



Northern Territory
**ROAD TRANSPORT
FATIGUE MANAGEMENT**





Northern Territory
**ROAD TRANSPORT
FATIGUE MANAGEMENT**





Northern Territory
**ROAD TRANSPORT
FATIGUE MANAGEMENT**



Contents

1	Background	4
2	Operator Duty of Care Responsibilities	5
3	Codes of Practice	6
4	Who should use the Code	7
5	Defining Fatigue	8
	5.1 How the Body Clock Works	8
	5.2 The Need for Sleep	9
	5.3 Fatigue as a Safety Issue	10
	5.4 How to Identify Fatigue	11
	5.5 Northern Territory Approach to Fatigue Management	11
6	The Environment	12
	6.1 Guiding Principles for Fatigue Management	12
7	Fatigue Management Systems	14

I **Background**

Northern Territory and Western Australia traditionally have not regulated driving hours and have relied on industry's common sense approach to the matter. They are the only jurisdictions exempted from a national driving hours regime involving log books.

In agreeing to this exemption, the Ministerial Council for Road Transport has recognised the different operating environment in remote areas and accepted there is not a significant heavy vehicle fatigue problem in the Northern Territory.

Notwithstanding this, Northern Territory transport operators need to ensure they meet their duty of care obligations for the provision of a safe and healthy working environment.

This code aims to ensure the Northern Territory Transport Industry's good safety record in fatigue management continues.

The objective of the code of practice is to provide operators with a basic set of key principles they should apply in the management of fatigue in the workplace. These principles have been based on the practical experience of Northern Territory operators.

The way in which the principles are applied in individual business will be determined by the transport operators themselves, so that the operating procedures are best tailored to suit their individual needs.

This code is a voluntary code of practice for fatigue management for the Transport Industry in the Northern Territory.

This code has been jointly developed by Northern Territory industry and government agencies and will be further developed and refined over time through consultation with industry and other jurisdictions.

Operator 2 Duty of Care Responsibilities

Occupational Health and Safety legislation in the Northern Territory places responsibilities on various people to ensure the health and safety of others.

Designers, manufacturers, importers/ exporters and suppliers of equipment, plant and material as well as employers, owners and occupiers have a general duty of care to people who may be affected at the workplace.

For employers, the obligation is to provide a healthy and safe working environment and to provide safe systems of work.

3 **Codes of Practice**

In the Northern Territory, as is the case in other parts of Australia, the legal framework for occupational health and safety consists of Acts and regulation, as well as codes of practice.

The Northern Territory Work Health Act sets out the general principles including the duties of care and the penalties for failing to meet these obligations.

The regulations establish the level of performance that needs to be achieved in meeting the obligations under the Act. In the Northern Territory this is a performance based system which focuses on outcomes and not the process to be followed.

Under the Northern Territory legislative framework codes of practice are non-mandatory and provide practical detail on at least one way of achieving the outcome or level of performance set out in the Act and Regulations.

A person or corporation does not commit an offence by failing to follow this code of practice, but has the onus of proving that what was done provided the same level of safety as the method detailed in the approved code.

Should an incident proceed to court, the court may look to this code as a benchmark of what would reasonably be expected of an operator in the management of fatigue. The operator could be required to produce evidence of compliance with the code.

4 Who should use the Code

Transport operators typically exercise a risk management assessment that includes components such as procedures to ensure compliance with road regulations and vehicle maintenance. A code of practice for fatigue management is another component of the system.

This code should be used as a basic benchmark for good practice and as a component of a total risk management system by:

- Transport operators;
- Freight forwarders and consignors;
- Livestock transporters;
- Commercial bus operators and tour vehicle operators;
- Light commercial vehicle drivers;
- Drivers.

Note: Many bus companies already satisfactorily operate under log book and trip systems as a result of company policy.

For employers, the obligation is to provide a healthy and safe working environment and to provide safe systems of work

5 **Defining Fatigue** **How the Body Clock Works** 5.1

Fatigue is a common problem in both short and long distance bus and truck driving. It can be defined as a loss of alertness which eventually ends in sleep. This loss of alertness is accompanied by poor judgement, slower reactions to events, and decreased skill, such as in vehicle control. It affects the efficiency, effectiveness and safety of a driver's performance in carrying out the driving task.

Fatigue can result from long or arduous work, little or poor sleep and the time of day when the work is performed and sleep obtained. It can be influenced by health and emotional issues, or by several of these factors in combination.

