet vehicles, ensuring it is fixed so it cannot come loose and cause injury.

▷ **First Aid Kit**

First aid kits can be helpful in the event of minor crashes and other incidents that may require emergency first aid. A Type-C (car) first aid kit should be a minimum requirement for all fleet vehicles. Consideration should then be given to provide first aid training for drivers carrying a first aid kit.

▷ **Mobile Phone Hands Free Kit**

Research indicates that using a hands free mobile phone is no safer than using a hand held mobile phone (McEvoy, Stevenson, McCartt, Woodward, Haworth, Palamara, & Cercarelli 2005; Napoli 2005; Westall 1997). Experiments on mobile phone users have found that they will miss twice as many simulated traffic signals and take longer to react to the ones they do detect (Richards 2005).

Vehicle safety features can be divided into passive injury prevention which involves environment and active injury prevention which involves people (Table 4)

Table 4 Passive and active vehicle safety features

Passive Injury Prevention	Active Injury Prevention
Speed limiter	ABS
Automatic daytime running lights	Manual daytime running lights
Alcohol & seatbelt interlocks	Cruise Control
Vehicle maintenance	Air conditioning
Anti-submarining seat design	Warning devices (seatbelt & speeding)
Airbags	Non-mobile phone usage
ANCAP rating ≥4 stars	Blind spot technology
Adjustable head restraints	Seatbelt use
Cargo barrier	High driver visibility
Crush zones	Electronic stability control
Three point seatbelts in all seats	Foot brace for driver's left foot
Seatbelt pretensioners and load limiters	
Knee bolster	
Pedestrian protection	



Additional considerations to take into account when purchasing fleet vehicles:

▷ **Carbon Neutral Programs**

Carbon Neutral Programs aim to reduce a car's impact on the environment by planting trees to create a forest which grows and absorbs the greenhouse gases emitted by a car. Below are the websites of two examples of Carbon Neutral Programs in WA.
<http://www.greenfleet.com>; <http://www.menofthetrees.com.au>

▷ **Fuel Consumption**

Vehicles emit greenhouse gases, primarily carbon dioxide, which contributes to air pollution and climate change. Vehicles with better fuel economy are not only cheaper to run but also emit less carbon dioxide. Detailed information regarding the environmental impact of a range of vehicles can be accessed at www.greenvehicleguide.gov.au.

▷ **Residual Value**

The residual value is the predicted value at the end of a lease period and is written directly into the lease agreement. The customer is charged accordingly if the actual resale value of the vehicle is less than the predicted residual value. Residual values are extremely difficult to estimate with the best guides being the Redbook (www.redbookasiapacific.com/au) and Glass's Guide (www.glassguide.com.au).

▷ **Purchasing Australian Made Vehicles**

Purchasing cars and parts manufactured in Australia encourages and assists the local market and therefore local employment in Australia.

▷ **Driver Vehicle Maintenance**

Simple maintenance of a vehicle prevents costly repairs later on. The basics of driver vehicle maintenance can best be described by the acronym POWER:

Petrol	Ensure there is ample fuel in the tank including reserve tanks
Oil	Keep oil topped up and clean along with brake, clutch and power steering fluids
Water	Maintain water and coolant levels in the radiator and regularly check and top up the window washer reservoir/s
Electrics	Make sure the horn, all signals and lights are working correctly
Rubber	Ensure there is a minimum of at least 1.5mm of tread of every part of the tyre that comes into contact with the road surface and that all tyres have correct tyre pressures

Table 5 Best Practise Guidelines for Informed Choice Based on Safety when Purchasing and Maintaining Vehicles

Best Practice not in Place	Moving Towards Best Practice	Best Practice
Safety features are not considered when purchasing vehicles Maintenance conducted <i>ad hoc</i>	Employees are consulted when determining fleet safety requirements for purchasing vehicles Maintenance of vehicles occurs as per the manufacturer's specification Procedures are in place if there is a problem with a vehicle	Organisations investigate fleet safety features and include relevant features in purchase specifications Maintenance procedures are fully documented and include the sign-off of all repairs and alterations

(Queensland Transport 1998)



Element Five: Data Collection on Fleet, Drivers and Incidences

Effective data collection on fleet vehicles, fleet drivers and incidents can help identify and address fleet safety problems. A comprehensive data collection system can help identify reoccurring problem areas within a fleet no matter how small and result in significant financial savings. Some areas of consideration to take into account when collecting data on fleet, drivers and incidences are:

