

The
Committee Secretary
House of Representatives
Standing Committee on
Communications, Transport
and the Arts
Parliament House
CANBERRA ACT. 2600

Villa 7
10-12 Meacher Street
Mt. Druitt NSW 2770
Tel: 02/ 9625-4317
30th. May 1999

Dear Sir/ Madam,

With this communication, I am lodging my submission on Managing Fatigue in Transport to the House of Representative Standing Committee, as per the terms of reference.

Personal Background and Qualifications, relevant to this inquiry:

Forty one years of driving experience. Out of these I have spent thirty seven years in the road transport industry in Europe and Australia on local, intra , interstate and international long distance driving.

Some five years have been spent in managerial positions within this industry.

I am an RTA of NSW accredited Heavy Vehicle Instructor and driver Assessor/ Trainer.

I am also holding an Occupational Health and Safety Officers Certificate for the services industries.

Involved in alternative health and healing practices.

Terms of Reference:

1 Causes of and Contributing Factors to Fatigue.

Segments

- 1 Sleep
- 2 Restless Sleep
- 3 Driving for more that 10 hours
- 4 Truck Cabins
- 5 Alcohol
- 6 Inadequate breaks
- 7 Cost cutting
- 8 Non adherance tp schedules
- 9 Dry eyes

What is Fatigue?

There is no single definition for fatigue:, it is a condition that slowly creeps up on the driver mostly between the hours of 11.0pm and 8.00am. During this time , the human body, which is used to be asleep, is forced to be awake and alert, rebels to this condition and wants to return to its sleep state, particularly when the last sleep period was either to short or restless.

It is a condition, that only lasts for a period of 20-30minutes. and can occur at any time. However it is during this brief timespan, when accident usually happen.

Early signs of recognising fatigue are among others; Heaviness in the eyelids, blurry vision, the need to constantly drink fluids, and being hungry at od times, sweaty hands,

stiffens or cramps in parts of the body, irritability and impatience, day dreaming and longing for a smoke.

Most long distance driving of heavy vehicles is carried out between the hours of 8.00pm and 8.00am, as vehicle trips are scheduled by operations personnel, to arrive at the point of delivery in the early morning hours (overnight runs).

Causes of Fatigue

1. Sleep, A person driving a vehicle over long distances, during normal sleeping times, that is generally during the night hours when the physical body is normally sleeping. This applies in particular to long haul drivers which mostly drive at night.

2. Restless sleep, although a person may be in bed for a period of 6-8 hours, but actually only sleep for some 2-3 hours. The rest of the time is spent tossing and turning in bed. this type of sleep will actually make a person more tyred then if they had not slept at all.

Getting less that the normal amount of hours sleep, will make a driver more likely to fatigue at some stage the following day.

3., Driving for more than 10 hours in a 24 hour period, or driving for long periods of time on several day's in a row. Drivers are more likely to fall asleep at the wheel, when long driving spells continue past the third day. This danger increases with every subsequent day spent driving.

drivers over 50 are also more likely to fall asleep at the wheel, that younger drivers.

4. To hot or stuffy truck cabins, can cause fatigue due to lack of proper ventilation, providing insufficient levels of oxygen in the air the driver breathes. This leads to a lack of oxygen in the blood and brain, causing drowsiness and tiredness feelings.

5. Small quantities of blood alcohol can also induce fatigue symptoms in drivers. These small quantities tend to make tho body feel tyred. This quantity may be less that the 0.02 legal limit for professional drivers.

6. Driving a vehicle for 10 hours even during day time, will make the driver feel tired if he/ she did not take adequate rest periods

7. Transport company management, in their efforts of reducing cost, use night linehaul drivers during day time, to do local work, instead of employing a local delivery driver. This Practice leaves the night driver with an inadequate rest break, before going on the next trip, being tired before he even starts his normal job.

8. Transport company's not adhering to their departure time schedules. Meaning a drivers starting time is at 8.00pm, the vehicle is Not ready to depart, till 11.00pm. The driver comes in at 8.00pm and has to wait around for three hours, mostly becoming involved in the loading of his vehicle, trying to get away early. This again results in the driver being already tired before starting actual work.