Importantly, fatigue impairs a driver's judgement of his or her own state of fatigue. This means that effective management of fatigue should not be the responsibility of the driver alone.

Human beings are day orientated, designed to work in the daytime and sleep at night. Our internal body rhythms cause regular variations in individual body and mental functions during each 24-hour period. For instance, our body temperature, heart rate, blood pressure, breathing rate and adrenaline production normally rise during the day and fall at night. These rhythms influence job performance and quality of sleep. Most of the body's basic functions show maximum activity by day, and minimum activity by night. The body rhythms affect the behaviour, alertness, reaction times and mental capacity of people to varying degrees.

Crash risk increases when the driver is driving at times when he or she would normally be asleep. There is also a crash risk during the mid-afternoon "siesta hours".

Work practices may disrupt eating and sleeping routines and affect a driver's body rhythms or body clock, leading to cumulative or banked fatigue. Once this level of fatigue is reached, the only solution is sufficient good quality sleep.

This increases the probability of falling asleep at the wheel and crashing. Stimulant drugs may reduce the likelihood of falling asleep when drowsy, but they don't reduce the need for sleep.

Sleep which is delayed by drugs will need to be made up later.

5.2 The Need for Sleep

We all have an irresistible need to sleep and the urge to sleep is greatest during the night and early morning when most of us would normally be sleeping. However, people differ in the amount of sleep they need and their tolerance levels if they don't get enough sleep. This should be addressed by a Fatigue Management System. Studies show six hours sleep a night is the usual minimum, otherwise the crash risk increases.

The most beneficial sleep is one taken in a single continuous period. The restorative effects are less if the sleep is split between day and night time. Some people experience excessive sleepiness during the day, often combined with breathing problems when asleep. This is a medical condition and needs treatment and is one of the criteria medical practitioners use in examination of drivers. (Ref: National Road Transport Commission (NRTC) medical guidelines).

Poor sleep, such as sleeping in a moving vehicle, or a small amount of sleep over several days leads to severe sleep debt and the irresistible urge to sleep.

5.3 Fatigue as a Safety Issue

Driver fatigue is an important safety issue for the road transport industry world wide. The NRTC reported in its Driving Hours regulatory impact statement that research examining crash causation, has estimated that fatigue was a contributing factor in between 5 percent and 42 percent of truck crashes.

- Forty-two percent of drivers involved in crashes on rural roads near Adelaide reported being fatigued prior to the crash.
- Thirteen percent of rural fatal accidents in Western Australia were assessed as due to fatigue.
- In Queensland, 5 percent of single truck crashes were due to the driver falling asleep. Half of these crashes involved casualties, 60 percent occurred between 10 pm and 6 am and more occurred towards the end of the week.

- A Victorian Coroner's report identified 9.1 percent of crashes were caused by fatigue (5.4 percent car driver, 3.2 percent articulated truck driver and 0.5 percent rigid truck driver).

A 1987 survey of truck drivers reported that 13 percent considered that fatigue (truck or car driver) was a factor in crashes, while in a 1991 survey, truck drivers ranked fatigue the fourth most important causal factor in truck crashes. (NRTC Draft Regulatory Impact Statement: Truck Driving Hours 1997, Pg 13).

5.4 How to Identify Fatigue

Drivers working long hours or working night shifts tend to take more naps during leisure hours and sleep deficit builds up over several nights of work with poor or little sleep. Therefore, people working at night are generally more tired than people working during the day.

Fatigue indicators include:

- not feeling refreshed after sleep;
- a greater tendency to fall asleep while at work;
- more frequent naps during leisure hours;
- feelings of fatigue or sleepiness;
- extended sleep during days off; and
- increased errors and loss of concentration.

Northern Territory Approach to Fatigue Management 5.5

The Northern Territory code of practice for fatigue management takes an alternative approach to regulated hours, where prescriptive driving hours and log books are used. The Northern Territory Code of Practice focuses on safe outcomes as a result of appropriate risk assessment based on the task at hand, the application of appropriate rest times, and the adoption of driver health best practice.

6 The Environment

The majority of the transport task in the Northern Territory is undertaken by the road transport industry via the main highway accesses into and out of the Territory from the neighbouring States of Queensland, South Australia and Western Australia.

A proportion of the task involves the movement of freight from the rail head in Alice Springs to Darwin via the Stuart Highway. The main road environment in the Territory is national highway, characterised by, or consisting of, sealed, two lane standard road with long, straight, flat stretches, relatively low traffic levels and a limited enforcement presence.

