



TARONG ENERGY LIMITED

OCCUPATIONAL HEALTH & SAFETY PROCEDURE FOR

FITNESS FOR WORK - FATIGUE MANAGEMENT

OHS-PROC-406

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1.0 Purpose

This fatigue management procedure was developed to encompass the guidelines set by the Common Policy and Procedure for the Management of Fitness for Work within Queensland Government Owned Generators compiled by employee and management representatives of Tarong Energy, Stanwell Corporation, and CS Energy and State Officials of AMWU, APESMA, ASU, ETU and CFMEU (M&E).

This fatigue management procedure:

- o provides standards for the management processes for the elimination or minimisation of risks associated with fatigue,
- o shall serve as a minimum standard,
- o provides organisations and their employees, contractors and visitors with a greater understanding of the risks related to fatigue,
- o is designed to manage the health and safety risks resulting from fatigue related impairment.

Any possible longer term effects of particular work patterns for example the psychosocial effects are not considered in this procedure.

2.0 Context and Scope

This fatigue procedure applies to all TE employees, contractors and visitors whilst at the workplace or whilst carrying out activities on behalf of (or when representing) TE.

Fatigue related impairment is considered an identifiable workplace hazard. Like any hazard, the controls employed to manage the risks posed by fatigue are based on sound principles. The most effective means to manage the effects of fatigue is to have restorative sleep.

Work rosters are the primary means employers use to establish the working hours of employees.

The first order of control to manage fatigue outlined in this document is derived by assessing the opportunity that particular work patterns provide for restorative sleep. The duration of breaks or limits of planned rosters promoted in this procedure are based on the opportunity for restorative sleep provided by rostered work patterns.

3.0 Definitions

The definitions in this document pertain only to the matters dealt with in this document. They shall not be used to infer rights and/or obligations in any other industrial mechanism.

Term	Definition
24-hour Period	A rolling period of 24 consecutive hours.
On Call	Persons rostered to be available to respond to plant contingencies outside their rostered attendances.
Call Out	A period when a person is required to work outside their rostered attendance due to an unplanned event.
Circadian Rhythm	A bodily rhythm that is cyclic and recurs every 24 hours. It increases alertness and performance during the day and drives us to sleep at night.
Compulsory Break	Break periods as defined in Section 15.
Consultation	The timely exchange of relevant information and ideas in such a manner that the parties have the actual and genuine opportunity to influence the outcome.
Contingency	A future event which is possible but cannot be predicted with any certainty.
Contractors	A person who carries out work under a contract for services with TE, either as an individual or as an employee of a company other than TE or its related bodies corporate as defined in the <i>Corporations Act 2001 (Cth)</i> .
Crisis	A time of severe difficulty or danger.
Employee	Person having a valid contract of employment with TE and/or is in receipt of salary or wages from TE or its related bodies corporate as defined in the <i>Corporations Act 2001 (Cth)</i> .
Employee Assistance Program (EAP)	The EAP is provided by trained professionals operating externally to TE. They provide counselling, information and assistance on a wide range of problems including work stress, relationship and family problems, conflict and managing change, and other issues that may lead to fatigue problems.
Emergency	A serious unexpected and potentially dangerous situation requiring immediate action.
Essential Personnel	Personnel vital to the resolution of the crisis.
Extra Ordinary Hours	Successive days of greater than 12.5 hours.
Fatigue	A state of impaired physical and/or mental performance and lowered alertness. Influences on fatigue include, but are not limited to restorative sleep, physical or mental activity, refreshment, time of day and length of time awake.
Fatigue Assessment	Is a process to assist in determining fatigue risk level and suitable control measures for personnel. It may be used for situations such as call outs, extension of work time, random, due cause etc.
Handover	A meeting between change of shift.
Night/Shift Work	Requirement to work during the time when a person would normally be asleep, that is, they require a change to the normal sleeping pattern. Typically, work outside daylight hours.
Personnel / Persons	Employees, contractors, visitors.
Prior Sleep / Wake Model	Is a means for determining individual fatigue risk levels based on the amount of sleep obtained in the prior 24 and 48 hour period.
Rest Period	A period allocated for recovery and/or restorative sleep.
Risk Assessment	A documented process of identifying hazards, assessing the risks and determining the control measures.
Roster	A programmed sequence of attendance.
Rostered Hours	Attendance at work according to an agreed schedule.
Shift Work	A pattern of work rosters including day and/or night periods.

