

CS ENERGY PROCEDURE FOR FATIGUE MANAGEMENT CS-OHS-12

Responsible Officer: GM Organisational Development

Approved: Chief Executive

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Issue Date	Nature of Changes
11/05/06	Original draft Issue for comment
01/08/06	Additional changes – remove references to overhauls
06/10/07	Changes to the Prior Sleep Wake hours and out of hours response rest periods to match table in section 5.3.2
28/10/08	Amended to be consistent with Common Policy and Procedure for the Management of Fitness For Work within GOC Generators for Workshop review.
26/11/08	Amended following review from Workshop held 25-26 November 2008
20/01/09	Issued for use following review period

1. Preamble

This procedure complies with the common policy for the Management of Fatigue developed collaboratively by Employee and Management representatives of Tarong Energy, Stanwell Corporation, and CS Energy with State Union Officials of AMWU, APESMA, ASU, QSU, ETU, and CFMEU (M&E).

The focus of this document is health and safety of workers and others relating to fatigue.

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.

This procedure 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. Scope

This procedure applies to all CS Energy Employees, Contractors and Visitors whilst at the workplace or carrying out activities on behalf of (or when representing) CS Energy.

3. Purpose and Objective

CS Energy has an obligation to minimise risk due to fatigue on Employees, Contractors, Visitors and the public whilst at the workplace or whilst carrying out activities on behalf of (or when representing) CS Energy. This is underpinned by the organisation's 'Fit for Duty' policy and 'Fatigue' policy.

Where the effects of fatigue and/or the nature of the work being performed induces fatigue causing impairment to a person's health and safety, CS Energy will ensure that appropriate and reasonable management action, consistent with this procedure, is taken.

The objective of this procedure is to provide appropriate knowledge, skills and tools for the safe management of fatigue to:

- maintain a safe and healthy work environment;
- minimise the risk to Employees, Contractors, Visitors and the public;
- act as a minimum standard;
- encourage persons affected by work and non-work related fatigue to seek assistance;
- enable the appropriate people to perform their role and responsibilities whilst maintaining the privacy and confidentiality of people participating in fatigue management; and
- educate and provide a greater understanding of the effects of fatigue to Employees, Contractors and Visitors.

4. 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.

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 12.
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.
Contractor	A person who carries out work under a contract for services with CS Energy, either as an individual or as an Employee of a company other than CS Energy or its related bodies corporate as defined in the <i>Corporations Act 2001 (Cth)</i> .
Crisis	A time of severe difficulty or danger.
Emergency:	A serious unexpected and potentially dangerous situation requiring immediate action.
Employee:	A person having a valid contract of employment with CS Energy and/or is in receipt of salary or wages from CS Energy or its related bodies corporate as defined in the <i>Corporations Act 2001 (Cth)</i> .
Employee Assistance Program:	The EAP is provided by trained professionals operating externally to CS Energy. 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.
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.
Fit for Duty:	Means that a person is in a state (physical, mental and emotional) which enables them to perform assigned tasks

competently and in a manner which does not threaten or compromise the safety or health of themselves or others.

Handover:	A meeting between change of shift.
Health & Safety Specialist:	An employee of CS Energy who is engaged in a Health and Safety role as a Manager, Coordinator or Advisor.
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 a person's fatigue risk levels based on the amount of sleep obtained in the prior 24 and 48 hour period.
Random:	A selection process where each variable in the sample has the same probability of being selected.
Reasonable Suspicion:	Is an opinion that is formed as a result of an observation that is conducted by a suitable trained person with reference to Appendix 1 .
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.
Safety Critical Work:	Work or activities that are critical to the safe planning and/or performance of tasks, involve the safety of people or others at the workplace and the safe operation of plant or the safe use of equipment.
Shift Work:	A pattern of work rosters including day and/or night periods.
Sleep Debt:	Occurs when a person 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.
Suitable Trained Person:	A person who is authorised by CS Energy to perform fatigue assessments following successful completion of training and education by a trainer in the relevant field approved by CS Energy.

- Transparent & 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 and (c) loss of generation.
- Visitor:** A person seeking access to a CS Energy workplace without entering into an employment relationship or contract with CS Energy, e.g. attending a CS Energy workplace as an invited guest of an Employee or Contractor.
- Working Time:** The period of time spent conducting company business.