Having already worked for two to three hours, the driver still is expected to maintain his schedule and drive for another 10-12 hours to get to his destination.

9. Dry Eyes

Dry eyes are being linked to contributing to fatigue. Many accidents occur on long straight roads, where the eye for long periods looks straight ahead and in not moving. This lack of movement reduces the rate of blinking of the eye. Blinking lubricates the eyes.

A lack of lubrication makes the eyes dry, allowing grid and dirt to deposit themselves on it, causing irritations in the eyes, which in turn leads to strained vision and fatigue

2. Contributing Factors to Fatigue

- 1 Driver overweight
- 2 Eating habits
- 3 Sleeping
- 4 Inadequate breaks
- 5 Excessive driving/ working hours
- 6 Rough roads & vibrating vehicles

Fatigue does not hit the driver at once, it creeps up on him slowly. A good driver can recognise the early warning symbols of fatigue and act accordingly.

these early symptoms are; delayed reactions and slow responses, irregular driving speed eg. slowing down and speeding up, recognising traffic signals to late, errors in judgements, vehicle wandering across the road , fumbling gear changes, droning or humming in the ears, seeing things, aches and pains setting in, restlessness in the driver seat, wanting to close the eyes all the time and generally feeling tired..

1. Overweight of Driver

Many drivers are overweight and unfit, this causes the body to work harder to keep the metabolism going, consuming more energy and by doing so is running it self down. Causing early signs of tiredness.

2. Eating Habits

Most drivers consume large and heavy meals such as T bone steaks, bacon and eggs, which are unhealthy. Many of these meals are saturated with fat; example; bacon and eggs have a very high fat content and fried eggs, contribute to the production of bad cholesterol, which clogs up the arteries thus reducing the blood flow to the heart, limbs and brain. This in turn reduces the flow of oxygen to the brain, causing tiredness, = fatigue. The nutritional value of these meals is also questionable, as most of these have been destroyed during the cooking process. These meals then lie in the stomachs of the drivers for hours, being bounced around during the journey.

This again brings with it constipation, which leads to waste being retained in the body for much longer than should be, causing symptoms of fatigue.

3. Sleeping

Truck sleeper compartments are very hot in summer and inadequately ventilated. Drivers having to sleep in them during day hours, are subjected to heat and sweat, inducing an unrefreshing, non relaxing sleep, still being tired when awakening.

Driver sleeping quarters in transport terminals, "if provided", are usually located close to the working areas that create noises that disturb the sleeping driver

Many drivers are not likely to change their sleeping pattern to suit their job requirements. Meaning that they after getting home, instead of doing the chores first and going to sleep after, so they can sleep right up to the time they have to get up and go to work, they sleep first and do all the usual things after.

With a bit of luck they may get an extra hour or two sleep in, but this is not adequate, as it is a broken pattern..

Long distance drivers usually get about 4-5 hours continuous sleep, the remainder are scattered periods of dozing whilst waiting to unload or re load at various points

4. Inadequate Breaks

The 14 hour working day of a long distance driver, I consider to be excessive and a large contributing factor to fatigue related accidents. It is common practice in the industry, that drivers are expected to load/ unload their vehicle at their destinations, where they incur waiting times, eg. waiting in cues.

Because they have to move their vehicle frequently to stay in their respective slot, they are unable to get any rest, thus their actual working day is more like 16-18 hours, sometimes even more. To this time one can easily add another 40 minutes for vehicle maintenance such as refuelling, checking the oils, tyres, lights and so on.

In most cases, the driver is even expected to wash the vehicle as well on the week end, in some cases in their own time, just to keep their jobs.

5. Excessive Driving and Working Hours

As already mentioned above, the expectations placed on a long distance driver by many transport company's are at the least, "excessive", and at the worst irresponsible.

We are talking here about human beings, people with certain needs and requirements, that must be met in order for them to function properly.

The above statements of 16-18 hour working day's for drivers, have been common in the past and at one stage the industry was pushing for even longer driving hours.

At 16 hours, it appears on the surface, that the driver still gets an 8 hour break. Consider the following, a driver coming off a long trip, need some time to wind down, to release the tension built up, that is in his system caused by the constant physical and mental strain and alertness exerted on the body.

