

# Business Procedure

## Fatigue Management Document Number – OHS-PROC-406

This document applies to the following sites:

All Sites	<input type="checkbox"/>		
Rockhampton Office	<input checked="" type="checkbox"/>	Brisbane Office	<input checked="" type="checkbox"/>
Barron Gorge Hydro PS	<input checked="" type="checkbox"/>	Kareeya Hydro PS	<input checked="" type="checkbox"/>
Koombooloomba Hydro PS	<input checked="" type="checkbox"/>	Swanbank PS	<input checked="" type="checkbox"/>
Wivenhoe Small Hydro PS	<input type="checkbox"/>	Stanwell PS	<input checked="" type="checkbox"/>
		Tarong Site	<input checked="" type="checkbox"/>
		Mica Creek PS	<input checked="" type="checkbox"/>
		Mackay Gas Turbine	<input checked="" type="checkbox"/>
		Meandu Mine	<input type="checkbox"/>

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## 1.0 Preamble

The requirements of Work Health and Safety Legislation states that employers, employees and contractors have accountabilities for addressing safety in the workplace. Additional requirements can apply to commuting to and from work. This Procedure is designed to help manage the health and safety risks resulting from fatigue-related impairment. Any possible longer-term effects of specific work patterns or shift-based work in general are not considered in this Procedure.

Due to the legal requirements, the nature of Stanwell's work environments and the potential for fatigue impairment, the effective implementation of the Procedure requires the commitment of all personnel. Fatigue-related impairment is considered an identifiable workplace hazard.

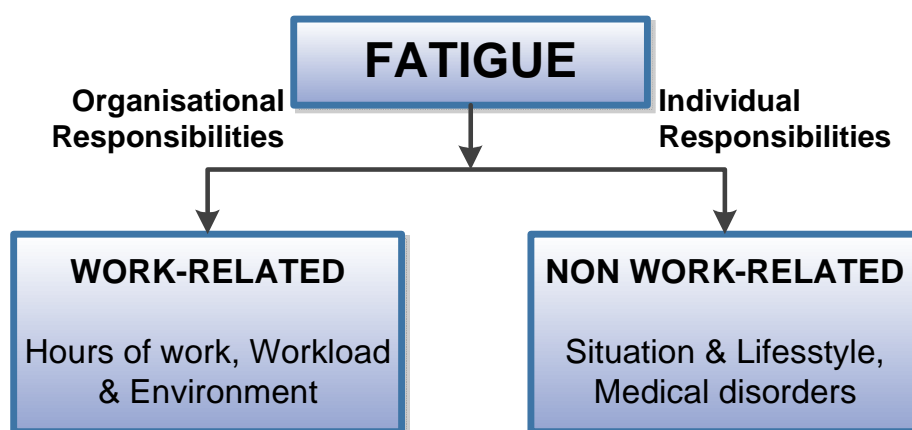
Work rosters are the primary means employers can use to establish the working hours of workers. The duration of breaks or work limits indicated in this Procedure consider the need of all individuals to achieve regular restorative sleep and other recovery within patterns of work.

## 2.0 Scope

This Procedure applies to all Stanwell's employees, contractors (including sub-contractors) and visitors while at the workplace or carrying out activities on behalf of (or when representing) Stanwell.

The management of fatigue is considered a shared responsibility between an organisation and its employees, contractors and sub-contractors. Refer to Figure 1 for an illustration of this relationship. The organisation 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. Individuals are responsible for maintaining fitness for duty by taking into account their lifestyle and other (e.g. medical) factors, and managing them appropriately.

*Figure 1 – Shared Responsibility Model*



### 3.0 Purpose

This Procedure aims to eliminate or otherwise minimise risks associated with fatigue. This Procedure shall serve as a minimum standard, unless other legally-binding requirements exist that are more conservative (e.g. in an award or employment agreement).

This Procedure prescribes the Stanwell requirements associated with the identification and management of situations that may be associated with employee fatigue. Where reasonable and practicable, additional or alternative requirements prescribed by Stanwell customers must be adhered to, provided minimum legislative requirements are also satisfied.