5. Obligations

All Personnel shall comply with this common policy for fatigue management.

All Employers have an obligation to ensure that this policy 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.

All Employers 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.

6. Responsibility

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

6.1 Shared Responsibility

The management of fatigue is considered a shared responsibility between an organisation and its Personnel as illustrated in Figure 1. CS Energy is responsible for providing a safe system of work which includes the development, implementation and management of working time schedules, work schedules and the establishment of a safe work environment and work practices.

Personnel are responsible for ensuring they are fit for duty by taking into account their lifestyle and medical factors that could influence fatigue, and managing these appropriately.

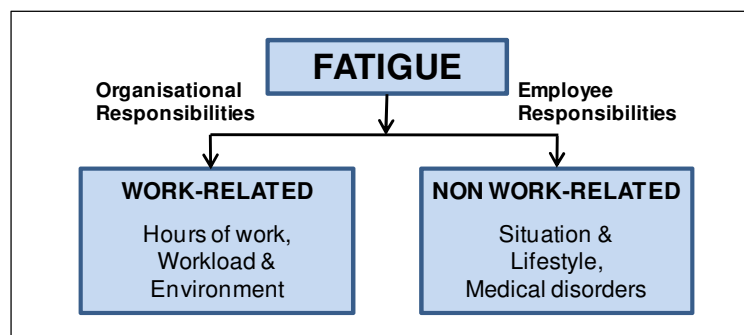


Fig. 1 Shared responsibility model

6.2 CS Energy

CS Energy will:

- educate its Employees about the impacts of fatigue;
- offer rehabilitation and assistance to any Employee taking into account the person'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 the fatigue management program;
- review, monitor and track all aspects of the fatigue management program to ensure compliance across whole of site and Personnel as well as identifying areas for improvement;
- 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.

6.3 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;
- ensuring that investigations of incidents assess the effects of fatigue;
- 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 and regularly assessing the suitability and adequacy of this procedure and identifying any aspects that can be improved and report accordingly about those matters;
- providing advice to management, particularly on the privacy and confidentiality rights of Employees; and
- ensuring that privacy and confidentiality is maintained.

6.4 Superintendents and Supervisors

Superintendents and Supervisors are responsible for:

- assisting in and implementing this procedure to minimise the causes of work related fatigue;
- ensuring that, to the extent possible, fatigue is considered in planning working rosters, work allocation and scheduling, taking into account the range of matters set out in **Appendix 2**;
- identifying and advising the relevant Site/General Manager about issues with the practical application and operation of this procedure and any areas for improvement;
- consulting with appropriate Personnel, arranging suitable alternate duties (where possible) and/or a safe location for a person 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**).

6.5 Health & Safety Specialist & Rehabilitation & RTW Coordinator

Health & Safety Specialists and Rehabilitation and Return to Work (RTW) 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 records and reporting fatigue matters and statistical data.
- maintaining privacy and confidentiality.

6.6 Employees, Contractors and Visitors

Employees, Contractors and Visitors (all Personnel) must:

- Not wilfully place their own or others health and safety at risk;
- 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;
- 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 to arrive at work fit for duty.

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.

6.7 CS Energy Contract/Overhaul Administrators

Contract/Overhaul administrators are responsible for:

- ensuring that information on this procedure is provided with the contract documentation; and
- advising Contractors of their role in complying with CS Energy's fatigue management procedure.

6.8 Contracting Company

The 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;
- Contractor companies shall provide to CS Energy, upon request, working time records and travel history for the 7 day period leading up to the on-site commencement date for the site. 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 and/or access to CS Energy 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. Counselling and Support

7.1 Employee Assistance Program (EAP)

CS Energy provides a confidential 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 workplace. CS Energy can provide information regarding the service and will arrange an appointment on request. An Employee may directly contact the external service provider if they so choose.

7.2 Employee Treatment and Support

CS Energy 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 CS Energy management consider a person may require assistance, that Employee will be encouraged to obtain treatment and/or support through:

- EAP Counsellors;
- Community Health Services;
- Support groups or other specialist services;
- Rehabilitation and RTW Coordinators;
- Medical Practitioners;
- An Occupational Health Nurse or Health and Safety Adviser.

