



ASPASA

Annexure A

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TITLE: **Mandatory Code of Practice for Risk-based Fatigue Management**
The mandatory COP was drawn up in accordance with Guideline DMR 16/3/2/4-B2 issued by the Chief Inspector of Mines

ORIGINAL DATE OF COP:
REVISION DATES:
NEXT REVISION DATE:

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Name of official		Name of Official		Name of official	
Designation		Designation		Designation	
Approval date		Revision date		Authorised date	

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1. COMPANY INFORMATION

Company Audited:	
Physical Address:	
Contact Person/s:	
Telephone Number:	
Fax Number:	
Cell phone Number:	
E-mail Address:	
General Manager:	

2. AUDIT DETAILS

Project Number:	
Name of Lead Auditor:	Dr. Andre van Jaarsveld / Mr. Alex Raymond
Scope of the Audit:	Guideline for a Mandatory Code of Practice for Risk-Based Fatigue Management at Mines DMR 16/3/2/4/B2

3. STATUS OF MANDATORY CODE OF PRACTICE

- 3.1 The mandatory Code of Practice was drawn up in accordance with Guideline DMR 16/3/2/4-B2 issued by the Chief Inspector of Mines.
- 3.2 This Code of Practice is a legal document in terms of Section 9(2) and (3) of the Mine Health and Safety Act 29 of 1996.
- 3.3 The Code of Practice may be used in an incident / accident investigation/inquiry to ascertain compliance and also to establish whether the Code of Practice is effective and fit for purpose.
- 3.4 The Code of Practice supersedes all previous relevant Code of Practices.
- 3.5 All managerial instructions or recommended procedures (voluntary Code of Practices) and standards on the relevant topics must comply with the Code of Practice and must be reviewed to assure compliance.

4. MEMBERS OF THE DRAFTING COMMITTEE

- 4.1 In terms of Section 9(4) of the Mine Health and Safety Act ASPASA must consult on the content of this Code of Practice with the health and safety committee in the preparation, implementation and revision of the Code of Practice.
- 4.2 After consultation with employees, Annexure G is the list of the committee members who drafted this Code of Practice.
- 4.3 Reviewing Committee: This Code of Practice is reviewed on a two yearly basis. At reviews there will be a list of the review committee who shall acknowledge their participation in the reviews through signatures.

5. GENERAL INFORMATION

5.1 Brief description of the **mine** and its locations

Introduction

Location

5.2 **Commodities produced**

5.3 **Mining methods that could give rise to fatigue**

5.4 **Other relevant Code of Practices, Procedures and Standards**

6. TERMS, DEFINITIONS AND ACRONYMS

“**Bio-roster**” means a biologically-compatible roster that takes into account the effects of circadian rhythms, sleep cycles and the additive effect of fatigue during the working week;

“**Circadian rhythms**” means the internal cycle of roughly 24 hours that regulates the physiological and behavioural activities of all living organisms – also referred to as “the body clock”;

“**COP**” means Code of Practice;

“**DMR**” means Department of Mineral Resources;

“**EAP**” means Employee Assistance Programme meme;

“**Fatigue**” means reduced mental and physical functioning caused by sleep deprivation and / or being awake during normal sleep hours. This may result from extended work hours, insufficient opportunities for sleep, failure to use available sleep opportunities, or the effects of sleep disorders, medical conditions or pharmaceuticals which reduce sleep or increase sleepiness;

“**FMC**” means Fatigue Management Committee;

“**FMP**” means Fatigue Management Programme;

“**FFW**” means Fit / Fitness for work;

“**MHSA**” means Mine Health and Safety Act, 1996 (Act No 29 of 1996), as amended;

“**MQA**” means Mining Qualifications Authority;

“Risk” means the likelihood that occupational injury or harm to persons will occur;

“SAQA” means South African Qualifications Authority;

“SETA” means a Sectional Education and Training Authority established under the Skills Development Act No. 97 of 1998;

“Shift work” means an organisation of work where workers succeed each other at the same workplace while performing similar operations at different times of the day thus allowing longer hours of operation than feasible for a single worker;

“Supervisor” means any individual having authority, in the interest of the employer and is responsible for the day-to-day performance of a group of employees;

“Work schedule” means the hours to be worked for each day, shift, week, month or year, as scheduled by the employer;

“HOD” means Head of Department;

“Procedure” means a document that describes the process that takes an input through the implementation of a collection of activities to deliver a specified output. A procedure may exceed functional boundaries and may contain or refer to all further work instructions;

“Active work” means total time spent at work including overtime. Does not include time travel to and from work site or rest breaks during shifts;

“Extended working hours” means overtime and any working hours in excess of established rostered hours;

“Rostered Hours” means the hours for which an employee is scheduled to work in accordance to the shift system times;

“Time not working” means time outside working hours. Does not include time travel to or from the work site;

“Work Cycles/ Shift system times” means the working period scheduled between any significant break away from work;

“Work Shift” means the hours worked between the start and end of the shift, excluding any overtime or shift change over period worked;

“KPI” means Key Performance Indicators;

“ASPASA” means Aggregate & Sand Producers Association of Southern Africa.