### 4.0 Consequences of Fatigue

Fatigue can significantly affect the ability to communicate clearly, work safely and productively, and react optimally in an emergency situation. Fatigue and related consequences such as unintentionally falling asleep can be significant factors in incidents and accidents. Even without incidents and accidents occurring, fatigue impairment can significantly impact on efficiency and productivity. One of the critical consequences of fatigue is that the ability for individuals and teams to assess their fitness for duty becomes impaired. This can mean individuals and teams may not be fully aware of their fatigue-related impairment, which can make communicating about potential issues more difficult.

### 5.0 Causes of Fatigue

Fatigue usually results from inadequate sleep, from one night of bad sleep or a build-up through a longer period of time. Fatigue can also be related to being awake at times of the 24-hour day when most people are asleep (e.g. 2am to 5am as one critical window). Other factors can contribute to fatigue, such as workload, poor medical fitness and challenging work environments (e.g. with high temperatures, humidity, etc.).

### 6.0 Responsibilities

#### 6.1 Stanwell will:

- Educate all necessary stakeholders about fatigue and fatigue management;
- Offer assistance to any employee taking into account the individual's right to privacy and confidentiality;
- Provide leadership and commitment through the allocation of resources for the establishment, implementation, evaluation and periodic updating of a fatigue management program;
- Review, monitor and track all aspects of the fatigue management program to ensure compliance across all sites and personnel;
- Develop and implement agreed working rosters to help ensure adequate opportunities for restorative sleep are provided;
- Encourage personnel to notify their Supervisor if their capacity to work safely is impaired to an unacceptable level by fatigue without fear of adverse repercussions;
- Provide suitable accommodation for individuals when they are required to travel for work; and
- Provide an Employee Assistance Program (EAP) that places emphasis on the recognition and management of fatigue.

## 6.2 Site Managers / Relevant General Managers are responsible for:

- Implementing this Procedure;
- Investigating apparent and possible breaches of the provisions of this Procedure;
- Taking appropriate actions where breaches of the procedure have occurred;
- Ensuring that the workplace induction processes includes the obligations detailed in this Procedure;
- Ensuring that investigations of incidents consider the possible contribution 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 delegating appropriate internal and/or external entities to periodically assessing the suitability and adequacy of it, and identifying any aspects that can be improved and reporting accordingly about those matters; and
- Sites to review and monitor fatigue assessments through their Health & safety Committee.

## 6.3 Superintendents and Supervisors are responsible for:

- Assisting with the implementation of this Procedure to eliminate and otherwise minimise the causes and consequences 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 factors set out in Appendix 2;
- Identifying and advising the relevant Site/General Manager about issues with the practical application of this Procedure and any possible opportunities for improvement;
- Consulting with appropriate stakeholders about work hours and other details that can impact on fatigue;
- Arranging suitable alternate duties (where possible) and/or a safe location to rest / sleep for a person impaired by fatigue during a shift;
- Ensuring that investigations of incidents consider the possible contribution of fatigue;
- Facilitating other required actions as defined in this Procedure; and
- Recognising and assessing the signs, symptoms and management of fatigue (refer to Appendix 1 for sign and symptom examples).

## 6.4 Health & Safety Personnel & Rehabilitation & Return to Work (RTW) Coordinators are responsible for:

- Ensuring that critical information regarding this Procedure are provided in 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-related data.
- Periodically assessing the auditability and adequacy of this procedure and identifying aspects that can be improved and reporting accordingly about those matters.

## 6.5 Employees, Contractors (including Sub-contractors) and Visitors (i.e. All Personnel) must:

- Not wilfully place their own or others health and safety at risk due to fatigue;
- Make every reasonable effort to be fit for duty whilst:
  - at work;
  - on call;
  - driving a vehicle related to fulfilling duties; or
  - operating plant or equipment related to fulfilling duties.
- Notify their Supervisor (or host if they are a 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 is a potential risk to health and safety;
- Communicate the obligations to comply with this Procedure;
- Participate in fatigue management education;
- Participate in fatigue assessments, fatigue risk assessments, and fatigue risk reviews, if requested;
- Report any actual or potential fatigue risks; and
- Fulfil their obligation to arrive at work fit for duty, and report anytime they may not be.