CS Energy will, in all cases, offer an appropriate, fully funded treatment and/or support program in accordance with the organisation's procedure for Workplace Rehabilitation and WorkCover Claims, Document No. CS-OHS-4.

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 the relevant workplace industrial instruments (e.g. EBA).

8. Privacy and Confidentiality

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

CS Energy 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 duty, assignment of appropriate duties, treatment and/or support purposes.

CS Energy will only release information to a third party as required by law, and with the written permission of the Site Manager after the person concerned has been advised. The person concerned will be advised and this advice shall 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.

CS Energy will take all reasonable steps to respect the privacy and confidentiality of person's 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 persons 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 performance management process outlined in the procedure, Counselling, Discipline and Dismissal, Document No. CS-HR 23.

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

9. Education and Training

CS Energy will provide all Employees with an education program on fatigue management including 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 policy and procedure reviews and audits.

All Employees will participate in training to recognise symptoms and behaviours associated with the affects of fatigue including support mechanisms and the application of the procedure. Supervisors, Planners and Health and Safety Personnel, including on-site industrial representatives will participate in more detailed training.

The EAP is available to provide Employees and their families with assistance and/or support. EAP consultants will provide further education and information as required.

10. Fatigue Management System and Procedures

10.1 Fatigue Risk Management Framework

Fatigue risk management is about managing sleep, the duration of sustained wakefulness and type of work performed. The level of control will reflect the level of fatigue risk. It is a shared responsibility between CS Energy and its personnel.

Work related risk factors shall be addressed because they reduce physical performance, impact on psychological factors such as judgement, concentration, vision and decision-making processes. The process for undertaking risk assessments and fatigue assessments to identify control measures is outlined in this section.

10.2 Risk Assessment

A recognised risk methodology (e.g. AS4360 or PAS55) shall be utilised to assist in the evaluation and management of fatigue risks. Work related risk factors shall be addressed as they can reduce physical performance, impact on psychological factors such as judgement, concentration, vision and decision-making processes.

When performing a risk assessment use Form S1878, Job Safety and Environmental Analysis (JSEA) to document the activity, tasks, risk analysis and controls measures to be applied.

When undertaking risk assessments and identifying control measures refer to the risk factors that contribute to fatigue and typical control measures outlined in **Appendix 2**.

To support the risk assessment the following tools may be applied:

- (i) fatigue assessment tool, Form S1886, 'Observation and Fatigue Assessment'. Refer to Section 10.4; and
- (ii) work schedule/roster/shift pattern assessment tool, e.g. Fatigue Audit InterDyne (FAID). Refer to Section 15.

Risk assessments will provide a graded/graduated process for the determination of fatigue cut off levels such as low, moderate and high risk categories with subsequent actions such as breaks, task rotation, refreshments and others outlined in **Appendix 2**.

10.3 Identification of Fatigue

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

- Self-assessment and 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.

10.4 Assessing Fatigue Impairment

A fatigue assessment tool assists in understanding a person's level of fatigue. It is a condition of entry to CS Energy workplaces that all Employees, Contractors and Visitors can be assessed at any time for fatigue.

The fatigue assessment will be conducted by a suitably trained person who is authorised by CS Energy. The assessment shall be documented on the approved form, S1886, 'Observation and Fatigue Assessment'.

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

10.4.1 Assessment Methods, Tools and Criteria:

Provided are several fatigue assessment methods. These include:

- sleep opportunity;
- signs and symptoms – use the fatigue table detailed in **Appendix 1**;
- prior sleep wake model (sleep duration) – **Appendix 3**;
- hazard control methods – refer to **Appendices 2 and 4**, and Risk Assessment Section 10.2;
- sleepiness scales;

- hours of wakefulness;
- incident reporting; and
- self reporting.

This criteria is used in the assessment tool, 'Observation and Fatigue Assessment' form (S1886) to document, assess and provide appropriate action/s to safely manage fatigue. This form is detailed in **Appendix 5**.

This form is the tool to be used for the following assessments:

- Self.
- Random.
- Overhaul.
- With cause (post- incident).
- Reasonable suspicion.