- Availability of incident and crash report forms (including 'near misses') in both the vehicle and the office
- Record and analyse data on
 - crash incidence over a period of time or vehicle kilometres
 - repair/replacement costs over a period of time or vehicle kilometres
 - individual repair/replacement costs
 - lost time due to crashes
 - rehabilitation costs
 - the nature and severity of crashes
 - the outcomes of any police enquiry.
- Evaluate the success of implemented changes by monitoring data after implementation
- Consult with staff when implementing changes that affect them
- Produce regular reports to keep staff up to date with the fleet's performance

Table 6 Best Practise Guidelines for Data Collection on Fleet, Drivers and Incidences/Accidents

Best Practice not in Place	Moving Towards Best Practice	Best Practice
Incidents are reported for insurance claims only Crash data is not collected	Major incidents are reported Incidents involving personal injury are investigated Fleet safety data collected but not analysed on a regular basis	All incidents are reported as per documented procedures Incidents are investigated and corrective action is implemented and monitored Fleet safety data is analysed on a regular basis Benchmarking data are collected

(Queensland Transport 1998)

Element Six: Reinforcement of Fleet Safety through Incentives and Disincentives

An official incentives and disincentives scheme can motivate fleet drivers to initiate and maintain good driving behaviours. Incentive rewards dependant on future safe driving are shown to be more successful than rewards for past safe driving. Incentive and disincentive schemes that recognise good performance may be particularly effective on younger and new employees.

- Monitor driving performance by recording traffic infringements and incidents that involve a driver



- Develop a system where the public can report on fleet drivers performance (good or bad)
- Carefully consider the incentives on offer for good driving and the level of action for bad driving
- Officially recognise incentive rewards to inspire other employees and link improved road safety to actual reductions in incidents

Table 7 Best Practise Guidelines for Reinforcement of Fleet Safety through Incentives and Disincentives

Best Practice not in Place	Moving Towards Best Practice	Best Practice
Driving performance is not formally monitored	Driving performance is monitored but incentives/disincentives are not offered	<p>Incentives and disincentives have been developed after consultation with employees</p> <p>Systems are in place to identify good and poor driving behaviour</p> <p>Procedures exist for dealing with public feedback</p>

(Queensland Transport 1998)

Element Seven: Training, Education and Development Programs

It is well established that education and training are precursors to behavioural change. Increasing driver knowledge and awareness of safety issues is a valuable tool in drivers recognising and evading dangers on the road. Appropriate training and education programs based on the needs of employees should be assessed and implemented in an appropriate fashion within the organisation.

- Conduct a needs analysis to develop individually tailored programs
- Use data on individual drivers to identify individual training needs
- Assess which type of training is most relevant e.g. defensive driving, off-road driving, economic driving training etc
- Utilise adequate training facilities and experienced, qualified trainers
- Implement and formally evaluate a training plan to assess training retention down the track
- Ensure employees are up to date with road safety issues, road rules and evaluation results

Human behaviour is shaped in childhood by a person's attitudes, beliefs and values and is refined or reshaped in adolescence and adult life. This socialisation process is a dynamic process whereby experiences and education can help reinforce, reshape or change behaviour. There is some evidence to suggest that fleet drivers adopt higher risk behaviours in work vehicles than they normally would because there is little or no financial burden involved (Newman, Watson & Murray 2002). Training and education that enables and encourages the adoption of safer behaviours is an important strategy in reducing work-related crashes.



The driving behaviour of employees can be influenced by educating them on various workplace road safety issues. Some of the areas that can be influenced by education programs are:

▷ **Blood Alcohol Concentration (BAC)**

Apart from:

- learner and provisional drivers,
- holders of an Extraordinary Motor Driver's Licence,
- people who have been convicted of Driving Under the Influence (DUI) - for 3 years after the date of conviction,
- people who have been convicted of 2 or more 0.08% (0.080g of alcohol per 100ml of blood) offences - for 3 years after the date of conviction; and,
- heavy plant operators,

a driver's BAC must not equal or exceed 0.05% (0.05g of alcohol per 100ml of blood) in Australia. The WA Police website (<http://www.police.wa.gov.au>) details the penalties for driving above the legal BAC limit:

Table 8 Summary of Penalties for Driving over the BAC Limit

BAC	Licence suspension	Fine
0.05% - 0.06%	3 months*	\$250 - \$500*
0.06% - 0.07%	3 months	\$300 - \$500
0.07% - 0.08%	3 months	\$350 - \$500

* A BAC between 0.05% and 0.06% will result in a warning and a \$100 fine for a first offence

A first offence where the BAC equals or exceeds 0.08%, but is less than 0.150% attracts a fine between \$400 and \$1500 and a 3-6 month licence suspension with substantial penalty increases for repeat offences.