## 6.6 Stanwell Contract / Overhaul Administrators are responsible for:

- Ensuring that information in this Procedure is provided with the contract documentation; and
- Advising Contractors of their role in complying with Stanwell's fatigue management Procedure.

## 6.7 Contracting Company

- 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 and contractors;
- Contractor companies shall provide to Stanwell, 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;
- Prior to commencement on site, Contractors will ensure their workers are fit for duty by providing a sufficient break to allow for adequate restorative sleep; and
- All travel time when in control of a vehicle prior to the commencement and completion of work shall be considered as part of the assessment of fatigue.

## 7.0 Counselling and Support

### 7.1 Employee Assistance Program (EAP)

Stanwell provide 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 Stanwell workplace. Stanwell can provide information regarding the service and will arrange an appointment on request. An Employee may directly contact Stanwell EAP if they so choose.

### 7.2 Employee Treatment/Support

Stanwell 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 Stanwell considers an individual may require assistance, that employee will be encouraged to contact:

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

Stanwell will, in all cases, offer an appropriate, fully-funded treatment and or support program in accordance with their requirements for Workplace Rehabilitation and Workcover claims. Any employee who participates in a treatment and or support program to manage a fatigue-related issue will be granted any appropriate leave (which may include special leave) in accordance with Stanwell'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. Stanwell 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 or treatment/support purposes.

Stanwell will only release information to a third party as required by law, and with the written permission of the Site Manager 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.

## 8.0 Privacy and Confidentiality (cont'd)

Stanwell 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 Stanwell'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 Supervision

Work involving situations likely to lead to fatigue must be adequately supervised by a person who understands how to manage related issues, and who is authorised to make the necessary decisions where higher fatigue risk exposures are identified. Roles and responsibilities relating to safe fatigue management practices for supervisors include:

- i. Keeping informed on an ongoing basis about fatigue risks, and fatigue risk management to help individuals eliminate or otherwise minimise related risks
- ii. Allocating adequate resources to achieve and maintain compliance with health & safety obligations, and the requirements of this Procedure
- iii. Developing the capability of all individuals to appropriately identify and eliminate or minimise fatigue
- iv. Providing information about fatigue management and supporting resources
- v. Participating in fatigue risk management initiatives as required
- vi. Collecting information and/or other data for providing assurances that the requirements set out in this procedure are met
- vii. Undertaking fitness for duty assessments as appropriate

## 10.0 Fatigue Management Education

Stanwell will provide all employees with education on fatigue risk management and their responsibilities under this Procedure. This education will give employees the knowledge and clear direction to manage their own fitness for duty related to fatigue. The education will allow personnel to recognise symptoms and behaviours associated with fatigue, and available support (e.g. the EAP) for the application of this Procedure. Managers, Supervisors, Planners and Health and Safety Personnel, including on-site industrial representatives, will participate in more detailed education as required. Such additional education may include topics such as procedures for risk assessments, call-outs, and any topics considered necessary.



## 11.0 Fatigue Risk Management System

### 11.1 Risk Assessment

A recognised risk methodology (e.g. ISO31000) shall be used to assist in the evaluation and management of fatigue risks.

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

Refer to Business Procedure: Risk Management Framework – GOV-PROC-37

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

- (i) General Rules for Managing Work (section 14); and
- (ii) The Stanwell Fatigue Self-Assessment Tool (Appendix 3);

### 11.2 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; and
- Completing a fatigue risk assessment.

### 11.3 Assessing Fatigue Impairment

A fatigue assessment tool assists in understanding a person's level of fatigue. It is a condition of entry to Stanwell workplaces that all individuals can be assessed at any time for fatigue. The fatigue assessment will be conducted by a suitably trained person who is authorised by Stanwell. Any person who is requested to undergo a fatigue assessment and refuses such a request will be subject to sites Performance Management process.