The assessment will indicate the person's level of fatigue giving a score and corresponding risk category with pre-determined responses and actions. This is detailed in **Appendix 4**.

10.4.2 Self-assessment

Personnel are encouraged to self-assess where they believe they may be impaired due to the effects of fatigue. Self-assessment is generally performed using the Prior Sleep Wake Model (**Appendix 3**) and/or by identifying signs and symptoms (**Appendix 1**). This is a voluntary assessment process.

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 cease work immediately and 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.

Excessive non-attendance may be managed as per the performance management process outlined in the procedure, Counselling, Discipline and Dismissal, Document No. CS-HR-23.

10.4.3 Random Assessment

The Health and Safety Committee of each workplace will set the assessment frequency and number of Personnel to be assessed.

The site security system will generate a random selection of names for testing from those person's names that have "swiped in" for access to site. Those people selected will be advised to report and undergo assessment.

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

- Large numbers of Contractors on-site for a forced outage or other repair work.

- (ii) Construction projects occurring on-site.
- (iii) Community social events where it is likely persons may be fatigued.

Where random assessments have been initiated a suitably trained person shall conduct the assessment using form S1886, 'Observation and Fatigue Assessment'.

10.4.4 Overhaul Assessment

Overhauls are subject to assessments detailed in Section 10.4. Random assessments may occur during the progress of an overhaul.

10.4.5 With Cause (post-incident) Assessment

If an incident occurs in the workplace that a Supervisor or Health and Safety Specialist believes caused or could have caused serious injury to people and/or serious damage to plant and equipment (with cause), the person/s involved will be assessed for fatigue, using form S1886, 'Observation and Fatigue Assessment', as soon as practicable by a suitably trained person.

This assessment will form part of the incident investigation process.

10.4.6 Reasonable Suspicion Assessment

Reasonable Suspicion is identified from observation of signs and symptoms that may be displayed by a person impaired by fatigue. These are listed in **Appendix 1**.

If a Supervisor has a Reasonable Suspicion that a person at work is impaired by fatigue, the supervisor must, as soon as possible, direct the person to stop performing any duties that, if the person is fatigued, may present a risk of injury. The supervisor should initiate an assessment, using form S1886, 'Observation and Fatigue Assessment', by a suitably trained person.

If other Employees, Contractors or Visitors suspect a person at work is affected by fatigue, they should advise a Supervisor, that person's representative (e.g. Contract Administrator) or a Health and Safety Specialist.

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

10.4.7 Assessment Results

An Employee or Contractor who is impaired by fatigue due to work related factors or other reasons will be required to undertake a formal fatigue assessment (Form S1886) to indicate the level of fatigue to determine appropriate control measures.

When a person has been identified as having fatigue risk, control measures shall be put in place consistent with the actions and responses detailed in Table 1 and **Appendix 4**.

Also, the fatigue assessment utilises the Risk Score Chart in Section 6 of the Form S1886 to determine the appropriate fatigue management actions to allow that person 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 shall be held in accordance with Section 8, Privacy and Confidentiality and filed with the site Health and Safety Specialist (this does not include voluntary self-assessments for fatigue).

11. Management of a Person Impaired by Fatigue

Where a person has been identified with a level of fatigue that will present a risk to the health and safety of Personnel or the safe operation of plant, the person's supervisor will discuss with that person the appropriate control measures based upon the Risk Score Chart detailed in **Appendix 4**.

Where practicable, suitable alternative duties and control measures are to be selected (e.g. less physical work activities, monitoring of work, rescheduling of tasks, rest periods, longer breaks). Refer to **Appendix 2** for possible control measures. However, it may be determined that the person leave site and return to work on their next rostered work period.

Where the level of impairment is considered a health risk, that person should be referred to a medical practitioner or EAP counsellor. A medical certificate is to be obtained by that person prior to returning to work if that person has received medical treatment.

When it is not possible to provide suitable alternative duties and the person is required to leave site, the Supervisor, Superintendent or Manager shall arrange transport for that person.

