



DEFENSIVE DRIVING

Definition – Defensive Driving

Defensive driving is driving behaviour that avoids collisions and emergencies by:

- Being aware of our own potential driving errors
- Coping with the potential driving errors of other drivers, motorists and road users
- Anticipating, identifying and managing the hazards and risks of the driving environment
- Driving smoothly and minimising vehicle wear
- Managing factors external to the driving task that can affect safety e.g. the tram line system, work schedules, aged or disabled passengers, stop design, door opening, alighting and boarding passengers, different trams etc

This definition is derived from the literature on defensive driving and is adapted to incorporate the specific issues confronting tram drivers.

The definition highlights the importance of the individual driver safety profile.

Driver Safety Profile

Each driver has a unique profile in the context of driver safety reflecting the elements of Behaviour, Attitude, Awareness, Motivation and Skills,.

These skill areas were developed by Murcotts in recognition that safe driver behaviour was influenced by more than attitudes and skill, the factors most commonly referred to by road safety authorities.

The five elements are interdependent and balanced for defensive drivers.

Effective training must encourage drivers to examine their motivation for safe driving behaviour and that requires self awareness and insight skills.

It follows that the key skills required are more proactive than reactive.

Content of Training

The learning outcomes of this induction training include the development of the key skills of Defensive Driving and awareness of the Risk Factors and Risk Taking Behaviour that undermine defensive driving as follows:

- **Observation and Vision skills**

Hazard and risk identification – other road user behaviour, changes in traffic and conditions. Tram Drivers should "read the road" by looking at the track in front and using their mirrors to anticipate turning traffic. In this way drivers can assess the traffic flow and be ready to react to any problems that are likely to occur in the distance or near the tram. At intersections prior to moving off, visually check all directions for vehicle/pedestrian movement, red light runners and late turning vehicles.

Detection of greasy/slippery rails caused by rain commencing, frost or morning dew, track repairs, bitumen compounds, oil or melted tar, fallen leaves, new rails, and grass clippings (Reserved track).

- **Anticipation.**

Anticipating other road users and pedestrian behaviour. Anticipating other drivers "racing" the tram for the gap. "Late Runners" (people trying to board the tram as the tram is moving off must be anticipated). Anticipating emergency stops. When approaching a stream of traffic slow down to be ready for U turns or turning cars. Drivers should anticipate persons near a pedestrian crossing may cross against the light. Anticipate traffic lights changing suddenly by choosing an appropriate speed that will enable a smooth safe stop. When passing stationary trams anticipate pedestrians walking out behind them. Drivers should gong the stationary tram and slow down, and be prepared to stop.

- **Smoothness** Application of controls for acceleration sense and braking smoothness assists other motorists to anticipate tram's passage, ensures passenger comfort and avoids falls on the tram.

- **Ensuring appropriate speed for situation and conditions**
The tram must be kept under control at all times. Speed should be adjusted for road and weather conditions and to accommodate other road users. All speed limits must be obeyed including school zones & shopping precincts as signed.

- **Maintaining crash avoidance space in front**
When drivers are following other trams and vehicles they must observe regulations. If travelling more than 20kph they must be 100 metres or 3 tram pole lengths behind the tram they are following. When required to stop behind the tram in front they should be no more than 1 metre behind. Changing traffic and weather conditions make these rules imperative at all times. Different classes of trams have greater or lessor braking capacities.

- **Maintaining crash avoidance space beside – ensuring adequate clearance space**
Ensure adequate clearances are observed when passing other vehicles. Drivers must anticipate poor space judgement and competitive behaviour from motorists and be prepared to stop or give way to avoid collision. Anticipate motorists opening car doors that will compromise clearance space.

- **Road law interpretation**

Strict liability of drivers at law, Give Way vs Right of Way, understanding other motorist's confusion/ignorance of road law. Green light for the tram driver does not indicate right of way. Emergency vehicles with lights and sirens on MUST be given way to.

- **Safe Tram operation procedures**

As per Module "Points and Shunting." Comply with regulations for compulsory stops such as request stops, any place shown in special instructions, stops near railway crossings and the stopping mark at a terminus. Stopping places for passengers - stop in the correct position with the step opposite people waiting. Do not stop blocking cross streets cross walks, driveways or safety zones. Stop with the front of the tram at the building line of a cross or Side Street except where there are track stop marks or other instructions apply. Do not stop on a sharp curve except in an emergency. Drivers observing road and track repair gangs working, should slow the tram and be prepared to stop if necessary. When talking to Fleet Operations via the A. V. M. the tram should be stationary.

- **Tram safety check**

Car in car out checklist – driver responsibility.

- **Alerting other road users – using gong**

When entering safety zones drivers should gong at least once to warn passengers of the approaching tram and slow to 10 kph. Ensure that all passengers have boarded the tram and that nobody is moving over the yellow line in the safety zone. When leaving safety zones drivers should also gong at least once and observe the 10 kph speed limits. Watch for people running across safety zones, and be prepared to stop.

At rail crossings, sound gong to alert the signalperson that the tram is waiting to cross.