### 11.4 Assessment Methods, Tools and Criteria

Provided are several fatigue assessment methods. These include:

- Signs and symptoms – e.g. using the table detailed in Appendix 1;
- Self-assessment – using the Stanwell Fatigue Self-Assessment Tool in Appendix 3
- Hours of work and/or wakefulness;
- Incident reporting and investigation approaches; and
- Peer-reporting – if an individual appears as though they may be impaired by fatigue.

### 11.4.1 Self-assessment

Individuals 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 Fatigue Self-Assessment Tool (Appendix 3) and/or by identifying signs and symptoms (Appendix 1). This is a voluntary assessment process, which is encouraged.

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 granted in accordance with the relevant procedure or applicable industrial agreement. An employee's voluntary self-assessment that results in non-attendance will not be recorded.

Self assessment should consider early signs of fatigue rather than just focussing on the obvious signs of extreme sleepiness such as falling asleep.

### 11.4.2 Random Assessment

The Health and Safety Committee of each workplace will set the assessment frequency, numbers and process to be followed for individuals to be assessed. 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:

- (i) Large numbers of contractors on-site for a forced outage or other work.
- (ii) Construction projects occurring on-site.
- (iii) Community social events where it is likely persons may be fatigued.

### 11.4.3 Overhaul Assessment

Overhauls may be selected to be subject to random fatigue assessments. Random assessments may occur during the progress of an overhaul.

### 11.4.4 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, as soon as practicable by a suitably trained person. This assessment will form part of the incident investigation process.

### 11.4.5 Reasonable Suspicion Assessment

Reasonable Suspicion is identified from observation of signs and symptoms that may be displayed by a person impaired by fatigue. Appendix 1 lists typical symptoms that may be displayed by a person impaired by fatigue.

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 or other undesirable outcome and initiate an assessment. If other individuals (e.g. 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. The Fatigue Assessment Form will be used for this assessment

#### 11.4.5 Reasonable Suspicion Assessment (cont'd)

In the event that it is not possible or practical for the person/people 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, Stanwell will make arrangements for their safe transport home, including relocation of vehicle and/or return to site later.

### 12.0 Management of a Person Impaired by Fatigue

Where a person has been identified with a level of fatigue that will or may present a risk to health and safety, the person's supervisor will discuss with that person the appropriate control measures.

Where practicable, suitable alternative duties and control measures are to be selected (e.g. less physical work activities, increased supervision of work, rescheduling of tasks, rest periods, longer breaks). 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, including relocation of vehicle and/or return to site later.

### 13.0 Fatigue Impact from Roster Alteration

New rosters or alterations to existing rosters will be subject to an assessment which may include the use of a recognised fatigue analysis tool and will be in accordance with existing industrial instruments.

## 14.0 General Rules for Managing Fatigue

Rule	Basis	Value
Planned Work - Limit number of actual work hours in any 7 day period.	72 hours in any 7-day period	72 hours maximum in any 7-day period.
Attendances – All circumstances	Minimum of 1 day off in 14	Minimum of 1 day off in 14
Call Outs / Contingency – 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.
Planned maximum hours of work per shift day (not inclusive of handovers).	12 hours.	12 hours maximum.
For activities outside the normal 7 day period (eg. outages, forced outages and special projects) the number of actual work hours will be limited. *See Note 1.	144 hours in any 14-day period	144 hours maximum in any 14-day period.
Handover for continuous shifts for individuals in roles such as: Operators, Supervisor, PTW/ATW Officer, OIC, Inspector etc.	In addition to 12-hour maximum shift, maximum 30 minutes per shift handover.	30 minutes
Long break duration.	Minimum 24 hours with no financial disadvantage.	24 hours minimum.
If Personnel are required to work 4 or more nights on consecutive days the person will have a minimum of 48-hours of rest after changing from night work/shift before returning to normal roster. *See Note 2.	4 or more night shifts on consecutive days.	48 hours (to support 2 night sleeps) *See Note 2.
Maximum hours worked in a 24-hour period	16 hours.	16 hours maximum.
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.	➤ 12 hours	Up to 16 hours
Minimum short break duration (Hours) following a call out or other contingency.	A minimum of 10 hours before next rostered attendance.	10 hours minimum.