11.1 Employees Affected by Fatigue

Where an Employee is affected by fatigue, the supervisor shall:

- record the fatigue assessment using form S1886, 'Observation and Fatigue Assessment';
- Apply the appropriate controls as per the Risk Score Chart;
- Where suitable alternate duties are required, conduct a risk assessment (using the JSEA) and develop suitable controls to minimise the effects of fatigue;
- Where a person is not fit for duty and required to leave site, provide transport for that person to their home or suitable place for rest; and
- Forward the Fatigue Assessment Form to the site Manager/ Superintendent for sign off then filing with the Site Health and Safety Specialist.
- Offer the services of **EAP** and/or medical practitioners.

11.2 Contractors or Visitors Affected by Fatigue

Where the Contractor or Visitor is affected by fatigue the following shall occur:

- Supervisor to record the fatigue assessment using form S1886, 'Observation and Fatigue Assessment';
- Project Manager, Site Manager or Superintendent will attempt to contact the employer prior to providing suitable alternate duties or exclusion from site;

- The Project Manager, Site Manager or employer may transfer, redeploy or stand down the person for a nominated period;
- Advise the person's employer to arrange appropriate transport to their home or suitable place for rest if exclusion from site is necessary;
- Provide a copy of the Fatigue Assessment (Form S1886) to the person's employer; and
- Offer the services of **EAP** and/or medical practitioners.

12. Rules For Managing Fatigue

12.1 Planning/pre-agreed Rosters

Table 1 prescribes the rules for managing fatigue for planned or pre-agreed rosters.

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.

*Note 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.

Table 1 – Rules for planned or pre-agreed rosters

12.2 Contingency and Call Outs

Table 2 prescribes the rules for managing fatigue for contingency and 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.

Table 2 – Rules for contingency and call outs.

12.3 Contractor Pre-commencement Requirements

Table 3 prescribes the pre-commencement requirements for contracting organisations including activities such as overhauls.

Situations	Basis	Value
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.	6 attendances, minimum 24 hour break in 7 days.	1 Break in every 7 Days.
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.	4 or more night shifts consecutively.	48 hours

Table 3 – Rules for contractor pre-commencement requirements

13. Accommodation

CS Energy is 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 to arrive at work in a fit state.

For other Personnel refer to Section 6.8, Contracting Company responsibilities.

14. 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 4.

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.

Where operation of heavy vehicles is involved, Personnel are to comply with the requirements of the National Fatigue Management Regulation for heavy vehicle operation and drivers/operators are to complete a National Driver Log Book.

15. 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. The Fatigue Audit InterDyne (FAID) model may be adopted by CS Energy.

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 for change.

Refer to Table 1 which addresses hours of work, including the total number, spread and daily limits of hours worked and minimum breaks between shifts.

16. 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 past 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 12; and
 - Other relevant factors which may impact on their ability to drive.

Conditions relating to travel shall comply with Section 14.

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. Telephone Call Disturbances

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

18. Prior Sleep and Wakefulness

The Prior Sleep Wake Model, detailed in **Appendix 3**, shall be used as part of the fatigue assessment tool. It is based upon a person's level of risk from fatigue when that person had:

- (i) less than 5 hours sleep in the previous 24 hours; and
- (ii) less than 12 hours sleep in the previous 48 hours.

The duration of their wake period is not to exceed the amount of prior sleep they have had in the previous 48 hours. This is illustrated in **Appendix 3** and supporting examples.

Control measures shall be initiated consistent with **Appendix 4** where a person reports they have had inadequate time for sleep or poor sleep. Control measures may include but not limited to shift start toolbox talks to assess prior sleep, regular onsite peer review, job allocation to less critical tasks, increased break periods, close supervision of their work related fatigue and opportunity for a rest period and being transported home.

19. Breaks Within Shifts

The duration of breaks within shifts is covered in existing industrial instruments.

Employees, subject to existing industrial instruments (e.g. EBAs) may self-select the timing of work breaks within their work schedule to assist in managing fatigue.

Further breaks may be needed based on the physical need for sustenance (e.g. hot works, work outdoors), metabolism, work load, nature of work, etc.

Changing work tasks shall not be considered as a break.

20. 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.