When the points T light or disc are set correctly, sound the gong and when safe to do so, proceed with caution.

When passing stationary tram sound gong to alert pedestrians who may walk out from behind other tram.

- **Self assessment (insight)**

Self assessments means reflecting on driving experience and incidents that provide learning and improvement opportunities for defensive driving.

It means accepting accountability for safe defensive driving rather than externalising events by blaming the vehicle, the conditions, other motorists or the system.

- **Risk Taking Behaviour**

Talking while driving – passengers often talk to drivers while they are driving. Drivers should wait until they are stationary before talking to the passenger. If necessary, tell the passenger to take a seat & you will talk to them at the next stop, where you can answer their query.

Speeding or running amber/red lights to meet timetable schedules.

Driving while fatigued. Driving while affected by alcohol, illicit drugs or medication. Driving when affected by a medical condition. Competing with other road users. Demanding "right of way". Driving erratically creating problems for other motorists. Failing to read ahead and anticipate hazards.

Assessment

The above content is subject to competency assessment. Drivers must be able to demonstrate the skills described and the application of the procedures in the driving situation.

Competency checklists against each criteria will be completed by a trainer/assessor during and following the training.

Knowledge alone will not be sufficient for competency assessment.

Refresher Training

At regular intervals all drivers will be reassessed against the above criteria to ensure standards of defensive driving are maintained and to address the fact that erosion of competency is normal and that other inappropriate driving behaviours may emerge over time.

TRAM SPECIFIC DEFENSIVE DRIVING

As we have just read, defensive driving techniques are so very important for tram drivers.

This is on going, and you will be asked to practice these techniques every day you are driving in or out of service.

The objective of this module is to make sure tram drivers are aware of and can practically carry out safe and defensive driving skills, and to recognise potential hazards and risks whilst tram driving.

Defensive Driving comes in different categories. Let's define them.

Responsibilities of a Tram Driver

Defensive Driving Practices

You should discuss these topics with your Senior Depot Trainer who will reinforce the need to drive defensively at all times.

RESPONSIBILITIES OF A TRAM DRIVER

A Tram Driver must be alert at all times and follow safe working procedures. Tram Drivers should have the tram under control at all times and be a safe distance from the tram in front to be able to stop. They should follow Rules and Regulations of both Yarra Trams and the Victorian Road Laws.

Tram Drivers should be alert to danger, anticipate changes in traffic and conditions, and drive in a way that provides a safe, comfortable and smooth ride for all passengers' motorists and the general public.

They must keep up to date with notices and special notices and any changes in local infrastructure.

DEFENSIVE DRIVING PRACTISES

Defensive Driving can mean many things let's look at some of the defensive driving practices.

TRAM READY FOR THE ROAD

It is the driver's responsibility to make sure that the tram they are running out has no defects and that all the necessary equipment is in working order.

It is ultimately the responsibility of the driver who prepared the tram to run out of the Depot who is responsible for the tram.

CITY INTERSECTIONS

City Intersections can be hazardous because of the higher traffic flows. There are different rules for motorcars turning into or out of these intersections. Just because the light is green for the tram driver it doesn't mean that it is safe to move off. You must look in all directions and make sure all traffic on the cross road is stopped and that all turning vehicles have completed their turn and that there are no pedestrians walking in front of your tram. "Late Runners" (people trying to board the tram as you are moving off must also be anticipated).

When tram drivers enter safety zones they should gong at least once (this is to warn passengers of the approaching tram) and slow down to 10 kph.

When leaving safety zones driver should also gong at least once and observe the 10 kph speed limit.

FOLLOWING TRAMS

When drivers are following other trams they must observe regulations. If travelling more than half speed they must be 100 metres or 3 tram pole lengths behind the tram they are following. When required to stop behind the tram in front they should be no more than 1 metre behind.

The changing traffic and weather conditions make it imperative that drivers follow these regulations at all times.

Remember different classes of trams have greater or lessor braking capacities and drivers should always be alert to the tram they are following.

CARE IN TRAFFIC

Defensive skills are the tram driver's greatest asset. It helps in avoiding accidents and reduces stress. Anticipation of motorist's behaviour and controlling the speed of the tram are vital to a safe and smooth trip. The use of the gong (if used correctly) can be a deterrent to motorists.

The tram must be kept under control at all times. Speed should be adjusted for road and weather conditions. Make sure that clearances are observed when passing cars. Drivers must be prepared to stop instantly.

Motorists never expect to be overtaken by a tram

Tram Drivers should "read the road" by looking at the track in front and using their mirrors to anticipate turning traffic. In this way drivers can assess the traffic flow and be ready to react to any problems that are likely to occur in the distance or near the tram.

Drivers must accelerate and brake smoothly to avoid falls on the tram.

APPROACHING TRAFFIC

When approaching traffic drivers should reduce speed. If there are stationary cars make sure the clearances are ok before proceeding if necessary use the gong to warn motorists. When approaching a stream of traffic, drivers should recognise the hazards and slow down the tram to a safe speed to be ready for U turns or turning cars. Another potential danger is motorists opening their doors.