He also needs to spend some quality time with his wife and children, (if married), has to have a shower or bath and needs to attend to a meal and whatever chores there may be, that need his attention.

At the end of the day he may get 5 hours sleep, the quality of which can be good or not so good, depending on the circumstances.

Driving a heavy vehicle in either city or long distance work, is not as glorious as some picture this to the community, and I urge the members of the committee to take an extended trip in a heavy vehicle, to get some personal experience. **(I am certain, I can make arrangements for such an engagement, if the members wish to really understand, what truck driving is all about).**

6. Rough Roads and Vibrating Vehicles

Both of these factors are to be taken serious, for on many occasions they work in unison.

Many of our country roads are in a shocking state of repair, in particular the shoulders. This causes a vehicle to bounce and to break away from its normal course forcing the driver to consistently make adjustments and corrections, along with trying to stay in the seat.

These manoeuvres require a very high degree of concentration and alertness to avoid potholes and other rough patches on the carriage way which over a prolonged period of time leads to early signs of tiredness in the driver.

Vehicles that vibrate, more than one can normally expect, are also contributing to fatigue, by shaking the driver's body around for hours on end. Vibrations can be caused by

incorrectly balanced tyres, faulty suspension and worn universal joints, that cause the driveshaft to run out of round.

A further factor is; too much play in the kingpin/ fifth wheel coupling of a semi trailer and the ringfeder coupling for a truck and dog combination.

With each change in speed and gearchange, the driver gets thrown forward or pushed back in to the seat, as if somebody would have hit him..

3. Consequences of Fatigue in Air, Sea, Rail and Road Transport

- 1 Fatigued drivers
- 2 Transport company's
- 3 State and federal authorities
- 4 Onset of fatigue
- 5 Examples
- 6 Human factor
- 7 Repair costs
- 8 Environment

I do not have sufficient experience or expertise in air, sea and rail transport to comment on these matters. So I am limiting my comments to issues related to road transportation. The RTA of NSW, Qld. Transport and Vic. Roads in their heavy vehicle drivers handbooks, do not address the issue of "Driver Fatigue" in great detail. This is surprising, as these authorities have all the statistics and capacity to do research in to this subject. These authorities are also the ones, that complain of the involvement of too many trucks in accidents with fatalities.

Whilst writing this response to the inquiry, I am working on a book titled The Australian Professional Truck Drivers Guide, in which I am devoting a section to fatigue management. **I have to say here, that I am very disappointed, after writing to the RTA and four or five leading truck manufacturers, requesting some input and assistance, non of those have to this day seen fit, to respond in either a positive or negative way to my request. THIS LEAD ME TO WONDER, OF HOW MUCH REAL INTERESTS IN IMPROVING ROAD SAFETY IS OUT THERE. OR IS IT ALL JUST A PUBLIC RELATION EXERCISE.**

When one considers the recent article in the Big Wheels Section of the Daily Telegraph, about a pending class action against KENWORTH TRUCKS, it appears that my assumption is right.

1. The facts are, that there are numerous fatigued drivers on the nations roads and highways every night and day.

Many of these drivers are aware of the risks involved but are not saying anything or doing anything about it, for they fear for their jobs and what might happen to them and their families. Which is not surprising, with the federal governments industrial relations policies

So we have a situation, where the drivers on the one hand have to work under

unreasonable and unsafe conditions out of fear of losing their jobs, and with no one to help them, as the federal government tries to ban unions from workplaces through its workplace agreements.

2. On the other hand we have not all, but many transport companies, pushing their drivers beyond the limits, in some instances even supplying the drivers with stimulants to keep them going.

3. Then there are the state authorities which are constantly on the drivers backs, for relatively minor breaches of traffic regulations, hefty fines are issued. Example I was clocked by police radar on the open road, doing supposedly 107kph in a 100 kph zone. The Magistrate fined me \$100.00 plus cost and one demerit point. Yet John Singleton did 160kph in his Bentley on the Hume Highway, yet he did not get a conviction recorded against him and had to pay \$48.00 in costs only.

So the drivers are the meat in the sandwich, with the authorities, treating just like most doctors, the symptoms only and not the cause.