\* **Note 1** GM's approval must be obtained and a detailed fatigue risk assessment must be conducted to ensure adequate controls are in place to manage fatigue.

\* **Note 2** The 48-hour rest period may occur at any time during a rostered period. Breaks which fall on normal projected roster working shifts will be paid as if at work.

Note Regarding Travel:

Commuting time to/from the worksite and to/from accommodation may add significant amounts of time to the period a person is awake and/or cause an interruption to normal sleeping hours. Where travel time will have a significant impact on fatigue, then travel time to undertake work should be considered as part of a Fatigue Risk Assessment.

Provision of transport will always be an option for personnel who work extended hours.

## 15.0 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 or waking up time has been achieved.

## 16.0 Breaks Within Shifts

Duration of breaks within shifts is covered in existing industrial instruments. Individuals, subject to existing industrial instruments may self-select the timing of work breaks within their shift to assist in managing fatigue based on the requirements of the instrument in place. Changing work tasks is not considered a break.

## 17.0 Call Outs

For a call out the following conditions will apply:

- A formal fatigue self assessment 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.

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.

## 18.0 Emergency and Crisis Response

In the event of a declared crisis, extraordinary hours outside of those noted in section 14 above may be worked and must be signed off by the CEO or a Representative of the CEO after the completion of an appropriate risk assessment.

Prior to working extraordinary hours, individuals must agree to be transported home and/or to be provided 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 also consider the time Emergency Personnel are on task as well as the task itself. This is particularly the case if it is expected to be a protracted event.

Regular rotation of Emergency Personnel is required 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.

## 19.0 Extended Hours

Where a person is required to work extended hours, a fatigue assessment shall be conducted and documented after 12 hours of continuous work (excluding handover period) to manage fatigue risks before work can continue.

In the circumstance where work is to further continue after 14 hours, the fatigue assessment shall be reviewed (or amended) to ensure control measures remain effective and are suitable to minimise the risks.

## 20.0 Review Process

This Procedure shall be reviewed at least every 5 years or more frequently if required, through change in Legislation, Australian Standards or workplace practices.

Any significant findings in research or technology will be brought to the attention of the Health and Safety Committees of SCL workplaces.

## 21.0 References (Including Information Services)

Work Health and Safety Act 2011

Work Health and Safety Regulation 2011

Privacy Act 1988 (Cth)

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 ISO31000 for “Risk Management”

Risk Management Framework – GOV-PROC-37

## 22.0 Definitions

<b>24-Hour Period</b>	A rolling period of 24 consecutive hours.
<b>On-Call</b>	Persons rostered to be available to respond to plant contingencies outside their rostered attendances.
<b>Call-Out</b>	A period when a person is required to work outside their rostered attendance due to an unplanned event.
<b>Circadian Rhythms</b>	Bodily rhythms that are cyclic and recur every 24 hours. For example, alertness and performance increase during the day and sleep is driven to occur at night. There are also daily rhythms in other biological activities like body temperature, heart rate and digestion, as well as in mood, memory and performance.
<b>Compulsory Break</b>	Break periods as defined in Section 15.
<b>Consultation</b>	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.
<b>Contingency</b>	A future event which is possible but cannot be predicted with any certainty.
<b>Contractors</b>	A person who carries out work under a contract for services with Stanwell, either as an individual or as an employee of a company other than Stanwell or its related bodies corporate as defined in the <i>Corporations Act 2001 (Cth)</i> .
<b>Crisis</b>	A time of severe difficulty or danger.
<b>Employee</b>	Person having a valid contract of employment with Stanwell and/or is in receipt of salary or wages from Stanwell or its related bodies corporate as defined in the <i>Corporations Act 2001 (Cth)</i> .
<b>Employee Assistance Program (EAP)</b>	The EAP is provided by trained professionals operating externally to Stanwell. 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.

