

Purpose

To provide apprentices with a guideline to take reasonable care for their own safety and health at work. They should also avoid adversely affecting the safety and health of other people in workplaces and on the road.

Scope

Electrical Group Training (EGT) requires their apprentices to follow host employer's safety instructions, cooperate with their Host employer on work-related safety and health matters and tell their Host employer and EGT about any work-related injuries or anything that they consider hazardous in their workplace.

Every apprentice must be aware of their duty of care and to not place the safety and health of others at risk by being fatigued.

Apprentices who know that they are working the following day must endeavour to have a full night's sleep and be able to carry out the tasks assigned to them safely.

Apprentices who believe fatigue may be affecting their ability to work safely, are to advise their Host Employer and EGT immediately so the issue can be resolved.

Outline

Fatigue is the general term used to describe the feeling of being tired, drained or exhausted. Fatigue is accompanied by poor judgement, slower reactions to events, and decreased skill. Fatigue can affect a person's ability to work safely. This hazard should be identified, assessed and controlled the same as any other in the workplace.

This Guideline focuses on safe outcomes as a result of an appropriate risk assessment based on the task at hand, the application of appropriate rest times, and the adoption of safe working practices.

The advantages of managing fatigue in the workplace can include:

- reduction in workplace incidents and work-related claims
- reduction in absenteeism and staff turnover
- reduction in damage to plant and equipment
- improvement to work quality, performance and productivity

Causes & Symptoms of Fatigue

Fatigue can result from long or arduous work, mental exertion, little or poor sleep or due to the time of day when the work is performed. It can be influenced by health and psychological issues, or by several of these factors in combination. Family responsibilities, social commitments and lifestyle, may also be causes of fatigue.

The working environment can also be a contributing factor in the onset of fatigue.

The body's natural rhythms, or "body clock", also have an impact, particularly for those who work at night or who work for extended periods. Fatigue can accumulate over a period of time.

Fatigue is accompanied by poor judgment, slower reactions to events, and decreased skills.

Where fatigue may affect a person's ability to work safely it must be identified, assessed and controlled like other hazards in the workplace.

Importantly, fatigue impairs a worker's judgment of his or her own state of fatigue. This means the effective management of fatigue should not be the responsibility of the worker alone. Both Host employers and Apprentices have a role to play in making sure any risks associated with fatigue are minimised.

There are early warning signs when a person is fatigued, and these warning signs should not be ignored.

Key Hazards

Fatigue is a risk that may be caused by any number or combination of hazardous factors identified below:

- mentally or physically demanding work;
- long periods of time awake;
- inadequate amount or quality of sleep;
- inadequate rest breaks;
- disruption of circadian rhythms (that is, working when we would normally be asleep or sleeping when we would normally be awake);
- environmental stresses (e.g. Heat, noise, vibration); and
- work scheduling.

Fatigue can:

- increase error rates;
- slow reaction times;
- increase the likelihood of incidents and injuries, and
- cause micro-sleeps.

The effects of fatigue on health and work performance can be short term and long term. Short-term effects on an individual include impaired work performance, such as the reduced ability to:

- concentrate and avoid distraction;
- think laterally and analytically;
- make decisions;
- remember and recall events and their sequences;
- maintain vigilance;
- control emotions;
- appreciate complex situations;
- recognise risks;
- coordinate hand-eye movements; and
- communicate effectively.

Long-term effects on health that are associated with shift work and chronic sleep loss may include:

- heart disease;
- diabetes;
- high blood pressure;
- gastrointestinal disorders;
- depression; and
- anxiety.

Control Measures

The following is a list of control measures and methods that should be used to prevent and manage fatigue related issues for EGT apprentices. These control measures should be adopted at the workplace and also at home where applicable.

Sleep:

- For the human body to function normally it requires adequate, regular and consistent amounts of sleep. Most adults need between 6 and 8 hours uninterrupted sleep in a 24 hour period. If a person does not have enough sleep, then 'sleep debt' accumulates which can influence good decision making and increase the likelihood of making mistakes. Sleep debt is the difference between the amount of sleep needed to maintain alertness and performance, and the actual amount of sleep one has. Sleep debt can accumulate after one night of reduced sleep or over a number of nights where sleep is reduced.