7. RISK MANAGEMENT

- 7.1 Section 11 of the MHSa requires the employer to identify hazards, assess the health and safety risks to which employees may be exposed while they are at work, record the significant hazards identified and risk assessed. The COP must address how the significant risks identified in the risk assessment process must be dealt with, in regards to the requirements of Section 11(2) and (3) that, as far as reasonably practicable, attempts should first be made to eliminate the risk, thereafter to control the risk at source, thereafter to minimise the risk and thereafter, insofar as the risk remains, to provide personal protection equipment and to institute a programme to monitor the risk.
- 7.2 To assist the employer with hazard identification and risk assessment all possible relevant information such as accident, locality of mine, ergonomic studies, research reports, manufacturers’ specifications, approvals, design criteria and performance figures for all relevant equipment should be obtained and/or considered.
- 7.3 In addition to the periodic review required by Section 11(4) of the MHSa, the COP should be reviewed and updated after every serious incident/accident involving the conveyor belt installation, or if significant changes are introduced to procedures, mining and ventilation layouts, mining methods, plants or equipment and material.
- 7.4 In addition to the periodic review required by Section 11(4) of the MHSa, the COP should be reviewed and updated after every altered circumstance or if significant changes are introduced to procedures, mining and ventilation layouts, mining methods, plant or equipment and material.

During July 2015 a risk management assessment was conducted at ASPASA.

8. ASPECTS TO BE ADDRESSED IN THE CODE OF PRACTICE

Introduction: What is Fatigue?

Fatigue can be defined as increasing difficulty in performing physical or mental activities. Signs of fatigue include tiredness even after sleep, psychological disturbances, loss of energy and inability to concentrate. Fatigue can lead to incidents because workers are not alert and are less able to respond to changing circumstances. As well as these immediate problems, fatigue can lead to long term health problems.

8.1 Factors to be considered when addressing fatigue at mines

8.1.1 Causes of fatigue

Fatigue is a loss of alertness & performance caused by:

- Too little sleep
- Poor quality sleep
- Working at times you should be asleep
- Mentally or physically demanding work

Whilst the above model is not claimed to be a complete representation of all the factors that contribute to fatigue, it points towards a need to broaden our efforts to manage this issue.

Acute fatigue is caused by immediate episodes of sleep deprivation, e.g. because of long periods of wakefulness from excessively long shifts or nightshifts without adequate day time rest. Ongoing sleep disruption can lead to sleep debt and chronic sleep deprivation, placing individuals in a state of increased risk to themselves and to others.

If sleep deprivation continues, work performance can deteriorate even further. Causes of fatigue can result from features of the work and workplace and from features of a worker's life outside work. Levels of work-related fatigue are similar for different individuals performing the same tasks. Work-related fatigue can and should be measured and managed at an organisational level. Non-work related causes vary considerably between individuals. Non-work related fatigue is best managed at an individual level.

8.1.1.1 Work-related Causes

Work-related causes result from:

- Shift schedule design, e.g. too many consecutive night shifts, work time arrangements.
- Aspects of the tasks being undertaken, e.g. greater workload within standard shifts, work stress.
- Features of the working environment, e.g. noise or temperature extremes, poor ergonomic design of workstations and equipment.

8.1.1.2 Non Work-related Causes

Causes of non-work-related fatigue include:

- Sleep disruption due to ill family members.
- Strenuous activities outside of work, such as second jobs.
- Sleep disorders.
- Inappropriate use of alcohol, prescription and illegal drugs.
- Stress associated with financial difficulties or domestic responsibilities.
- Living conditions.
- Lack of exercise.
- Undiagnosed / poor management of medical condition

Why is fatigue a Problem?

Fatigue causes an increased risk of incidents because of tiredness and lack of alertness. When workers are fatigued, they are more likely to exercise poor judgment and have a slow reaction to signals. This can increase all risks on site because fatigued workers are less able to respond effectively to changing circumstances, leading to increased likelihood of incidents due to human error. Fatigue can also result in long term health problems, such as:

- Digestive problems.
- Heart disease.

- Stress.
- Mental illness.

8.1.1.3 Total Worker Fatigue:

The fatigue experienced by an individual is usually an accumulation of several of the above factors and can be experienced in the following equation

$$FT = FSS + FEW + FPF$$

Where:

FT = Total Fatigue

FSS = Fatigue caused by the shift system / rostering

FEW = Fatigue caused by ergonomic, environmental and work factors

FPF = Fatigue caused by personal factors such as insufficient / poor sleep, health, nutrition and personal lifestyle

8.2 Development of a Fatigue Management Plan

In general, the goal of a fatigue management plan is to maintain and, where possible, enhance safety, performance and productivity in operational settings, and manage the risk of fatigue in the workplace.