In police attended crashes between 1990 and 1999, alcohol was present in 31.1% of fatalities, 11.1% of crashes resulting in hospitalisation and 12.7% of serious crashes (Road Safety Council 2000). The chances of crashing increase greatly as a person's BAC increases:

- 2 x at 0.05%
- 7 x at 0.08%
- 25 x at 0.15%

(Roads and Traffic Authority 2005).

Even a blood alcohol concentration of 0.02% results in a 12% reduction in secondary reaction time which influences driving ability (Grant, Millar & Kenny 2000).

▷ **Seatbelts**

Regulation 236 of the Road Traffic Code 2000 states:

- (1) A person shall not, while occupying a seat position with a seat belt fitted in a motor vehicle, travel upon a road as a passenger unless the person is wearing the seat belt, and it is properly adjusted and securely fastened.

Seatbelts are effective in minimising injury and death by up to 50% in single vehicle accidents (Queensland Transport 2005). A person not wearing a seatbelt is 10 times more likely to be killed in a crash than a person wearing a seatbelt (Road Safety Council 2000) with seatbelts absent in 27% of fatal crashes in WA (7% urban and 38% rural) (Road Safety Council² n.d). A US study claims that the "direct cost to the employer



averaged \$27,750 if the employee was not wearing a safety belt, compared with \$11,310 if the employee was wearing a safety belt” (Anonymous, 2005, p.37).

▷ **Fatigue**

Feeling tired, drained or exhausted are all symptoms of what is generally referred to as fatigue (Commission for Occupational Safety and Health 2004). Research indicates that fatigue is a factor in 30% of rural fatal crashes and 20% of urban fatal crashes (Road Safety Council² n.d). It is believed the death rate is closer to 50% because fatigue generally refers to how a person feels which is difficult to quantify. Research indicates that reaction times after 17-19 hours without sleep are 50% worse than a BAC of 0.05% and prolonged sleeplessness is equivalent to a BAC of 0.1% (Williamson & Feyer 2001). A fatigued driver can drift into what is known a ‘micro-sleep’ for 3-5 seconds which at 100km/h equates to 100 metres of unpiloted travel (Road Safety Council² n.d).

Signs of fatigue can include:

- Heavy eyes
 - Continual yawning
 - Impatience
 - Fluctuations in travelling speed
 - Blurred vision
 - Slow reactions
- (Skews 2001)

▷ **Speeding**

Regulation 11 of the Road Traffic Code states:

- (1) A person shall not drive a vehicle at a speed exceeding the default speed limit for that vehicle.
- (2) A person shall not drive a vehicle in a built-up area, at a speed exceeding 50 km/h, except within a speed zone in which a higher speed is permitted.
- (3) A person shall not drive a vehicle in a speed zone, at a speed exceeding, in kilometres per hour, that indicated by the numerals on the speed limit sign, at the beginning of the speed zone.

The new ‘owner onus’ legislation means that the owner of a vehicle is responsible for speeding infringements. Unless an employer can identify who was driving a speeding vehicle they will be responsible for a \$5000 penalty (Department for Planning and Infrastructure).

In police attended crashes between 1990 and 1999, speed was a factor in 32.5% of fatalities, 17.2% of crashes resulting in hospitalisation and 18.7% of serious crashes (Road Safety Council 2000). The chance of being injured in a crash increases significantly once over 60km/h (*Table 8*) (Kloeden, McLean, Moore & Ponte 1997).



Table 9 Effects of Travel Speed on Stopping Distance, Impact Speed and Relative Risk of Injury

Travel speed (km/h)	Stopping distance (m)	Impact speed (km/h)	Relative risk of injury
50	29	0	0
60	38	42	1
70	48	61	4.16
80	59	77	31.81
90	70	90	Infinite

(Roads and Traffic Authority 2006).