3.0 Definitions (cont'd)

Term	Definition
Sleep Debt	Occurs when an individual does not achieve adequate restorative sleep. It can accumulate over a period of days of inadequate sleep or a night without sleep. Sleep debt may result in impaired performance, reduced alertness and higher levels of sleepiness and fatigue. A sleep debt can only be repaired with recovery sleep.
Sleep Inertia	Impairment of alertness and performance immediately upon waking e.g. may last for a period of up to 30 minutes.
Scheduling	The allocation of tasks and resources.
Stakeholders	Includes employers, employees, employee representatives, industrial organisations.
Suitable Place for Sleep	A facility where a person can obtain good quality restorative sleep.
Transparent and Auditable	Information must be readily available and accessible to all personnel within 7 days of occurrence e.g. distributed to the working party, intranet, etc.
Unplanned Contingency	An event that has the ability to imminently cause a) safety risks, b) environmental impacts, c) loss of generation.
Visitor	A person seeking access to a TE workplace without entering into an employment relationship or contract with TE. For example, attending a TE workplace as an invited guest of an employee or contractor.
Working Time	The period of time spent conducting company business.

4.0 Obligations

All personnel shall comply with this fatigue management procedure.

TE have an obligation to ensure that this procedure is in place to promote, support, monitor and review the workplace practices and outcomes.

All personnel have an obligation to ensure they turn up to work in a state that enables them to conduct their business activities in a safe manner.

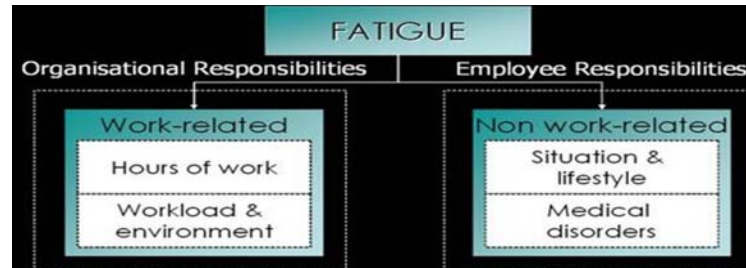
TE have an obligation to ensure that as far as reasonably practical that those workers unfit to drive due to the effects of fatigue are transported to their home or alternative suitable place for sleep.

Where a fatigue risk is identified the situation must be managed to remove or minimise the risk.

5.0 Shared Responsibility Model and Diagram

The management of fatigue is considered a shared responsibility between an organisation and its personnel, refer to Figure 1. TE is responsible for providing a safe system of work, which includes the development, implementation and management of working time schedules, and the establishment of a safe work environment and work practices. Personnel are responsible for ensuring that they are fit for work by taking into account their lifestyle and medical factors that could influence fatigue, and managing them appropriately.

Figure 1



6.0 Responsibilities

Everyone at a TE workplace has a responsibility to ensure that fatigue does not affect their own, or others' health and safety in the workplace.

6.1 Tarong Energy will:

- Educate its employees about the impacts of fatigue;
- Offer rehabilitation and assistance to any employee taking into account the individual's right to privacy and confidentiality;
- Provide leadership and commitment through the allocation of resources and personnel for the establishment, implementation, evaluation and review of a fatigue management program;
- Review, monitor and track all aspects of the fatigue management program to ensure compliance across whole of site and workforce;
- Ensure that the fatigue assessment process is utilised and documented;
- Provide appropriate fatigue management training;
- Develop and implement agreed working rosters to ensure adequate opportunity for restorative sleep is provided;
- Provide support processes, policies and services for personnel;
- Ensure that if a person's capacity to work safely is reduced by fatigue they can notify their supervisor without fear of adverse repercussions;
- Ensure that privacy and confidentiality is maintained;
- Provide suitable accommodation for employees when required to travel for work;
- Provide an Employee Assistance Program (EAP) that places emphasis on the recognition and management of fatigue; and
- Report quarterly to employees on the number and location of evaluations carried out.

6.2 Employees, Contractors and Visitors

Employees, contractors and visitors (all personnel) must:

- Make every reasonable effort to be fit for work whilst:
 - At work;
 - On call;
 - Driving a company vehicle; or
 - Operating company plant or equipment.
- Notify their supervisor (host if visitor) if:
 - Their work performance is likely to be affected by fatigue; or
 - There is any risk to themselves or others due to the effects of fatigue;

6.2 Employees, Contractors and Visitors (cont'd)

- Notify their supervisor or other responsible person immediately (if a person will not self manage their potential impairment) where there a potential risk to health and safety if they suspect others in the workplace are behaving in a manner that suggests fatigue related impairment exists (refer to signs and symptoms in Appendix 1);
- Encourage other personnel to comply with this procedure;
- Participate in fatigue assessments, if requested;
- Report any actual or potential fatigue risks; and
- Fulfil their obligation that is, to arrive at work in a fit state.