Job rescheduling may be necessary when there is a risk to a person's health & safety, plant or equipment if performing hazardous/critical work during the high fatigue periods, e.g. between 2:00am to 6:00am

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

21. 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. In some cases where this is not practical the CEO can delegate his/her responsibilities to the relevant Site Manager.

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.

22. 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. Audit, Review and Reporting Process

23.1 Review and Recording

A review of this procedure will be conducted within 12 months of implementation to follow that of the common policy for the Management of Fatigue developed collaboratively by Employee and Management representatives of Tarong Energy, Stanwell Corporation, and CS Energy with State Union Officials of AMWU, APESMA, ASU, QSU, ETU, and CFMEU (M&E).

The review shall determine effectiveness, functionality, compliance to the requirements within and other internally related documents/materials/practices using an auditing approach.

The audit will incorporate:

- a formal auditing tool;
- interviews with Personnel;
- a desktop audit of documentation and practices;
- examination of internal systems (databases, safety records, investigations etc.); and
- review of the work schedules and overtime utilisation.

Following the initial review, each subsequent review of this procedure will be undertaken no less frequently than once every 2 years or at other times as required by changes to the relevant Legislation or common policy for the Management of Fatigue.

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 Queensland Government Owned Corporation Generator Personnel.

23.2 Records

Fatigue Assessments shall be recorded on the Form S1886, 'Observation and Fatigue Assessment' and forwarded to the site workplace Health and Safety Specialist for filing.

23.3 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.

The following reporting shall be carried out:

- (i) Monthly report by Health and Safety Specialist to Site Manager.

- (ii) Overhaul report by Health and Safety Specialist to the Overhaul Manager/Coordinator.
- (iii) Annual Report to the Executive Management.

23.4 Incidents

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

24. Further Information

Further information or assistance with this procedure can be obtained from your Supervisor, Superintendent, First Aid Officer, Health & Safety Specialist, Site Delegate and Occupational Health Nurse.

25. References

- Workplace Health and Safety Act 1995
- Workplace Health and Safety Regulations 1997
- 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”
- Common Policy and Procedure for the management of Fitness For work with Queensland GOC Generators
- Minerals Council of Australia Work Design, Fatigue and Sleep Report, booklet dated 23 March 2006, available at http://www.minerals.org.au/safety/s_and_h_publications
- CS Energy Fitness For Duty Policy
- CS Energy Fatigue Policy
- CS Energy Workplace Rehabilitation and Workcover Claims, Doc No. CS-OHS-4
- CS Energy Counselling, Discipline and Dismissal, Doc No. CS-HR 23
- CS Energy Dealing with Confidential Information, Doc No. CS-HR-1
- CS Energy Handling Individual Records, Doc No. CS-HR-47
- CS Energy Complaints Investigations, Doc No. CS-HR-17
- CS Energy Job Safety and Environmental Analysis (JSEA), Form S1878
- CS Energy Observation and Fatigue Assessment, Form S1886
- CS Energy – Individual Site EBAs

Appendix 1 – Sign and 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)	

Use these signs and symptoms for Fatigue when completing a Fatigue Assessment.

Appendix 2 – Risk Factors and Control Measures

Supervisors/Superintendents (e.g. when preparing JSEAs in consultation with workers) should address the following issues.

Risk factors that contribute to fatigue:

- Prior sleep and wakefulness – the amount of sleep they have had prior to work and the duration of their work period.
- Working without a rest break to meet critical deadlines/milestones.
- Sleep patterns affected by frequent call outs over a limited period and extended hours of work.
- Work tasks/activities requiring concentration or high levels of muscular exertion for extended periods of time.
- Tedious and monotonous work.
- Heavy or exhausting physical activity.
- Working in high risk situations.
- Inadequate recovery from interrupted or poor quality sleep.
- Working successive shifts, frequently on call out, and regular emergency work outside standard work hours.
- Working in high heat or cold temperatures or humid conditions.
- Driving vehicles while tired.
- Accepting work which results in exceeding working hour limits.
- External factors that affect a persons fatigue risk level while at work.
 - Excess hours/Overtime.
 - Extended Shiftwork and Rostering Arrangements with early starts or late finishes over successive days.
 - Rest Breaks and Rotation of Tasks.
 - Contractors and Outages.
- Emergency Works/Time of day – incidents are more likely to happen in circadian low points (such as night time, especially between the hours of 2am to 6am).
- Length of shifts worked – the effects of fatigue are cumulative, workers are more likely to feel fatigued in the final hours of a shift, than in the first few hours of a shift.
- Lack of opportunity to recover from fatigue – incidents are more likely to occur if workers are not given a sufficient opportunity to recover from fatigue.
- How often the situation occurs – generally, the more often a worker is fatigued, the greater the likelihood is that an incident will occur.
- How many people are fatigued – generally, the greater the number of people who are fatigued, the more likely an incident is to occur.
- The skills and experience of persons fatigued – consider training and competency both to perform work related tasks and manage fatigue.