Diet:

- Low kilojoule diets, low carbohydrate diets or high-energy foods that do not contain the appropriate nutrients will not provide the body with enough fuel or nutrients to function at its best. Quick fix foods, such as chocolate bars or caffeinated drinks, only offer a temporary energy boost that quickly wears off and worsens fatigue. To reduce the onset of fatigue, a balanced diet high in nutritional value is recommended.

Exercise:

- Physical activity is known to improve fitness, health and wellbeing, reduce stress, boost energy levels and aid in sleep. Regular exercise is also an effective treatment for anxiety and depression, which may also contribute to fatigue.

Relaxation:

- Relaxation can assist the body and mind in coping with different and unfamiliar situations, which may otherwise cause fatigue.

Alcohol and Drugs:

- Alcohol and drugs should be avoided to reduce fatigue. Alcohol is a depressant drug that slows the nervous system and disturbs normal sleep patterns. Other drugs, such as cigarettes and caffeine, stimulate the nervous system and make insomnia more likely.

Rest Breaks:

- The risk of employees developing fatigue, as well as muscle and soft tissue injuries, from uncomfortable or repetitive tasks, may increase if employees work long periods without breaks. Employees should take adequate and regular breaks. If practical, employees should take their break away from their normal working environment and utilise the lunchrooms where available.

Working Hours

Establish proposed hours of work for apprentices and their hosts and:

- discuss any new work arrangements with relevant employee groups prior to finalisation
- assess the resulting health and safety risks.
- Ensure that the adopted arrangements:
- limit regular scheduled work periods to 12 hours or less

Provide at least ten hours break between successive work periods and, whenever practicable, at least one rest day in every seven day period

- minimise the potential for fatigue, impaired work performance and, as far as practicable, social disruption
- do not exceed any statutory limits on the duration of work involving Hazardous and Noxious Substances.

Where rotating shifts, night shifts, scheduled 12 hour work periods, six or more successive work periods greater than 8 hours, or more than 60 hours in any seven day period are required, ensure that a:

- documented risk management plan is developed and implemented, and includes a risk assessment and control strategies, in consultation with their staff to manage their safety. It should also include the provision of rest and meal breaks
- training programme on the health and safety implications and relevant control measures is established. All shift work rosters must be managed to ensure employees receive adequate rest between shifts. If employees are required to perform night work, other than in emergency situations, they should be given at least 24 hours' notice. Where possible, a longer period of notice should be given so that employees have time to adjust to their activities. Where employees will regularly work more than 48 hours per week and/or shifts exceeding eight hours, consult a professional occupational hygienist and, where warranted, adjust occupational exposure standards if occupational health exposure risk is identified (E.g. exposure to noise, airborne contaminants, etc.).

- Prior to the appointment or transfer of employees to shift positions or positions regularly requiring extended working hours, arrange for a health assessment to detect any relevant medical conditions which could adversely impact on the appointment.

Working hours may differ for each employee depending on the position of the employee and the work requirements. Overtime must be managed effectively to ensure employees do not become fatigued. This may include a rotation system to ensure that employees do not work excessive hours and includes the provision of rest and meal breaks. Where there is no agreement in place or requirements are not specified, rest breaks of 30 minutes must be taken no longer than every 5 hours during 12 hours shifts. Breaks should preferably be taken every 4 hours (e.g. at the 4 and 8 hour marks).

Abnormal Hours of Work

Where a person needs to work more than 12 consecutive hours due to an abnormal requirement, the workplace manager:

- ensures there is no reasonable alternative
- ensures the person has a break of at least eight hours before the next work period
- determines the needs for transport to the employee's home at the conclusion of the work period and return to work at the beginning of the next work period
- ensures the employee's work period on the following day does not exceed 12 hours.