▷ **Mobile Phones**

Regulation 265 of the Road Traffic Code 2000 states,

- (1) On or after 1 July 2001, a driver shall not drive a motor vehicle and use a hand-held mobile phone while the vehicle is moving, or is stationary but not parked.
- (2) In this regulation - mobile phone does not include a CB radio or any other two-way radio.

Research indicates that a driver's reaction time, when using a mobile phone, is 50% slower than under normal conditions (Anonymous 2002). Driving whilst using a mobile phone quadruples the chance of crashing even if a hands-free device is used, due to issues with driver distraction rather than dexterity (McEvoy et al 2005; Napoli 2005; Westall 1997).

▷ **Drugs**

A drug is a legal or illicit chemical substance that affects the processes of the body and mind (Drug Aware n.d.). Cannabis has a detrimental effect on reaction time, attention span and the ability to handle complex tasks while barbiturates and narcotics dull the senses causing drowsiness, slow reflexes and impaired judgement (Kowalski 2004). Legal drugs like painkillers containing codeine and cold and flu tablets containing pseudoephedrine hydrochloride can also affect driving ability. One study found that antihistamine medication affected driving ability more than alcohol even if the subject did not feel drowsy (Pirisi 2000).

▷ **Compounding Factors**

The combination of fatigue and alcohol consumption, even in low levels, substantially increases the risk of a crash resulting in road trauma (Philip, Vervialle, Breton, Taillard & Horne 2001). This theory can also be applied to other compounding factors like speeding and not wearing a seatbelt or speeding and alcohol consumption etc.

▷ **Driver Distraction**

Simple tasks like adjusting controls, eating, looking through a bag or glove box and texting on a mobile phone while driving can distract a driver and have an impact on driver reaction times, increasing the chance of being involved in an incident (Burton 2005).

▷ **Daytime Running Lights**

Daytime Running Lights (DRL) allow a driver to be seen by other drivers more easily as well as improving the reaction times and estimation of speed and distance of other drivers (Paine 2003). Most crashes resulting in injury occur during the daytime and a failure to notice the other vehicle in time is the major reason given (Royal Automobile Club of WA n.d.). In a North American study, the use of DRL in fleet cars resulted in



significant crash reductions (Farmer & Williams 2002). Research indicates that between 40% and 80% of car crashes involving two cars can be avoided due to early detection resulting from DRL (Royal Automobile Club of WA).

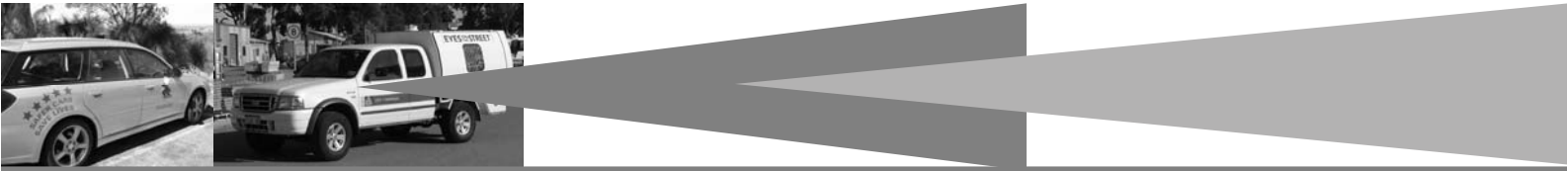
Table 10 Best Practice Guidelines for Training, Education and Development

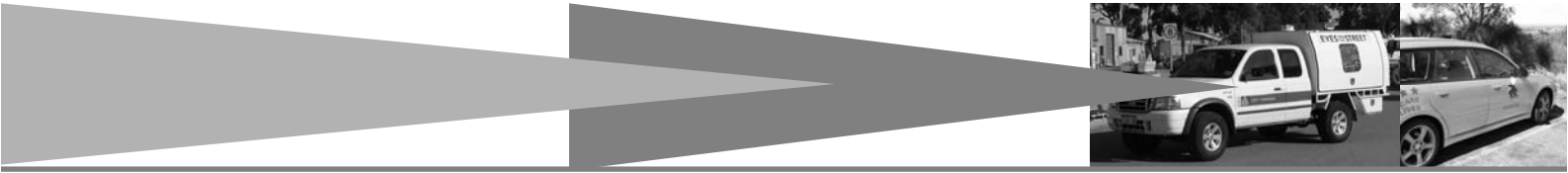
Best Practice not in Place	Moving Towards Best Practice	Best Practice
<p>Very little training is conducted</p> <p>Training needs have not been identified</p>	<p>Fleet safety training is conducted on an ad hoc basis</p> <p>Fleet safety information is passed on to drivers</p> <p>Documentation is kept on training undertaken</p>	<p>Fleet safety training has been identified through a training needs analysis</p> <p>Training is conducted to meet identified needs</p> <p>All training is evaluated</p> <p>A detailed training plan has been developed</p>