## 22.0 Definitions (cont'd)

<b>Emergency</b>	A serious unexpected and potentially dangerous situation requiring immediate action.
<b>Essential Personnel</b>	Personnel vital to the resolution of the crisis.
<b>Extra Ordinary Hours</b>	Successive days of greater than 12.5 hours including handover.
<b>Fatigue</b>	<p>A state of impaired physical and/or mental performance. Influences on fatigue include, but are not limited to, restorative sleep, physical and mental activity, time of day and length of time awake.</p> <p>Fatigue is commonly associated with feelings like tiredness, sleepiness, exhaustion and weariness. It can have both physical and/or psychological effects. In operational environments, fatigue is probably best defined as:</p> <p>'Fatigue is a naturally occurring <i>state of impairment</i> associated with reduced alertness and performance, which can lead to negative efficiency and safety outcomes.'</p>
<b>Fatigue Assessment</b>	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.
<b>Handover</b>	A meeting between changes of shift.
<b>Night / Shift Work</b>	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.
<b>Personnel / Persons</b>	Employees, Contractors, Visitors.
<b>Prior Sleep / Wake Model</b>	Is a means for determining individual fatigue risk levels based on the amount of sleep obtained in the prior 24 and 48 hour period.
<b>Rest Period</b>	A period allocated for recovery and/or restorative sleep.
<b>Risk Assessment</b>	A documented process of identifying hazards, assessing the risks and determining the control measures.
<b>Roster</b>	A programmed sequence of attendance.
<b>Rostered Hours</b>	Attendance at work according to an agreed schedule.
<b>Shift Work</b>	A pattern of work rosters including day and/or night periods.
<b>Sleep Debt</b>	<p>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.</p> <p>The difference between a person's required amount of sleep, and the actual amount of sleep obtained. For example, if a person who requires eight hours of sleep only obtains six hours of sleep, then this person is deprived of two hours of sleep. If this occurs over four consecutive nights, the person will have accumulated an eight-hour sleep debt.</p>
<b>Sleep Inertia</b>	<p>Impairment of alertness and performance immediately upon waking e.g. may last for a period of up to 30 minutes.</p> <p>Sleepiness and impairment that can occur immediately after awakening. These difficulties may persist for up to twenty minutes after awakening, to the degree it is relevant for operational safety/performance. This may occur more commonly when awakening from deep sleep, when prior sleep is insufficient or at times of the day when usually sleeping.</p>
<b>Scheduling</b>	The allocation of tasks and resources.

## 22.0 Definitions (cont'd)

<b>Stakeholders</b>	Includes Employers, Employees, Employee Representatives, Industrial Organisations.
<b>Suitable Place for Sleep</b>	A facility where a person can obtain good quality restorative sleep.
<b>Transparent and Auditable</b>	Information must be readily available and accessible to all personnel within 7 days of occurrence e.g. distributed to the working party, intranet, etc.
<b>Unplanned Contingency</b>	An event that has the ability to imminently cause a) safety risks, b) environmental impacts, c) loss of generation.
<b>Visitor</b>	A person seeking access to a Stanwell workplace without entering into an employment relationship or contract with Stanwell. For example, attending a Stanwell workplace as an invited guest of an Employee or Contractor.
<b>Working Time</b>	The period of time spent conducting company business.