All personnel are encouraged to use time away from work to obtain sufficient restorative sleep to ensure fatigue related risks are managed to an acceptable level.

6.3 Site Managers / Relevant General Manager

Site Managers / Relevant General Managers are responsible for:

- Implementing this procedure at the workplace;
- Investigating apparent breaches of the provisions of this procedure;
- Taking appropriate actions where breaches of the procedure have occurred;
- Ensuring that privacy and confidentiality is maintained;
- Ensuring that during recruitment processes, prospective Employees are advised that a fatigue procedure is in place;
- Ensuring that the employee and workplace induction processes includes education on the standards, obligations and responsibilities of this procedure;
- Assisting supervisors and managers in applying this procedure. This includes facilitating access to counselling, rehabilitation and other assistance services when required;
- Monitoring the application of this procedure;
- Providing advice to management, particularly on the privacy and confidentiality rights of employees; and
- Ensuring that privacy and confidentiality is maintained.

6.4 Workplace Health & Safety Officers and Rehabilitation & Return to Work Coordinators

Workplace Health & Safety Officers and Rehabilitation & Return to Work Coordinators are responsible for:

- Ensuring that information and education regarding this procedure are provided in employee and workplace inductions;
- Offering to arrange support, counselling and medical advice for employees;
- Providing advice on establishing suitable alternate duties (where possible); and
- Maintaining privacy and confidentiality.

6.5 Supervisors

Supervisors are responsible for:

- Assisting in the implementation of this procedure;
- Consulting with appropriate personnel, arranging suitable alternate duties (where possible) and/or a safe location for individuals impaired by fatigue;
- Ensuring that fatigue is considered in the investigation of any incident;
- Maintaining privacy and confidentiality, including acting on reports of concern about privacy and confidentiality;
- Facilitating other actions as defined under this procedure; and
- Recognising and assessing the signs, symptoms and management of fatigue (refer to Appendix 1).

6.6 Contracting Company's Responsibilities

Contractors' fatigue risk management systems shall as a minimum comply with this procedure.

- Contractor companies are individually responsible to ensure that suitable place for sleep accommodation is available for their employees;
- Contracting companies shall provide to TE, upon request, working time records and travel history for the 7 day period leading up to the on-site commencement date with TE. Documentation regarding all workers is to be kept on record prior to the commencement of any contract;
- Contractors shall ensure that any workers that have worked 6 or more consecutive day shift/work in the previous 7 days are to have a 24 hour break prior to commencement of work on-site to allow opportunity for adequate restorative sleep;
- Contractors shall ensure that any workers that have worked 4 or more consecutive night shift/work in the previous 7 days are to have a 48 hour break prior to the commencement of a day shift/work on-site to allow opportunity for adequate restorative sleep;
- Any breach of this procedure will be considered a serious safety incident that will be investigated. A contractor found to be in breach of the requirements of this procedure may result in the imposition of penalties under the contract. In extreme circumstances they may be asked to show cause why they should not have their contract terminated and access to TE site(s) terminated; and
- All travel time when in control of a vehicle prior to the commencement of and after the completion of work shall be incorporated into the assessment of fatigue levels.

7.0 Counselling and Support

7.1 Employee Assistance Program (EAP)

TE provides a confidential Employee Assistance Program (EAP) through an external service provider. This program is available to all employees and their families free of charge. Contact details of the EAP are posted around each TE workplace. TE can provide information regarding the service and will arrange an appointment on request. An employee may directly contact TE's EAP provider if they so choose.

7.2 Employee Treatment/Support

TE recognise that some employees may require treatment and/or support for fatigue related issues. If an employee believes he or she requires assistance, or where TE considers an individual may require assistance, that employee will be encouraged to obtain treatment/support through:

- EAP counsellors;
- Community Health Services;
- Support groups or other specialist services;
- Rehabilitation & Return to Work Coordinators;
- A Medical Practitioner;
- An Occupational Health Nurse or Health and Safety Advisor.

TE will, in all cases, offer an appropriate, fully funded treatment and / or support program in accordance with their procedure for Workplace Rehabilitation and WorkCover Claims. Refer to [Program for Workplace Rehabilitation OHS-PROC-500](#)

Any employee who participates in a treatment and or support program to manage a fatigue related issue will be granted leave (which may include special leave) in accordance with TE's workplace industrial instruments.

8.0 Privacy and Confidentiality

The use of information gained as a result of a fatigue risk assessment will be strictly limited to purposes consistent with this procedure.