Shift Schedule Matrix

Residential			
Normal Shifts	12 hours	10 hours	8 hours
Consecutive Shifts – maximum	7 shifts	9 shifts	10 shifts
Mandatory Days Off (2 days off allows 48 hours for sleep and recovery)	2 days	2 days	2 days
Outages	12 hours	10 hours	8 hours
Consecutive Shifts – maximum (inclusive of normal shifts)	14 shifts	14 shifts	19 shifts
Mandatory Days Off (2 days off allows 48 hours for sleep and recovery)	2 days	2 days	2 days

Work Types

Work type must be taken into consideration when considering work scheduling, hours and rest breaks. The following must be taken into consideration:

- Nature of the tasks being undertaken (e.g. monotonous, physically exerting)
- Work environment (e.g. noise, vibration, heat and cold)

Both the nature of the tasks and the work environment play an important role in fatigue onset. The rest breaks, hours and work scheduling must be agreed upon and documented with staff using the risk management / SWMS process.

Should fatigue critical tasks be identified, potential control measures to implement include:

- scheduling critical work for certain hours when the risks may be lower, for example, where practicable, scheduling potentially higher risk work for times when people are normally awake to align with the body clock;
- avoiding the scheduling of work during periods where employees may be potentially fatigued;
- for example, between 2.00 am and 6.00 am when people are normally asleep;
- in some situations, controlling the level of risk by avoiding the need for people to work alone; and
- ensuring there are adequate breaks between shifts/schedules so that staff are not potentially at risk of becoming too affected by acute sleep deprivation or fatigue to carry out work in a safe manner.

Travel Considerations

Managers and Supervisors must consider travel requirements of employees when requesting employees work extended hours. This is important where employees are working at remote locations and driving requirements are greater than two hours total per day. Where the driving requirement is greater than two hours total for the day, the additional driving time for that day must be included as work hours in the calculation for maximum hours worked. The same applies when remote employees are expecting to drive to their residence at the conclusion of their living away from home period.

Modification of maximum working hours due to driving considerations do not apply to when the worker is not in control of the chosen transportation (ie taxi, train, bus, plane etc). However, consideration should be given to workers who have additional driving time following travel on a plane, train or bus (E.g. Driving to home from the airport). If the total time working and travelling is likely to exceed, or exceeds 14 hours, consideration should be given to providing overnight accommodation or taxi to/from the place of pick-up to avoid exceeding maximum working hours.

Reporting of Fatigue

All employees are required to report incidents/occurrences of fatigue in themselves or others to their immediate supervisor, or to their representative, without fear of criticism or retribution. This requires understanding and support from all levels of the organisation, including management, immediate supervisors and colleagues.

Any timesheet that is in excess of hours in Shift Schedule Matrix must be reported to ETI WHS Department. EGT will monitor the time sheet information presented for pays and when the trigger points are reached as set out below we will take the appropriate action to ensure the required breaks are taken.

1. Work patterns as presented on time sheets outside the above limits are to be brought to the attention of the Operations Manager or GM of EGT.
2. The Operations Manager or GM of EGT will use discretion in determining if there is a continuing pattern developing or it is a one off situation.
3. If there is a consistent breach of these limits the relevant Field Officer will be notified and they are to take the matter up with the Host Employer for resolution.
4. A refusal by the Host Employer to comply with requests by the Field Officer may lead to withdrawal of apprentices.

Employee Assistance for Fatigue Issues

All personnel are encouraged to seek advice and assistance from the confidential counselling service provided by the EGT's Employee Assistance Provider. Self-referral is the preferred option, however if an immediate supervisor becomes aware of an ongoing fatigue problem with an individual then the supervisor may refer the individual to the EAP service. Further assistance and management of individuals with ongoing and unresolved fatigue issues will be handled on a case by case basis.

Reference Documents

- EGT Risk Register
- ETI Legal Register
- Work Health and Safety Act 2020
- Work Health and Safety (General) Regulations 2022
- Code of Practice Working hours - Commission for Occupational Safety and Health
- Code of Practice Fatigue management for commercial vehicle drivers - Commission for Occupational Safety and Health