The cause of many of the fatal, fatigue related truck accidents, lies with transport company management. Many of these managers have never driven a heavy vehicle in their lives, and therefore have no idea, what driving is all about.

4. When fatigue starts to set in, a good and well educated driver, will recognise the early warning signs and take appropriate actions.

A less experienced driver will attempt to fight the symptoms. This may well work for a short period of time. After this the body demands his rest. The eyelids are getting heavier and heavier, the body say's," just close the eyes for a few seconds." The mind say's No, keep the eyes open, you have to stay alert.

But the frequency and length of the closed eyes are getting longer and longer. And because the mind is tired also, the foot eases off the accelerator resulting in a rapid decrease in speed. This can result in a vehicle following too closely, running up the tailgate of the other, which usually result in a big mess, with the drivers being either severely injured or killed.

5. An other example is, that after the eyes have been closed, the vehicle veers to the left, running off the road and down an embankment, rolling over and killing the driver. But more often it happens that the vehicle veers to the right in to the path of oncoming traffic.

The driver of the oncoming vehicle may also be somewhat tired, recognising and reacting to the danger too late resulting in a head on collision, of which the most likely outcome are severely injured or deceased persons.

There is not much time to engage in to some sort of defence, when two vehicles head towards each other at a speed of 80-100kph, as these vehicles respectively travel 22.2metres per second at 80kph and 27.7 metres per second at 100kph.

Mix these factors with no, or a delayed, (fatigued) driver reaction to an emergency, and

you have the ingredients for a potential fatality.

These are just some samples of what can happen, not only with heavy vehicles, but even more so with drivers of cars that engage in long distance driving.

RTA statistics however have proven, that fatal accidents involving fatigue and heavy trucks, has dropped by 73%. Fatal crashes involving heavy trucks have dropped by 40% and the number of persons killed in heavy truck accidents have dropped by 44% Whilst these news are encouraging, much more need to be done in this area.

The effects of this disease called 'Fatigue', are affecting the lives of most Australian in some form or an other

6. Firstly there is the human cos factor

On average, some 2000 people are killed on Australian roads every year, with many thousands more seriously injured, with a considerable percentage of these remaining crippled for the rest of their lives.

This leaves many families in situations they can not handle by themselves, both physical and financially. As these families or individuals require ongoing assistance, the cost in monetary terms, for insurance payouts, amounts to hundreds of millions of dollars annually.

7. Similarly, the cost to insurers on vehicle repairs, can run in to billions of dollars, when taking in to account that the average linehaul semi trailer/ prime mover unit costs around \$350.000.00

This cost, is reflected in the insurance premiums payable by vehicle owners, which in turn is where ever possible passed on to the consumer through increased freight charges.

Whilst damage to and loss of vehicles can be replaced and repaired, the loss of human life can nor be reversed, and leaves many families lives in ruins.

The loss or damage to cargo is an other major financial burden to either insurers, or manufacturers, as many carriers class themselves as "not common carriers" indicating that the consignor sends his goods at his own risk, and will have to wear any loss or damage.

8. A further and very important issue to consider is the environmental one. Dry freight is relatively easy to clean up. It is however the cartage of dangerous goods, that need some attention as poisonous and toxic chemicals and substances spilled in an accident, can produce an environmental disaster.

The rapture and subsequent explosion of an LPG tanker, can easily devastate an area of one square kilometre of the surrounding area.

- 1 Cowboy drivers
- 2 Shoert term profits
- 3 Driver responsibility
- 4 Manufacturer, retailer and customer responsibility

The mere fact, that this enquiry is being conducted, indicates to me, that the Fatigue Management Program mentioned in the July 1998 edition of the Owner Driver, is not in operation at this point in time.

1 There are still a number of transport companies out there, that employ the typical cowboy type drivers and push them beyond the limits permissible, paying low wages and supplying defective vehicle to the drivers but expect a first class job in return.

Unfortunately, there are also many young and inexperienced drivers out there, that drive for the glory of sitting behind the wheel of a 400 hp rig. In the hands of these drivers, a 60 tonne B double, or even an ordinary 42.5 tonne semi trailer can become a lethal weapon. for it is easy to bring these rigs up to speed, but it is a different story altogether, to bring them to a safe halt in an emergency situation, without being fatigued.