- Any special characteristics of the people involved – for example if a worker is on medication for a medical condition that is affected by circadian rhythms and night shift work (such as asthma, depression or diabetes).
- The duration of exposure to fatigue - generally, the longer a person is fatigued, the more likely an incident will occur.
- The level of risk inherent in the work – incidents are more likely to occur in work that is generally hazardous, such as when operating heavy machinery or plant.
- Number of consecutive night shifts worked.
- Commuting – time spent travelling reduces time available for recovery.
- Shift rotation – relevant shift changes and start/finish times.
- Sleep inertia – drowsiness after being woken.
- Rest breaks – the number and duration of breaks taken.
- Occupational exposure levels – extended exposure on longer shifts to noise, dusts, chemicals.
- Manual tasks – forces used to push, pull, lift, carry, reach or dexterity required for work and ergonomics – body position and location – confined or cramped work spaces.
- Proximity of workers residence or accommodation – method of travel to and from work and the risk of commuting incidents.
- Ability to access food and refreshments for a balanced diet.

Control Measures

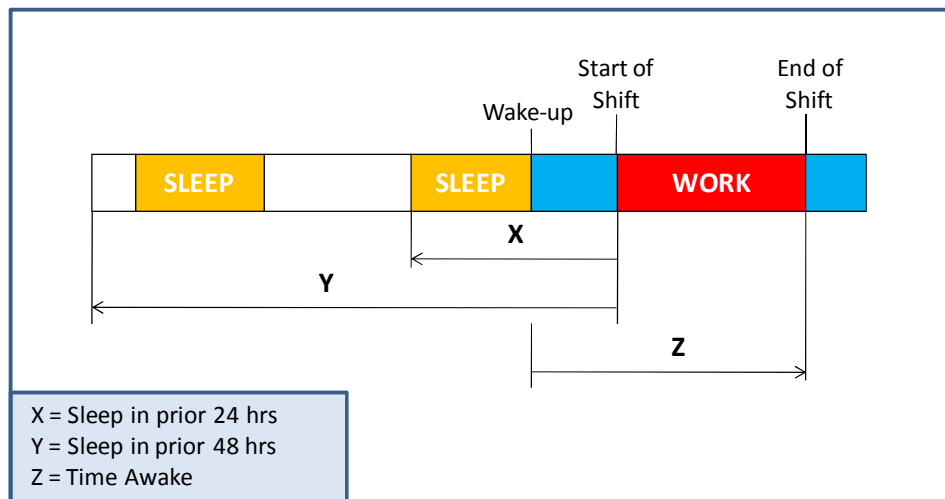
- Redesigning work practices so that routine administrative tasks are minimised for night shift workers, allowing them to focus on core duties during night work.
- Scheduling later start times so that maximum night sleep can be obtained before starting work (however this can affect those on night shift).
- Scheduling low risk work during periods of high fatigue, such as night time, especially during the hours of 2am to 6am) and/or in the latter half of shifts.
- Scheduling complex tasks to be performed only during the day.
- Sufficient supervision, particularly during periods of high fatigue (such as night time, or in the latter half of shifts) and especially for hazardous work.
- Contingency plans if workers become fatigued – this would involve removing fatigued workers from work activities where there is a considerable risk to health and/or safety (eg operating heavy machinery or plant).
- Effective emergency responses.
- Strict controls and procedures if performing hazardous work during high fatigue periods (especially during 2am to 6am).
- Job rotation for repetitive or monotonous work, or work that involves heavy physical demands.