TE will ensure, that employee, contractor and visitor information is kept confidential and secure. All documentation and requests for disclosure will be handled according to relevant legislation. Information will only be used for the purpose of determining fitness for work, assignment of appropriate duties or treatment/support purposes.

TE will only release information to a third party as required by law, and with the written permission of the Manager Operations after the individual concerned has been advised. The individual concerned will be advised, and this advice will be documented. Records of fatigue assessments are not to be passed on by the company to any future employer (except in the case of a transmission of business where the employees transfer their employment to the new owner).

Records of fatigue assessment results of contractors will be kept secure and not passed on to any person other than their employer's nominated representative.

TE will take all reasonable steps to respect the privacy and confidentiality of individuals participating in fatigue management. The behaviour and actions of all parties involved will be under close scrutiny with regards to maintaining the privacy and confidentiality of individuals being assessed. Concerns about privacy and confidentiality should be reported to their supervisor, Health and Safety Representative or Union Delegate. Breaches of confidentiality are considered a serious matter and will be treated in accordance with the organisation's performance management process.

Where relevant to an accident or incident investigation, the records will only be referenced in the investigation, and flagged with the appropriate cross-referencing. These records will be kept in accordance with the regulatory requirements.

9.0 Identification

Identification of persons who may be affected by fatigue can occur as a result of:

- Voluntary disclosure by the person affected;
- Direct observation of the affected person's behaviour, consistent with Appendix 1;
- A workplace incident investigation;
- Monitoring compliance with this procedure;
- Completing a fatigue risk assessment; and
- Conducting the relevant site risk assessment process.

10.0 Education and Training

TE will provide all employees with an education program on fatigue risk management and their responsibilities under this procedure.

This education will give employees the knowledge and ability to manage their own fitness for work.

The education program will be on-going and flexible. It will respond to fatigue related trends identified through procedure reviews and audits.

All staff will participate in training to recognise symptoms and behaviours associated with the affects of fatigue including support mechanisms and the application of this procedure. Supervisors, planners and health and safety personnel, including on-site industrial representatives will participate in more detailed training.

10.0 Education and Training (cont'd)

As noted in this procedure, an Employee Assistance Program is available to provide employees and their families with assistance and/or support. EAP consultants will provide further education and information as required.

11.0 Assessing Fatigue Impairment

It is a condition of entry to TE workplaces that all employees, contractors, and visitors can be assessed at any time for fatigue.

Any formal assessment will be conducted by a suitably trained person who is authorised by TE.

Any person who is requested to undergo a fatigue assessment and refuses such a request will not be allowed entry to, or to remain in, the workplace.

11.1 Assessment Methods, Tools and Criteria

A range of fatigue assessment methods may include but not restricted to:

- Sleep opportunity;
- Signs and symptoms of fatigue table – Appendix 1;
- Prior sleep wake model (sleep duration) – Appendix 2;
- Hazard control model – risk assessment see Section 21;
- Sleepiness scales;
- Hours of wakefulness;
- Incident reporting; and
- Self reporting.

11.2 Random Assessment

The Health and Safety Committee of each workplace will set assessment frequency of all personnel.

Note: *Random assessments may also be initiated where there is a concern of a high level of risk due to, for example:*

- *Large numbers of contractors on-site for a forced outage or other repair work;*
- *Construction projects occurring on-site*

Random assessments may be scheduled to coincide with community social events where it is likely persons may be fatigued.

11.3 Overhaul Assessment

Random assessments may occur during the progress of an overhaul.

11.4 Assessment for With Cause Incidents

If an incident occurs in the workplace that a supervisor or Health and Safety Advisor believes caused or could have caused serious injury to people and/or serious damage to plant and equipment (with cause), the individual(s) involved will be assessed for fatigue as soon as practicable by a suitably trained and authorised person.

This assessment will form part of the incident investigation process.

11.5 Assessment as a Result of Reasonable Suspicion

If a supervisor has a reasonable suspicion that a person at work is impaired by fatigue, they should initiate an assessment by a suitably trained and authorised person. If other employees, contractors or visitors suspect an individual at work is affected by fatigue, they should advise a supervisor, TE representative (e.g. Contract Administrator) or Health and Safety Advisor. Appendix 1 lists typical symptoms that may be displayed by a person impaired by fatigue.

In the event that it is not possible or practical for the individual in question to undertake assessment, a supervisor will direct them not to perform any further work. The individual will remain in an area where he or she presents no safety risk to themselves or others until they can be assessed. Alternatively, TE will make arrangements for their safe transport home, including relocation of vehicle and/or return to site later.

11.6 Self-assessment

A self-assessment tool will be available for all personnel to use.