## 23.0 Revision History

Rev. No.	Rev. Date	Revision Description	Author	Endorse/Check	Approved. By
0	19.06.2009	Procedure Issued	Michael Joy	John Judge	A. Krotewicz
1	13.02.2014	Consolidation of the 3 Legacy Fatigue Management Procedures	C. Shackleton	Michael Joy	Trevor Hooper

## 24.0 Appendices

[Appendix 1](#) – Signs and Symptoms of fatigue

[Appendix 2](#) – Risk Factors and Control Measures

[Appendix 3](#) – Stanwell Fatigue Self Assessment Tool



## Appendix 1 – Signs and Symptoms of Fatigue

*By the time the obvious symptoms of fatigue are apparent, such as micro-sleeps, an individual's performance is already impaired and risks have increased. The importance of recognising early warning signs should be emphasised.*

*Research has demonstrated that an individual's ability to self-assess their level of fatigue, and the resultant degree of impairment, is progressively reduced once they are experiencing fatigue, while confidence in self-assessment often remains.*

*Fatigue management training and other resources will assist in the development of self- and peer-assessment capabilities. Some of the common physical and mental signs of fatigue are listed in the table below and could be included in training and communications. It is important to note that some of these symptoms can occur for reasons unrelated to fatigue (e.g. hayfever might lead to sore eyes).*

<b>Common Physical Signs of Fatigue</b>	<b>Common Mental/Behavioural Signs of Fatigue</b>
<p><i>Tired, sore eyes and/or heavy eyelids</i></p> <p><i>Yawning</i></p> <p><i>Poor hand-eye coordination</i></p> <p><i>Slower reflexes and reactions</i></p> <p><i>Fidgeting</i></p> <p><i>Lack of energy, feeling lethargic</i></p> <p><i>Increased frequency of dropping objects like tools or parts</i></p> <p><i>Speech difficulties (it may be slurred, slowed or garbled)</i></p> <p><i>Blurred vision</i></p> <p><i>Head nodding</i></p> <p><i>Drooping of eyelids</i></p> <p><i>Micro-sleeps</i></p>	<p><i>Irritability, impatience, mood changes</i></p> <p><i>More withdrawn than usual, emotional</i></p> <p><i>Lacking motivation or energy</i></p> <p><i>Slowed response time (e.g., radio contact)</i></p> <p><i>Poor memory (e.g., forget instruction and events)</i></p> <p><i>Difficulty concentrating and limited attention span</i></p> <p><i>Increased risk taking</i></p> <p><i>Impaired judgment and problem solving ability</i></p> <p><i>Difficulty making decisions, and communicating</i></p> <p><i>Working slower, checking work more, relying more on co-workers, avoiding complex tasks</i></p> <p><i>Lapses in attention or 'zoning out' (e.g. not remembering last few kilometres when driving)</i></p>

## Appendix 2 – Risk Factors and Control Measures

Supervisors/Superintendents should address the following issues during assessment of fatigue-related risks.

<b><i>Fatigue-related Risk Factors</i></b>	<b><i>Possible Treatment Options</i></b>
<b><i>Mental and Physical Work Demands</i></b>	
Repetitive or monotonous work High physical demands High mental demands	<b>Redesign jobs to eliminate boring, repetitive tasks</b> <b>Introduce challenging, meaningful tasks</b> <b>Use plant, machinery and equipment to eliminate or reduce excessive physical demands</b> <b>Introduce job rotation to limit a build-up of mental and physical fatigue (use training to multi-skill where appropriate)</b> <b>Ensure adequate breaks during the shift to allow recovery</b> <b>Use alarms and monitors, particularly for solo work</b> <b>Ensure there are adequate employees and resources to avoid placing excessive demands on staff</b>
<b><i>Work Scheduling and Planning</i></b>	
Night Shifts	<b>Schedule physically or mentally demanding tasks to be undertaken during the day, where possible</b> <b>Limit the need for safety-sensitive and/or quality-critical tasks to be undertaken during night shift</b> <b>Use a forward shift rotation (i.e. morning to afternoon, afternoon to night, night to morning)</b> <b>Utilise controlled napping</b> <b>Ensure that rosters allow for at least two full nights' sleep after the last night shift before changing to an alternate roster</b>
Hours of Work	<b>Reduce working hours</b> <b>Control the length of shifts</b> <b>Avoid working arrangements that provide incentives to work excessive hours</b> <b>Ensure that any overtime does not result in excessive total work hours</b> <b>Limit the use of on-call work, call backs or overtime (particularly unscheduled overtime)</b> <b>Monitor actual hours of work</b> <b>Provide alternative transport at end of overtime/long shift</b> <b>Ensure that responding to emergencies does not result in excessive hours</b> <b>Ensure time for adequate communication at shift handovers</b> <b>Reduce irregular and unpredictable work schedules</b>
Breaks & Napping	<b>Ensure a minimum of 10 hours break between shifts</b> <b>Allow for recovery between work blocks</b> <b>Defer non-urgent work to allow appropriate rest and recovery</b> <b>Provide adequate resources to cover breaks</b> <b>Use strategic breaks – Napping</b> <b>Must be communicated so all are clear on where and when</b> <b>Need to provide suitable facilities (i.e. First Aid Room)</b> <b>Nap length shall be between 10-30 min with 15 min after waking to recover.</b>