(Queensland Transport 1998)

Please contact the nearest RoadWise Regional Road Safety Officer for assistance and support in developing your fleet safety policy.

- | | |
|------------------------|--------------|
| ▶ Gascoyne | 0417 964 129 |
| ▶ Goldfields/Esperance | 0409 881 924 |
| ▶ Great Southern | 0418 904 081 |
| ▶ Kimberley | 0419 192 759 |
| ▶ Metropolitan North | 0407 986 496 |
| ▶ Metropolitan South | 0417 950 358 |
| ▶ Mid West | 0419 953 583 |
| ▶ Pilbara | 0428 955 773 |
| ▶ South West | 0438 982 563 |
| ▶ Wheatbelt North | 0409 686 138 |
| ▶ Wheatbelt South | 0409 689 313 |





Appendix



Fleet Safety Best Practice Guidelines (Queensland Transport 1998)

Element One

Integrating Fleet Safety Policies into an Occupational Safety and Health Framework

1.1 Fleet Safety Policy

- 1.1.1 The organisation has a fleet safety policy that is signed and dated, contains clear fleet safety objectives and a commitment to improving fleet safety performance.
- 1.1.2 The organisation's fleet safety policy has the authorisation of an appropriate senior officer with executive responsibility.
- 1.1.3 Consultation with appropriate employee representatives has been conducted by management in developing the organisation's fleet safety policy.
- 1.1.4 The fleet safety policy is communicated to employees and, where appropriate, contractors, suppliers, customers and visitors to the organisation.
- 1.1.5 Employees sign a copy of the fleet safety policy, confirming understanding and acceptance of the policy.
- 1.1.6 A process exists for scheduled reviews of fleet safety policy objectives to assess their effectiveness and make changes in accordance with organisational and legislative changes where appropriate.
- 1.1.7 Fleet safety issues are addressed in the Workplace Safety and Health policy.

1.2 Fleet Safety Responsibilities

- 1.2.1 The organisation has defined and documented the responsibilities, authority to act and reporting requirements of fleet safety, and has communicated these to all employees.
- 1.2.2 Accountability for fleet safety performance within individual work areas is the responsibility of management.
- 1.2.3 The organisation's annual report documents fleet safety performance.
- 1.2.4 The organisation allocates responsibility for disseminating up-to-date information and legislation on fleet safety.
- 1.2.5 Implementing the fleet safety management system is the responsibility of a member of the organisation's executive or board.
- 1.2.6 Senior management regularly reviews the effectiveness of the fleet safety management system in satisfying the organisation's stated fleet objectives.

1.3 Review and Evaluation of Fleet Safety Policy

- 1.3.1 Crucial fleet safety documents are identified as policy. The date the documents were issued, date of modifications and authorisation appear on the documents.
- 1.3.2 Fleet safety documents deemed obsolete are withdrawn from use. Those retained or archived for legal or reference purposes are identifiable.



- 1.3.3 A procedure exists for altering and approving the changes to fleet safety documents.
- 1.3.4 Changes to fleet safety documents are identified in an attachment or in the document wherever possible.
- 1.3.5 The effectiveness of communicating the policy objectives is evaluated.
- 1.3.6 Where appropriate, review outcomes are incorporated in organisational action planning.

1.4 Employee Involvement and Consultation

- 1.4.1 An appropriate system for nominating employee and management representatives exists. All consultation with employees and methods of consultation in relation to the development or alteration of fleet safety documents are recorded.
- 1.4.2 The organisation has a consultation procedure to follow when considering changes that have fleet safety implications.
- 1.4.3 The organisation has avenues for discussing fleet safety issues in the workplace.
- 1.4.4 Checks are carried out to ensure staff understand organisational fleet safety requirements.
- 1.4.5 Managers discuss fleet safety in Workplace Safety and Health meetings with staff.
- 1.4.6 Employees are informed of the procedures for dealing with fleet safety issues and receive information on progress toward resolving fleet safety issues.