An employee who identifies they are impaired by fatigue (to the extent that it has the potential to create a health and safety risk) as the result of a voluntary self assessment must contact their supervisor. A formal risk assessment will be conducted to identify appropriate controls.

An employee who is unfit for work as a result of fatigue impairment due to personal circumstances shall apply for appropriate leave. Leave will be in accordance with the relevant procedure or site industrial agreement.

An employee's voluntary self-assessment that results in non-attendance will not be recorded.

11.7 Assessment Results

An employee who is impaired by fatigue due to work related reasons will be required to undertake a formal risk assessment to identify appropriate controls.

When assessing personnel for fatigue the sample evaluation tools shall be used as a minimum standard and are contained in Appendix 3. Section 1 of Appendix 3 should be used for call outs and Section 2 should be used for all other instances.

When a person has been identified as having fatigue risk, control measures shall be put in place to ensure fatigue is managed to allow them to return to the task or appropriate tasks at a later time.

If a person is removed from duties or given alternate duties as a result of a fatigue assessment the person will not be disadvantaged.

Fatigue assessment records are to be held in accordance with Section 8.

12.0 Accommodation

TE are responsible to ensure that suitable accommodation is available for their employees when required to travel for work purposes to enable them to fulfil their obligation that is, to arrive at work in a fit state.

For other personnel refer to Section 6.6 Contracting Company Responsibilities.

13.0 Fatigue Impact from Roster Alteration

New rosters or alterations to existing rosters will be subject to an assessment through a recognised fatigue analysis tool and in accordance with existing industrial instruments.

In the event that rosters are to be altered, a consultative and informative process must be utilised to ensure that all stakeholders have representation and have been informed of the reasons.

14.0 Rules for Managing Fatigue

Planning/Pre-Agreed Roster

Situations	Basis	Value
Limit number of actual work hours in any 7 day period.	6 attendances consisting of a maximum of 12 hours each.	72 hours.
Handover for continuous shifts for personnel in roles such as: operators, supervisor, PTW Officer, OIC, inspector etc.	In addition to 12 hour shift, maximum 30 minutes per shift.	3 hours (6 attendances x 30 mins).
Planned maximum hours of work (not inclusive of handovers).	12 hours.	12 hours.
Long break frequency.	Minimum 24 hours with no financial disadvantage.	1 Break in every 7 Days.
If personnel are required to work continuously for 4 or more nights the person will have a rest period after change from night work/shift before returning to normal roster.	4 or more night shifts consecutively.	48 hours (to support 2 night sleeps) *See Note 1.
Rest period after change from night work/shift before changing to a different roster – where night work/shift has been worked continuously for 3 or more weeks.	Minimum 48 hours *See Note 1.	48 hours (to support 2 night sleeps) *See Note 1.

Notes

*1 – The 48 hour rest period may occur at anytime during a rostered period. Breaks which fall on normal projected roster working shifts will be paid as if at work.

Contingency/Call Outs

Situations	Basis	Value
Limit number of actual work hours in any 7 day period.	Inclusive of call outs.	Normal roster plus 24 hours after which a 24 hour break must be taken without financial disadvantage.
Maximum continuous hours worked in a 24 hour period inclusive of time worked as a result of unplanned contingency.	16 hours.	16 hours.
Unplanned contingency – after a work period of greater than 12 hours further work periods of greater than 12 hours cannot be worked unless there has been a 24 hour break.	16 hours.	Up to 16 hours.
Minimum short break duration (Hours) following a call out or contingency.	10 hours.	10 hours.
Call outs - Maximum hours worked in a 24 hour period, starting from commencement of the previous attendance.	16 hours.	16 hours.

15.0 Travel

Where work duration reaches 14 hours, the employee is to be provided with transport for the return journey to their home or a suitable place for sleep. The person driving the vehicle is to be fit to safely undertake the journey.

Personnel shall avoid driving more than 12 hours in a 24 hour day.

Personnel driving vehicles to and from work should:

- Avoid driving after being awake for a continuous period of 17 hours;
- Avoid driving if they have not accumulated more than 5 hours sleep in the previous 24 hours or 12 hours sleep in the previous 48 hours;
- Ensure adequate sleep the night before a long journey;
- Share driving where possible;
- Take a rest break from driving of at least 10 minutes every 2 hours or more frequently if feeling tired; and
- Arrange alternative transport, accommodation so as not to exceed the requirements of Section 5.

In the case of work purposes and when driving company provided vehicles, all of the above requirements shall apply.

All travel time when in control of a vehicle prior to the commencement of and after the completion of work shall be incorporated into the calculation of fatigue levels.