2. Many transport company's are trying to come to terms with driver fatigue, by trying to give their drivers a reasonable break inbetween trips. Others are still ignoring the hefty fines now imposed on company's breaking the rules.

Work related accidents are also having an adverse affect on their workcover insurance premiums. There are sufficient incentives in place for companies to adopt health and safety regulations and policies. however many managers can't see beyond the immediate short term profits and have the attitude of " dealing with an accident and safety issues, when the time arises. management must accept the responsibility for allowing a fair and achievable ETA(expected time of arrival) an the destination.

3. At the same token, not all of the blame can be laid at the feet of company management. The driver himself must also accept some responsibility when presenting himself ready for work.

This means; he should ensure that he is well rested, had adequate and good sleep, is free from any blood alcohol, takes appropriate rest breaks when required or getting tired, and simply saying no to the boss if requested to work beyond the legally allowed hours.

Transport company's, should , " depending on their size," have a number of spare drivers, to allow them to make alternative arrangements, to give drivers quality time away from work and truck.

4. Customers also responsible, by stipulating overnight deliveries

Manufacturers, wholesalers, Retailers and end users, are all to some degree responsible for many fatigue related accidents. The manufacturer promises the wholesaler, who in turn promises the retailer, to have the ordered goods at their doorstep the next morning.

The retailer then promises the customer overnight delivery. This leads the customer to expect next day delivery of the ordered goods.

This then place undue pressure on the carrier, to have the goods at their destination the next morning.

With departure times for the interstate or intra state vehicles falling behind schedule, the driver is the one who has to ensure that the goods get to their destination in time, regardless of how he feels.

This is a very dangerous and wide spread practice, that needs to be addressed in order to achieve a further reduction in fatigue and speed related accidents involving heavy vehicles.

To my knowledge, there are at present no educational programs taught by driving schools, nor the relevant state authorities, that deal with fatigue and its consequences on the road and after accidents have occurred.

5 Ways of achieving greater responsibility by individuals, companies and governments, to reduce the problem related to fatigue in transport

- 1 Compulsore education
- 2 Individual responsibility
- 3 Company responsibility
- 4 Government responsibility

1. The main thrust in achieving the target objective, a reduction in fatigue related accidents, in my opinion is the introduction of compulsory education programmes, which drivers and company management personnel would need to attend.

Very few driving schools, are in actual fact teaching the theories that surround driving cars or heavy vehicles for that matter.

This would be a good starting point for these schools to implement and teach at least a program, that deals with fatigue and its consequences whilst driving.

2. Individual Responsibilities

1. Drivers are to be responsible for their own time off management.
This means they will have to ensure, that they get adequate and restful sleep.
2. To ensure that they take not only the legally required breaks, but also take any breaks, necessary even if they are out of sequence, when getting tired.
3. To change their eating habits from the present heavy meals once every five or so hours, to smaller, light meals but taken more frequently.
4. To include in their diet more healthy foods such as fruits and vegetables

5. To drink more water. Coffee and tea contain caffeine which partially responsible for the production of bad cholesterol in the body.

Water is also more refreshing. Our bodies consist of 70% water, this is the element that

needs replenishing on a regular basis.

6. Are to engage in regular exercises, to maintain physical health and fitness. Many drivers are drastically over weight, which in itself can bring with it a feeling of tiredness.

7. Should not consume any alcohol for at least 24 hours prior to commencing driving Even small quantities of alcohol in the blood, can bring about tiredness in the body.

8. Adjust daily activities in such a way, that where possible they work similar to the normal pattern of sleeping at night and being awake during day time hours and to get in to a set routine of sleeping through the day, to be able to stay awake at night.

9. Should ensure that the cabin is adequately ventilated, by either keeping the windows open, or switching on the airconditioner.

10. Where possible drivers should not use the same route all the time, as this can cause boredom and a lack of alertness, leading to early signs of tiredness.

11. Talking to other drivers on the CB is an other way of staying awake. It is however illegal to use a hand held microphone whilst driving.

12 Avoid drugs of any description. If medication is to be taken, then the pharmacist or doctor should be consulted in regards to their suitability whilst driving.