1.5 Fleet Safety Policy Distribution

- 1.5.1 A process exists for distributing information on fleet safety issues and activities to all employees.
- 1.5.2 Records are kept on the distribution of fleet safety information within the organisation and to appropriate external persons such as visitors, contractors and suppliers.
- 1.5.3 The distribution list for a fleet safety document is clearly identified.
- 1.5.4 A process exists for storing and updating fleet safety documents.

1.6 Auditing of Systems

- 1.6.1 Fleet safety management systems are regularly audited according to a set schedule to assess the match between organisational fleet safety objectives and activities.
- 1.6.2 Fleet safety management systems are independently audited by appropriately qualified persons.
- 1.6.3 Results of fleet safety audits are formally reported to relevant personnel, including management.
- 1.6.4 Action is taken to correct deficits identified by fleet management audits and 'follow-up' monitoring is conducted



Element Two

Taking Road Safety into Account when Recruiting and Selecting New Staff

2.1 Recruitment

- 2.1.1 Safe driving is mentioned in position descriptions for jobs involving significant driving tasks.
- 2.1.2 An applicant is asked to provide evidence of a current driver's licence.
- 2.1.3 Applicants for positions involving significant driving tasks are asked to provide details of crash records and traffic infringements for the past three years.
- 2.1.4 Applicants provide details of licences held, driver training courses attended and any awards received for their driving.

2.2 Selection

- 2.2.1 A potential employee's driving record is assessed for jobs involving significant driving tasks.
- 2.2.2 An applicant's driving record is a factor in the hiring of new employees for jobs involving significant driving tasks.
- 2.2.3 An applicant's attitude to safety is addressed in the interview.
- 2.2.4 An independent driving record assessment is made for jobs involving significant driving tasks.
- 2.2.5 A medical assessment is conducted to check an applicant's fitness to operate the required vehicles.
- 2.2.6 Applicant's previous employers are contacted to verify driving record.

Element Three

Developing a Road Safety Induction for Staff

3.1 New Employees

- 3.1.1 The organisation ensures that all employees undergo an induction program containing a fleet safety component covering the organisation's fleet safety policy and procedures.
- 3.1.2 Vehicles are assigned to new employees based on the needs of their job.
- 3.1.3 New employees are trained to operate their vehicle before they drive it.
- 3.1.4 A driver assessment program is carried out for new employees.

3.2 Supervisors

- 3.2.1 The organisation has an induction program for supervisors which includes fleet safety issues.



Element Four

Informed Choice Based on Safety when Purchasing and Maintaining Vehicles

4.1 Fleet Selection

- 4.1.1 The organisation obtains advice from qualified fleet safety professionals (in-house or external).
- 4.1.2 Purchasing decisions are made in consultation with employees to determine the fleet safety requirements and specifications where decisions may affect those employees.
- 4.1.3 Goods and services purchased by the organisation (such as vehicles, safety equipment, vehicle modifications) are checked for compliance with purchase order requirements and/or specifications.
- 4.1.4 Relevant safety features are considered when selecting vehicles.

4.2 Fleet Maintenance

- 4.2.1 Fleet vehicles are registered annually (including compulsory third party (CTP) insurance).
- 4.2.2 Reporting of fleet vehicle inspections, maintenance, repairs and modifications is maintained as a running record by the organisation.
- 4.2.3 The organisation ensures that maintenance, repairs and modifications to fleet vehicles are conducted by suitably qualified individuals with appropriate expertise.
- 4.2.4 The organisation ensures compliance with relevant legislation for all vehicle modifications.
- 4.2.5 The withdrawal of unsafe vehicles from use may be initiated through a maintenance request procedure.
- 4.2.6 The organisation has a procedure for authorising the safety of vehicles being returned to drivers following repair or modification.
- 4.2.7 The organisation has a vehicle maintenance program.
- 4.2.8 Drivers regularly inspect their vehicles.
- 4.2.9 There is a procedure to follow if there is a problem with a vehicle.
- 4.2.10 Tyre wear is monitored.
- 4.2.11 Fuel consumption is monitored.