16.0 Call-Outs

For a call out the following conditions will apply:

- A formal fatigue assessment which includes prior sleep/wake data, shall be conducted where the person is required to work between the hours of 7:00pm to 7:00am. A review of the fatigue assessment will be done if the work is to continue over 4 hours.
- At any time, where requested by the person, that person will be transported to or from work;
- A person may choose to drive provided they take into account the following fatigue issues:
 - Sleep inertia (which may require them to allow 30 minutes after being woken prior to driving);
 - Maximum hours of work in the prior 24 hours as defined in Section 14; and
 - Other relevant factors which may impact on their ability to drive.

Conditions relating to travel shall comply with Section 15.

There is a shared responsibility between the person requesting the call out and that person being called out to consider the effects of fatigue and comply with the requirements of this procedure.

17.0 Telephone Call Disturbances

When sleep is disturbed by work related telephone calls, the loss of sleep should be considered in the worker's assessment of fatigue risk level. This may result in the worker being unavailable for duties until sufficient restorative sleep has been achieved.

18.0 Breaks Within Shifts

Duration of breaks within shifts is covered in existing industrial instruments.

Employees, subject to existing industrial instruments may self-select the timing of work breaks within their shift to assist in managing fatigue.

Changing work tasks is not considered a break.

19.0 Scheduling

Planning of work tasks shall comply with this fatigue management procedure.

In all scheduling the following matters shall be considered, but are not limited to:

- Time of day;
- Nature of work and the level of risk inherent in the work;
- Number of people;
- Circadian rhythm;
- Sleep inertia;
- Sleep debt;
- Start and finish times;
- Duration of work;
- Frequency of breaks;
- Opportunity to recover from fatigue;
- Redesign work practices or rescheduling high risk/complex tasks; and
- The need to conduct a formal risk assessment.

Any scheduling involved with unplanned contingency must be managed to ensure compliance with this procedure.

20.0 Emergency and Crisis Response

In the event of a crisis, extra ordinary hours may be worked and must be signed off by the CEO after the completion of an appropriate risk assessment. The working of extra ordinary hours will be limited to essential personnel and must be accompanied by a risk assessment which is transparent and auditable. Prior to working extra ordinary hours, personnel must agree to be transported home or to a suitable place for restorative sleep.

In the case of an emergency or crisis arising (e.g. rescue of personnel, fire, chemical spill, personal injury, etc.) it is important to consider the time emergency personnel are on task as well as the task itself, particularly, if it is expected to be a protracted event requiring employees to be on duty for extended periods.

Provide for regular rotation of emergency personnel to ensure adequate rest and recovery (to assist in avoiding heat stress and fatigue, and compounding effects).

After emergency responses, rest breaks shall be provided to ensure adequate restorative sleep.

21.0 Risk Assessment

A recognised risk methodology (for example AS4360 or PAS55) shall be utilised to assist in the evaluation and management of fatigue risks.

TE shall provide a short term fatigue assessment tool (e.g. assessment cards – Appendix 2) together with a longer term assessment tool (e.g. FAID – Appendix 3) for assessing roster/shift patterns.

21.0 Risk Assessment (cont'd)

Risk assessments will provide a graded/graduated process for the determination of fatigue cut off levels – low, moderate, high risk categories and subsequent actions (such as breaks, rotation, refreshments etc.).

22.0 Monitoring Future Research

Resources that include personnel, time, conference attendance, purchase and acquisition of current fatigue/sleep/human factor publications are to be allocated for the annual review of fatigue/sleep related materials. Any significant findings are to be brought to the attention of the Occupational Health and Safety Committee/Fitness for Work Working Party/Senior Management Group within the Qld Power Generator's forum for general distribution and consideration.

23.0 Audit and Review Process

23.1 Review of Procedure

The review of this procedure is to take place within at least 12 months of initial implementation (by no later than July 2009) to determine effectiveness, functionality, compliance to the requirements within and other internally related documents/materials/practices using an auditing approach.

The audit will incorporate:

- (1) A formal auditing tool;
- (2) Interviews with Personnel;
- (3) A desktop audit of documentation and practices;
- (4) Examination of internal systems (databases, safety records, investigations etc.); and
- (5) Review of the work schedules and overtime utilisation.

Following the initial review, each subsequent review will be undertaken no less frequently than once every **2 years**.

All work attendances exceeding 12 hours shall be monitored and recorded.

Special attention is to be made to the incident/accident reporting system and the fatigue related questions within investigations and any subsequent actions/control measures/countermeasure introduced and the final outcome on personnel, practice and business parameters.

Findings are to be documented and made available to all TE personnel.