Appendix 3 – Prior Sleep Wake Model

This tool is used for qualifying a person’s fatigue risk level/s 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.



As prior sleep decreases and prior wake increases the likelihood of fatigue also increases.

In general; **X** should be greater than threshold of **5** hours

Y should be greater than threshold of **12** hours

Z should be less than **Y**

A point system is used to determine what course of action a person and/or the organisation may take.

Step 1

X: Sleep in previous 24 hours: hrs [add 2 points for every hour below 5] pts

Step 2

Y: Sleep in previous 48 hours: hrs [add 2 points for every hour below 12] pts

Step 3

Z: Time awake: Start of Work hrs End of Work hrs
 [add 1 point for every hour of work beyond **Y**] pts

(Sum all of the points – Steps 1 to 3)

Total Score (Prior Sleep Wake Score): pts

Example – Low Fatigue

If a person has slept 6 hours in the prior 24 hours and 10 hours in the prior 48 hours and has been awake for 2 hours, that person's score would be -

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

Points System

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

0 + 4 + 0 = 4

Refer to appendix 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.

Example – Higher Fatigue

If a person has slept 3 hours in the last 24 hours and 6 hours in the prior 48 hours and has been awake for 10 hours, that person's score would be -

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

Points System

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

4 + 12 + 4 = 20

Refer to appendix 4 - Risk control measures for a score of 20 may include:

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

Appendix 4 – Risk Score Chart

Score	Risk	Response/Actions
0	n/a	Remain with working existing arrangements unless higher level hazards are present.
1 - 4	Low	Report to the supervisor and document. Undertake approved individual control measures. Self-monitor for symptoms, team monitoring by colleagues and task rotation.
5 - 8	Moderate	Report to supervisor and document. Organise supervisory checks. Complete symptom checklist and task re-assignment.
9 or more	High	Document externally, do not engage in any safety critical work and do not recommence until fit for work.

Score: The higher number from the fatigue assessment determined from either:

- (i) the prior sleep wake model; or
- (ii) signs and symptoms chart (Appendix 1)

Risk: The level designated for the risk to identify severity to priority to address.

Response/action: The appropriate course of action to address the level of risk.

Appendix 5 – Form S1886, Observation Record and Fatigue Assessment

This form is a record of the fatigue assessment for a person under CS Energy's Fitness For Duty Policy. The privacy and confidentiality of that person will be maintained with respect to the information gained as a result of the fatigue assessment.

Section 1 - Assessment Type Tick ✓ appropriate boxes

Assessment Type: Self Random Reasonable Suspicion With Cause
Work Type: Ops/Maint/Adm Overhaul Forced Outage Projects

Section 2 - Particulars of Person (being assessed) and Work Schedule Tick ✓ appropriate boxes

Engagement Type: Employee Contractor Visitor
If Contractor or Visitor what Organisation:

Surname: **First Name:**

Job Role:

Site: **Department:**

Nature of Duties:

.....

Date: / / **Time:** : hrs **Attendance Start Time:** : hrs

Work Schedule: Planned Roster Call Out Extended Hours

This assessment was undertaken hrs into the attendance.

Section 3 - Questions Tick ✓ appropriate boxes

Have you completed your designated compulsory break from previous work period? Yes No
 Will this work keep you within 72 hours worked within 7 days? Yes No
 Have you had a continuous 24 hr break since you last worked greater than 12 hrs? 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

Where 'no', the risks from Fatigue are increased. Refer to 'Rules for Managing Fatigue' Doc. CS-OHS-12 and record in Section 6.

Other Comments:

.....

.....

Section 4 - Observation, Signs and Symptoms Tick ✓ appropriate boxes

Physical: Yawning Heavy eyelids Eye rubbing Head drooping Micro sleeps

Emotional: More quiet than usual Mood changes, decrease in tolerance
 Lacking energy Emotional outburst, aggressive, rage

Mental: Difficulty concentrating on the task Difficulty remembering what you are doing
 Lapses in attention Failure to communicate important information
 Failure to anticipate events/actions Accidentally doing the wrong thing (error)
 Accidentally not doing the right thing (omission)

Total number of marked boxes: (Signs & Symptoms Score)

Transfer score to Section 6