Element Five

Data Collection on Fleet, Drivers and Incidences

5.1 Crash Reporting

- 5.1.1 The organisation has a documented reporting system for all fleet safety incidents (including minor panel damage, crashes, injuries and fatalities).
- 5.1.2 A procedure is in place for informing all employees of the process for reporting fleet safety incidents.



5.2 Crash Investigations

- 5.2.1 Reported incidents are investigated in accordance with an organisational investigation procedure.
- 5.2.2 Crash investigation training is provided to staff involved in the area.
- 5.2.3 Investigation reports contain recommendations and a timetable for implementing corrective actions.
- 5.2.4 Employees within the organisation are responsible for implementing remedial measures and counteraction based on investigation reports.
- 5.2.5 Before implementing corrective measures, employees who may be affected by such action are consulted.
- 5.2.6 A procedure exists for evaluating and monitoring remedial/corrective measures.

5.3 Crash Monitoring

- 5.3.1 Pertinent fleet safety data are collected and analysed.
- 5.3.2 Regular reports on fleet safety performance are produced and distributed within the organisation.
- 5.3.3 Benchmarking data are collected.

Element Six

Reinforcement of Fleet Safety through Incentives and Disincentives

6.1 Driver Monitoring

- 6.1.1 The organisation monitors the driving performance of employees.
- 6.1.2 A process exists by which members of the public can comment on the driving behaviour of employees.
- 6.1.3 Employees receive feedback about their driving performance.
- 6.1.4 Organisations keep a record of traffic infringements incurred by employees.
- 6.1.5 The organisation conducts driver's licence checks.

6.2 Incentives

- 6.2.1 The organisation has an incentive scheme for safe driving.
- 6.2.2 The organisation has a system for recognising good driving behaviour.
- 6.2.3 Incentives are distributed to employees in front of their peers.

6.3 Disincentives

- 6.3.1 The organisation has a system for recognising poor driving behaviour.
- 6.3.2 Organisations penalise poor drivers.



Element Seven

Training, Education and Development Programs

7.1 Assessing Training Needs

- 7.1.1 The organisation conducts a training needs analysis to determine fleet safety training requirements.
- 7.1.2 Before assigning a vehicle to an employee, organisations check whether the employee has driven that type and size of vehicle before.
- 7.1.3 The organisation has a system to identify those drivers in need of further driver training and/or remediation.

7.2 Evaluating Training Programs

- 7.2.1 The organisation ensures that quality training is provided by engaging suitably qualified and experienced trainers.
- 7.2.2 Suitable and effective training facilities and resources are available.
- 7.2.3 Each training session is properly evaluated to gain a measure of performance in terms of participants' comprehension and retention.
- 7.2.4 Regular reviews of the training program are conducted regarding the relevance of the program to the organisation and the effectiveness of the program in improving work performance.

7.3 Driver Education

- 7.3.1 A system is in place to provide fleet safety information to all employees.
- 7.3.2 Where driver training needs have been identified, employees undertake relevant practical driver training.

7.4 Training Plans

- 7.4.1 A training plan has been developed to provide all levels of personnel in the organisation with identified fleet safety training needs.
- 7.4.2 Employees' levels of training and ability are considered when allocating tasks.
- 7.4.3 The organisation considers the varying levels of ability (including literacy) of its employees and selects training to suit.
- 7.4.4 The organisation documents and keeps records of all training.
- 7.4.5 Legal obligations and fleet safety management principles and practices are articulated to the organisation's executive and senior management through formal training.
- 7.4.6 The organisation ensures that managers and supervisors are trained in their roles and responsibilities as they relate to fleet safety.
- 7.4.7 Organisations minimise fleet safety risk by providing training to all new and transferred employees.
- 7.4.8 Refresher training is provided to all personnel as appropriate.
- 7.4.9 Where an organisation or individual is legally required to hold specific qualifications or licences to undertake duties, the organisation has a procedure for ensuring conformance with all training requirements.
- 7.4.10 The organisation has a policy on training and development.



Linkage to Australian Standard (AS/NZS ISO 9001:1994)

Standards Australia is dedicated to setting benchmarks that meet the growing expectations of the Australian community, industry and government. It remains committed to enhancing the social, environmental and economic well-being of all Australians. When procedures are standardised the costs are lower, training is simplified and consumers accept products more readily. Refer to 1509001:2000 for updated standards.