Any changes to this procedure will require the Fitness for Work Working Party to reconvene and discuss before alterations are made. Version control is to be applied.

23.2 Audit and Review of Actual Performance

Managers together with safety department personnel are to ensure that fatigue risk control measures, incident reporting and response procedures are in place, followed and audited on a regular basis.

23.3 Review of Incidents

TE shall ensure that fatigue related issues are considered in the investigation and reporting of incidents.

23.4 Revision History

Rev. No.	Rev. Date	Revision Description	Written by	Approved by
0	19.06.2009	New Procedure	Michael Joy	Andrew Krotewicz

24.0 Related Documents

- *Workplace Health and Safety Act 1995*
- *Workplace Health and Safety Regulations 2008*
- *Privacy Act 1988 (Cth)*
- Australian Standard 4360:2004 "Risk Management"
- Australian Standard 4801:2001 "Occupational Health and Safety Management Systems – Specification with guidance for use"
- Australian Standard 4804:2001 "Occupational Health and Safety Management Systems – General Common Policy on principles, systems and supporting techniques"
- International Standard PAS55 "Risk Management"
- Queensland GOC Generators internal documentation
- For more information please refer to Minerals Council of Australia Work Design, Fatigue and Sleep Report and booklet dated 23 March 2006, available at http://www.minerals.org.au/safety/s_and_h_publications

Related Policies and Procedures include:

Corporate Values and Code Of Ethics (Appendix 1 of GOV-POL-01 Corporate Governance Policy)

Employee Assistance Programme - CORP-POL-42

Fair Treatment Policy PEO-POL-02

Fair Treatment Procedure PEO-PROC-11

Health and Safety Policy - OHS-POL-01

Managing Performance CORP-POL-54

Managing Performance Procedure - CORP-HRM-E3

Program for Workplace Rehabilitation OHS-PROC-500

Records Management Policy GOV-POL-06

Special Conditions of Contract - Site Work Conditions at TPS & WPS.doc

Security Classification of Records GOV-PROC-06 (under review)

Tarong Energy HSE Booklet

Workplace Rehabilitation Policy OHS-POL-02

Tarong Energy Enterprise Bargaining Agreement, Certified Agreement 2006

Appendix 1 - Signs of Symptoms of Fatigue

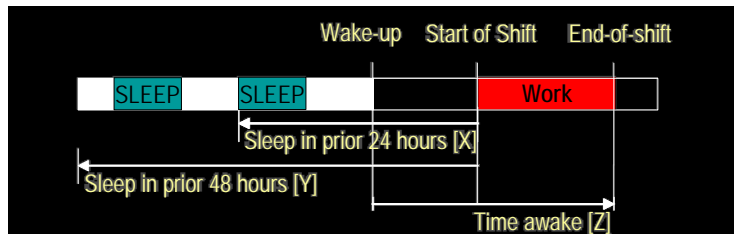
Physical	Mental	Emotional
Yawning	Difficulty concentrating on a task	More quiet than usual
Heavy Eyelids	Lapses in attention	Lacking energy
Eye-rubbing	Difficulty remembering what you are doing	Mood changes, decrease tolerance
Head drooping	Failure to communicate important information	Emotional outburst, aggressive, rage
Micro sleeps	Failure to anticipate events or actions	
	Accidentally doing the wrong thing (error)	
	Accidentally not doing the right thing (omission)	

Appendix 2 - Prior Sleep Wake Model

This is a means for determining individual fatigue risk levels based on the amount of sleep obtained in the prior 24 and 48 hour period.

The basis of the model is minimum sleep of:

- 5 hours in the previous 24 hour period and
- 12 hours in the previous 48 hour period.



X - Sleep in prior 24 hours
 Y - Sleep in prior 48 hours
 Z - Time awake

As prior sleep decreases and prior wake increases the likelihood of fatigue also increases.
 In general; X should be greater than threshold [5]
 Y should be greater than threshold [12]
 Z should be less than Y

For example, using a point system may assist in determining what course of action an individual and/or organisation may take. A simple point system could be something like the following:

Step One: Sleep in prior 24 hours [X]					
Sleep	2	3	4	5+	
Points	12	8	4	0	
Step 2: Sleep in prior 48 hours [Y]					
Sleep	8	9	10	11	12+
Points	8	6	4	2	0
Step 3: Hours awake since last sleep [Z]					
Add 1 point per hour greater than the sleep in Step 2					

Example – Low Fatigue

If I have slept 6 hours in the prior 24 hours, and 10 hours in the prior 48 hours and have been awake for 2 hours I have

X=6 (sleep in prior 24 hours); Y=10 (sleep in prior 48 hours) and Z=2 (hours awake)

Points System

Step 1 + Step 2 + Step 3 = Fatigue Risk Score

0 + 4 + 0 = 4

Risk control measures for a score of 4 may include:

Self monitoring, task rotation and team monitoring of colleague but this range will be determined by internal organisational decisions regarding responses designed to reduce the identified fatigue risk.