The area is generally referred to as part of the remote area zone west of the Great Divide. Climate is an important factor with high temperatures for a substantial part of the year and a monsoonal rain situation. The area is heavily dependent on road transport and freight costs are an important factor in costs overall. There are regular

serviced and unserviced stops along the main access routes. The majority of vehicles used for this task are typically 115t road trains up to 53.5 metres in length, speed limited to 100 km/h, with an average cost of \$700,000 per triple configuration.

Guiding Principles for 6.1 Fatigue Management

Historically a guiding principle in the successful management of fatigue in the long distance transport industry in the Territory has been the ability and flexibility for drivers to stop and take rest when they themselves decide they need it and not when bound by prescriptive driving/working hours.

The guiding principles include but are not limited to the following:

- ▶ **Drivers must be in a fit state to undertake the task.**
- *A driver where possible should be given appropriate time to plan and prepare for a working period involving long shifts;*
- *A driver must present in a fit state for work and must be free*

- *from alcohol and drugs;*
 - *Drivers need to be adequately rested prior to commencing duty;*
 - *Unfamiliar or irregular work rosters should be avoided;*
 - *In night operations drivers and employers and freight forwarders need to take into account increased crash rates due to fatigue between 1 am and 6 am;*
 - *Drivers should be medically fit and should have regular assessments by medical practitioners;*
 - *Drivers should have access to lifestyle information and where necessary counselling to assist in presenting in a fit state for work.*
- ▶ **Drivers must be fit to complete the task.**
- *Provide appropriate comfortable sleeper berths if drivers will need to sleep or rest in the vehicle;*
 - *Drivers should have access to information and assistance to promote management of their health;*
- *Provide vehicles and other accommodation with suitable facilities for rest;*
 - *Provide air-conditioned vehicles where possible;*
 - *Provide a working environment that meets Australian standards for seating and sleeping accommodation;*
 - *All schedules should be flexible to allow drivers to rest when tired and take short breaks when required;*
 - *Minimise night time schedules and rosters;*
 - *Rosters and schedules, where possible, should be set sympathetically to take into account the rest habits and needs of individual drivers.*
- ▶ **Drivers and minimum periods of rest.**
- *Drivers need to take two periods each of at least twenty four hours rest in a fourteen day period;*
 - *Drivers need to take at least six hours rest in any twenty four hour period;*
 - *Drivers need to monitor their own work performance and take regular periods of rest to avoid continuing work when tired.*

7 **Fatigue Management Systems**

The previous sections of this code of practice outline fatigue and the basic principles in managing fatigue. This section provides guidance on what should be considered in developing a fatigue management system for drivers.

An essential element in complying with operator Occupational Health & Safety responsibilities involves the effective assessment of risk and hazards, the identification of controls to minimise the risk, and creating a formal record of what you have done.

Other important components of a systematic approach are the allocation of responsibilities to managers, supervisors and drivers, and consultation between these parties; information, instruction and training; and the ongoing monitoring

and review of all of the various components of the fatigue management system.

An example may involve the development of a clear policy statement on fatigue management based on the principles contained in section 6 of the Northern Territory code of practice. The document should clearly and simply state how you intend to comply with the principles contained in your policy on fatigue and what records you intend to keep to evidence compliance.

The document may state your policy through a checklist on trip planning, rest/work periods, rostering of drivers, incident reporting and recording, and driver health management.

The records that will assist you to comply with your policy and duty of care responsibilities include but are not limited to :

- risk assessment checklist;
- safety plan checklist;
- driving records;

- staff rosters/records;
- medical records;
- incident reports including record of investigation and action taken;
- evidence of driver experience, competence and qualifications; and
- record of driver health training and information provided to drivers.

Most of these records are already kept by operators and it may simply be a matter of modifying existing recording systems. Guidelines on the development of Risk Assessment and Safety Plan checklists are published in the Guide to Safety Management 4th Edition, by Northern Territory Department of Industries and Business, Work Health. The guide and practical advice are available free from Work Health.

It is a good idea to involve drivers in the development of your policy. This ensures the approach is realistic and

reflects what happens on the road and encourages driver ownership of the policy.

Operators are already responsible for employee health and safety and this code is provided as a guide to assist operators to meet their obligations. The code applies to the Northern Territory only and Northern Territory drivers travelling into a regulated zone must comply with the regulation in the particular jurisdiction. Further information on national schemes can be obtained from the Department of Transport and Works or the National Road Transport Commission.