Table 11 Australian Standards for Fleet Policy

Fleet Safety Elements	Australian Standards – Elements (AS/NZS ISO 9001:1994)
Integrating fleet safety policies into an occupational health and safety framework	4.1 Management responsibility 4.2 Quality System 4.5 Document and data control 4.9 Process Control 4.17 Internal Quality Audits 4.19 Servicing
Taking road safety into account when recruiting and selecting new staff	
Developing a road safety induction for staff	4.18 Training
Informed choice based on safety when purchasing and maintaining vehicles	4.3 Contract review 4.4 Design Control 4.6 Purchasing 4.7 Control of customer-supplied product
Data collection on fleet, drivers and incidences/accidents	4.10 Inspection and Testing 4.11 Control of inspection, measuring and test equipment 4.13 Control of nonconforming product 4.14 Corrective and preventive action 4.15 Control of quality records 4.20 Statistical techniques
Reinforcement of fleet safety through incentives and disincentives	
Training, education and development programs	4.18 Training
Miscellaneous	4.8 Product identification and traceability 4.12 Inspection and test status 4.15 Handling, storage, packaging, preservation and delivery



Vehicle Matrix Example

* Percentage used instead of a raw score as not all ANCAP overall scores are out of 36

Safety Features	Cost/ Benefit Ratio	Holden Commodore Acclaim Wagon	Ford Falcon Wagon (4.0L V6)	Holden Astra Wagon CDX 1.8L	Subaru Liberty Auto 3.0R Wagon	Toyota Prado GXL Turbo Diesel (V6)
Automatic day time lights	7.76	S	S	N/A	N/A	N/A
Seat belt load limiters	1.95	S	S	S	S	S
Seat belt pretensioners	1.12	S	S	S	S	S
Anti-submarining seat design	1.12	S	S	S	S	?
Anti lock brakes (ABS)	0.83	S	S	S	S	S
Side (thorax) airbags	0.81	S	O	S	S	O
Driver airbags	0.79	S	S	S	S	S
Foot braces (for driver's left foot)	0.55	S	S	S	S	S
Adjustable head restraints	0.50	S	S	S	S	S
Cargo barriers in wagons and vans	0.47 (1.89)♣	S	O	O	O	O
Cruise control	0.27	S	S	S	S	S
Immobiliser	0.25	S	S	S	S	S
Head (curtain) airbags	0.20	N/A	N/A	N/A	S	O
3 point passenger seat belts in all seats	0.19 (1.86)♣	S	S	S	S	S
Passenger airbags	0.19 (0.97)♣	S	S	S	S	S
Air-conditioning	0.00	S	S	S	S	S
Driver seat belt reminder	?	S	S	S	S	S
Passenger seat belt reminder	?	N/A	S	S	S all seats	S
Bull bars	?	O	O	N/A	N/A	O
Mudflaps	?	O	O	O	O	S
First aid kit	?	O	O	O	O	O
Fire extinguisher	?	O	O	O	O	O
Impact absorbing steering column	?	?	S	S	S	S
Electronic stability control	?	N/A	N/A	N/A	S	N/A
ANCAP score percentage*	N/A	72.3%	73.7%	85.2%	96%	74.4%
ANCAP star rating	N/A	4 stars	4 stars	4 stars	5 stars	4 stars
Australian made	N/A	Y	Y	Y	N	N
CO ₂ Emissions	N/A	264	265	199	265	N/A
Fuel consumption (L/100km)	N/A	11.2	11.1	8.3	11.1	13.7
Green vehicle 5 star rating	N/A	3	3	3.5	3	N/A
Greenhouse & air pollution rating (/10)	N/A	4.5 & 5	4.5 & 5	6.5 & 6.5	4.5 & 5	N/A
Kerb weight	N/A	1570	1690	1325-1350	1505	1980-2130
Luggage space (L)	N/A	2752	1254	1549	1649	?
Market value prices at 29/3/06	N/A	\$41 790	\$39 010	\$27 990	\$52 990	>\$53 270
Whole of life costs	N/A	?	?	?	?	?
Pedestrian rating percentage*	N/A	0.08%	7%	8.1%	51.8%	not tested
Towing capacity (Kg)	N/A	2100	2300	1250	1800	2500

♣ Number inside brackets indicates cost/benefit ratio when there is a passenger in the car only

S=standard, O=Optional or available as an accessory, N/A=Not available, ? =Information not available



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