Appendix 2 - Prior Sleep Wake Model (cont'd)

Example – Higher Fatigue

If I have slept 3 hours in the last 24 hours, and 6 hours in the prior 48 hours and have been awake for 10 hours I have

X=3 (sleep in prior 24 hours); Y=6 (sleep in prior 48 hours) and Z=10 (hours awake)

Points System

Step 1 + Step 2 + Step 3 = Fatigue Risk Score

8 + 8 + 4 = **20**

Risk control measures for a score of **20** may include:

Document externally, do not engage in any hazardous activities, do not commence work.

An example of Fatigue control measures, based on accumulated scores.

Score	Agreed Response
0	Do nothing unless higher level hazards are present
1-4	Document locally with supervisor and undertake approved individual countermeasures. Self monitoring for symptoms, napping, team monitoring by colleagues, task rotation
5-10	Document externally by supervisor. Organize supervisory checks. Complete symptom checklist, task re-assignment
10+	Document externally, do not engage in any risky behaviors. Do not commence shift until fit for work

Appendix 3 - Fatigue Assessment Tool

SECTION 1

- Are you on a compulsory break? Yes - No
- Will this work carry you over 72 hours? Yes - No
- Have you had a 24 hour break since you last worked greater than 12 hours? Yes - No
- Have you had a 10 hour break since your last call out ended? Yes - No
- Do you think you are fit for duty? Yes - No
- Based on the sleep wake model card below what level of control is necessary?

FRONT	BACK																														
<p>Individual Fatigue Likelihood Assessment</p> <p>Step 1. Sleep in prior 24 hours</p> <table border="1"> <tr> <td>Sleep</td> <td>≤ 2h</td> <td>3h</td> <td>4h</td> <td>5+h</td> </tr> <tr> <td>Points</td> <td>12</td> <td>8</td> <td>4</td> <td>0</td> </tr> </table> <p>Step 2. Sleep in prior 48 hours</p> <table border="1"> <tr> <td>Sleep</td> <td>≤ 8h</td> <td>9h</td> <td>10h</td> <td>11h</td> <td>12+h</td> </tr> <tr> <td>Points</td> <td>8</td> <td>6</td> <td>4</td> <td>2</td> <td>0</td> </tr> </table> <p>Step 3. Hours of wake since last sleep Add one point per hour awake greater than sleep in step 2.</p>	Sleep	≤ 2h	3h	4h	5+h	Points	12	8	4	0	Sleep	≤ 8h	9h	10h	11h	12+h	Points	8	6	4	2	0	<p>Individual Fatigue Likelihood Assessment</p> <p>Step 4. Add all points together to determine your score</p> <table border="1"> <thead> <tr> <th>Score</th> <th>Control Level</th> </tr> </thead> <tbody> <tr> <td>1-4</td> <td>Self-monitoring</td> </tr> <tr> <td>5-8</td> <td>Supervisor monitoring</td> </tr> <tr> <td>9+</td> <td>Don't commence shift until fit for work</td> </tr> </tbody> </table>	Score	Control Level	1-4	Self-monitoring	5-8	Supervisor monitoring	9+	Don't commence shift until fit for work
Sleep	≤ 2h	3h	4h	5+h																											
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- Do you require transport? Yes - No

SECTION 2 (Yes or No or Tick or Cross)

Physical	Answer	Mental	Answer	Emotional	Answer
Yawning		Difficulty concentrating on a task		More quiet than usual	
Heavy Eyelids		Lapses in attention		Lacking energy	
Eye-rubbing		Difficulty remembering what you are doing		Mood changes, decrease tolerance	
Head drooping		Failure to communicate important information		Emotional outburst, aggressive, rage	
Micro sleeps		Failure to anticipate events or actions			
		Accidentally doing the wrong thing (error)			
		Accidentally not doing the right thing (omission)			

Add up the number of Yes/Ticks to the above (section 1&2) to provide a score. Apply the below table.

Score	Control Measures
1-4	Low Self management of fitness to perform tasks.
5-8	Moderate Report to supervisor and discuss fitness to perform tasks with risk ranking of moderate or greater without controls in place.
9+	High Report to supervisor. Do not perform tasks with risk ranking of moderate or greater without controls in place (including driving home) until fit to do so.