2. Company Responsibilities

1. Managers of transport company's along with operations personnel and supervisors, are the superiors of drivers. these are the people that need to be educated and made responsible for ensuring that their drivers do not exceed the legally permitted driving and working hour, on a daily and weekly basis, for they are the ones that issue the orders.

2. Company's should also have to provide proper facilities for their drivers, where they can rest peacefully and undisturbed, should they not be in a position to go home, or where the break is of a 2-4 hour duration only.

3. Many transport companies do not offer their drivers and contractors any amenities at all. As a consequence drivers have to rest in the sleeping compartments of their truck, usually parked in the depot, with all the work and noise going on around them, making it impossible to sleep.

At a recent visit to Mack Trucks Australia operations in Chipping Norton/ Sydney, I had the opportunity to use their driver waiting room, consisting of about 10 square metres of

floorspace, one chair and a double bunk. A plant, TV and some magazines. It did not have a table and was located in the wrong spot eg. right next to the main truck entrance.

Who would be able to sleep there with the constant rubbing of vehicles in and out and engines roaring.

4. Transport company management should jointly with the driver be held responsible for any accidents or incidents occurring, as a result of fatigue and excessive driving/working hours of the driver. Drivers are people too, and have needs that need to be respected, and should be looked at as for what they are, professionals, driving super modern and sophisticated equipment. And not as it was back in the seventies, being a labourer with a truck licence.

5. The truck safe scheme introduced in the early nineties, would be worth expanding, and companies should be encouraged to sign up.

6. The introduction of two up driving," although very unpopular with the industry," should be given some serious consideration. This scheme works well in Europe

3. Government Responsibilities

1. Government regulatory bodies, are often staffed with bureaucrats, that would not know the difference between the back and front of a truck. They in general do not listen to those with experience in the industry. If something looks good on paper, they are likely to implement or regulate on it, leaving the industry to pick up the pieces.

2. The introduction of further safe T cam locations, heavy vehicle check points and random check by police and RTA inspectors, may be welcomed by some, will in general be seen as further harassment's, victimisation and revenue raising practices and will be most unwelcome by the industry.

3. A regulated reduction in driving and working hours for long distance drivers, is an avenue the authorities should look in to. Linehaul drivers can clock up as many as 75 to 80 hours per week. this of course is not the official entry in the logbook

Listed below are the European Union driving hours and the Australian driving hours as a comparison.

Europe

Maximum permissible driving time in one shift,- 9 hours

Twice weekly 10 hours

Max weekly driving time 6 day's 56 hours = 3X9hr + 2X 10 hr= 56 hrs.

Max. fortnight drivng time 12 days 90 hours = 56hrs week 1 34hrs week 2

54hrs week 1 36hrs week 2

45hrs week 1 45hrs week 2

13

Max. uninterrupted driving time 4.5 hours

Minimum duration of rest breaks 45 minutes, or 3X15 minutes

Minimum daily rest periods for freight and passenger

transport 11hrs. with the possibility of reduction to 9hrs 3 times per week, provided equalisation take place in the following week.

Minimum weekly rest periods, 45 hrs, uncluding one 24 hrs period

The week commences at 00.00hours Monday and finishes at 24.00hrs Sunday.

Heavy vehicles are not permitted on the roads, between the hours of 24.00hrs Saturday to 22.00hrs Sunday night, with the exceptions of vehicles carrying perishable goods.

The above figures are for one up driving only.

Two up driving requires a minimum rest period of each driver of 8hrs in a time frame of 30hrs, irrespective of the presence of a sleeper cab on the vehicle.

Australia driving hours, as per the new National Driver Log Book

Max. 5 hrs driving, there after a 30 minute or 2X 15 minutes break

12hrs. driving in any 24hr. period with a rest period of 12hrs. including an 8hr. continuos break.

72hrs. driving in any 7 day 168hr period and a total of 96hrs. in rest periods

288hrs. driving in any 4 week 672hr. period, 384 hrs. in rest periods, with a 96 hr. break as one period, or any number of 24hr periods, totalling 96 hrs.

I trust, that the information provided, will be of benefit to the Senate Committee

Yours faithfully,

John Liszikam