ENTERING AND LEAVING SAFETY ZONES

When drivers are entering safety zones they should slow down to 10 kph and gong at least once. Watch for people running across safety zones, and be prepared to stop.

When leaving safety zones drivers must make sure that all people have boarded the tram and that there is nobody moving over the yellow line in the safety zone. When it is safe to do so the driver should gong and move off slowly out of the safety zone at 10 kph.

STOPPING PLACES

It is very important that drivers stop in the correct position and obey rules and regulations in regard to compulsory stops.

Drivers must stop at:

- Manual and Automatic Points
- A request stop where people want to get on or off.
- Stop at compulsory stops or any place shown in special instructions
- The stopping mark at a terminus
- Not stopped blocking cross streets cross walks, driveways or safety zones
- Stop with the front of the tram at the building line of a cross or side street except where there are track stop marks or other instructions apply.
- Stop where possible with the step opposite people waiting to get on
- Not be stopped on a sharp curve except in an emergency

Always be stopped at compulsory stops near railway crossings. When the points and signals are set to go, sound the gong before proceeding.

It is railway safety procedure that catch points are set against trams after the passage of each tram until they are ready to cross the rail line.

Drivers should sound the gong to alert the signalman that the tram is waiting to cross. When the points T light or disc are set correctly, sound the gong and when safe to do so, proceed with caution.

MANUAL AND AUTOMATIC POINTS

Automatic Points

Drivers MUST follow the proper procedures for automatic points to ensure that there are no accidents, side on collisions, due to driver error.

Slowly select the direction you want to travel by using the point selector in the driver's cabin. At a speed not more than 10 kph proceed through the first and second studs and select the direction of travel. (If you want to go right you must turn the point selector in the drivers cabin to the right etc).

If there is a tram in front, wait at the provisional stop (3 studs) for the front tram to leave. The front tram must clear the intersection before the second tram moves forward to the toe of the automatic points and compulsory stud marks

The driver must visually check the points are set in the right direction even if the lanterns are saying the points are correctly set.

If all the settings are correct and the traffic light or T light is set for the tram to proceed, the tram can proceed slowly. Tram drivers must always be ready to stop.

MANUAL POINTS

Drivers should stop at the compulsory stop marks at facing manual points and visually check that they are set for the right direction. If the track in front is clear the tram may then proceed. If there is a tram in front, the second tram must wait until the front tram has cleared the points and then make a compulsory stop, checking the points before proceeding.

PEDESTRIAN CROSSINGS

Tram drivers should be alert for any person near a pedestrian crossing as they might try to cross against the light. The lights could also change suddenly so it is important to drive at a speed that will enable you to stop safely.

ROAD AND TRACK REPAIRS

Drivers should be aware of road and track repair gangs working on the side of the road. They should slow down to a safe speed and be prepared to stop if necessary.

PASSING STATIONARY TRAMS

Drivers should take great care when passing stationary trams as pedestrians can walk out behind them. Driver should go past the stationary tram and slow down, and be prepared to stop.

Always travel past a stationary tram at a speed which will enable you to stop.

EMERGENCY VEHICLES

Emergency vehicles with lights and sirens on **MUST** be given way to.

DRIVING IN ADVERSE CONDITIONS

In adverse track conditions or heavy Braking application SAND should be used to avoid the tram going into a skid.

There are many conditions, which cause greasy rails, the most common being: -

1. When rain commences.
2. Frost or morning dew.
3. Track repairs.
4. Bitumen compounds.
5. Oil or melted tar.
6. Fallen leaves.
7. Motor vehicles driving over rails drying out after rain.(**VERY GREASY**)
8. New rails even when clean can cause conditions like greasy rails.
9. Grass clippings (Reserved track)

IT IS THE DRIVERS RESPONSIBILITY TO HAVE SAFE AND PROPER CONTROL OF THE TRAM AT ALL TIMES.

IN ADVERSE CONDITIONS DRIVERS SHOULD ALWAYS GIVE THEMSELVES MORE TIME AND DISTANCE.

TALKING

Drivers are often asked questions from the general public while they are driving along. This is a dangerous situation and drivers should wait until they are stationary before talking to the passenger. If necessary, tell the passenger to take a seat and you will talk to them at the next stop, where you can advise them on their query.

Tram Drivers should **ALWAYS** drive in a defensive manner, and avoid unnecessary accidents.

MOBILE PHONES AND ELECTRONIC DEVICES

The operation of any mobile telephone, transistor radio or any other personal electronic equipment is **NOT PERMITTED** whilst in control of a tram moving or stationary. This includes but is not limited to text messaging, hands free operation and games.

Drivers are also not to use or wear any type of headphones or ear piece while in control of a tram moving or stationary, even if not connected.

Employees are not permitted to read whilst their tram is in motion.

A.V.M.

When talking to Fleet Operations via the A. V. M. the tram should be stationary. It is dangerous communicating with anyone while the tram is in motion, and drivers must make sure that they are in a safe stationary position when using the A. V. M.

SPEED

The tram must be kept under control at all times. Speed should be adjusted for road and weather conditions and to accommodate other road users. All speed limits must be obeyed including school zones & shopping precincts as signed.