<b><i>Fatigue-related Risk Factors</i></b>	<b><i>Possible Treatment Options</i></b>
<b><i>Work Environment</i></b>	
Adverse Working Conditions	<p><b>Avoid working during periods of extreme temperature</b></p> <p><b>Use heating and cooling to control ambient temperature</b></p> <p><b>Control exposure to hazardous substances</b></p> <p><b>Provide effective protective clothing and equipment, allowing for different shifts</b></p> <p><b>Provide adequate facilities for rest, sleep, meal breaks, and other essential requirements, such as bathroom facilities</b></p> <p><b>Install adjustable, vibration-free seats in appropriate machinery and vehicles</b></p> <p><b>Ensure the workplace and surroundings are well lit, safe and secure</b></p>
Stress	<p><b>Ensure opportunities to clarify stress-related issues, since they can impact on sleep and recovery (which is especially critical between 12-hour night shifts).</b></p> <p><b>Provide information/referral for further assistance with stress-related issues</b></p>
<b><i>Commute Times</i></b>	
	<p><b>Assist with travel arrangements (e.g. provide transport)</b></p> <p><b>Reduce active working time to account for long commuting time or distance</b></p> <p><b>Start work at remote sites on the day after arrival and start travel home on the day after the work block is finished</b></p>
<b><i>Non-work Factors</i></b>	
	<p><b>Consider modifications to home sleeping environment (e.g. blackout curtains, air conditioning), at employee's or contractor's expense</b></p> <p><b>Provide suitable professional advice (e.g. employee assistance program, sleep disorders clinic)</b></p> <p><b>Maintain vigilance in identifying non-work related factors</b></p> <p><b>Provide information and training about how non-work related factors can increase the risks of fatigue</b></p> <p><b>Provide information for families of employees about fatigue and how non-work related factors can increase the risks of fatigue</b></p> <p><b>Provide a mechanism to encourage employees to report non-work factors that might affect fatigue management.</b></p>

## Appendix 3 – Stanwell Fatigue Self Assessment Tool

Questions	Responses		
How do you feel right now?	Very alert - wide awake	A bit tired, effort required to stay alert	Very fatigued, having difficulty staying alert
Did you sleep in the last 24 hours?	Yes - got my ideal amount of sleep	Yes - but I did not get my ideal amount of sleep	No
How would you rate the quality of that sleep?	Good	Average	Poor
Have you suffered any signs of fatigue immediately prior to or during this shift (eg. Micro sleeps, difficult concentrating)?	No	Some only Minor	Yes
Do you believe you are fit for work?	Yes	Yes, with additional risk controls	No

If one or more answer is **Red**, your **fatigue category** is **Red**. If one or more answer is **amber**, your **fatigue category** is **amber**. Otherwise, if your answers are **green**, your **fatigue category** is **green**.



Risk	Response / Actions
Low	Normal work activities. Self Monitoring. Undertake individual fatigue control measures.
Moderate	Report to supervisor. Discuss and document work to be performed and any necessary additional fatigue control measures.
High	Do not perform any work until you have had a discussion with your Supervisor about the assessment results. Identify and document work that can be performed and any necessary additional fatigue control measures.