Purpose

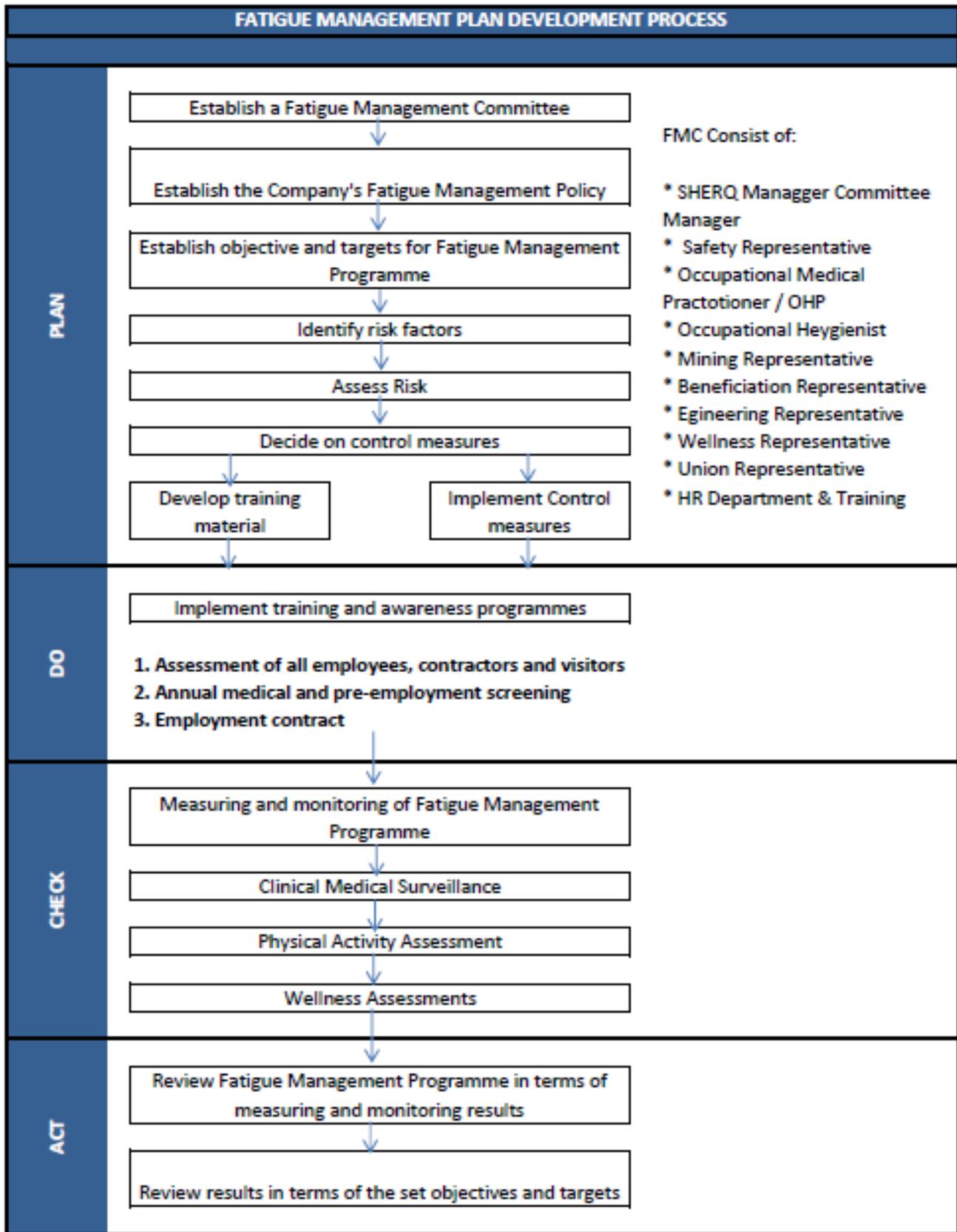
The development of a Fatigue Management Plan will assist **Organization** to develop strategies to effectively control the risks of fatigue. It sets out a risk management approach based on consultation with the workforce. This approach requires **Organization** Management to:

- Hazard Identification;
 - Identify factors that contribute to fatigue.
 - Identify the hazards of fatigue
- Assess the risks of fatigue;
- Implement risk control measures;
- Monitor and review the effectiveness of the controls;
- Ensure that all individuals are alert and fit for work whilst undertaking the activities of the mine on their behalf; and
- Document a Fatigue Management Plan

The plan will include all working areas, departments, employees, contractors, visitors and general public where a fatigue risk exists.

The recommended process of developing and maintaining a successful fatigue management plan consists of the following interrelated elements:

- a) Securing and maintaining senior management commitment;
- b) Establishing a fatigue management committee;
- c) Developing policy and programme;
- d) Managing fatigue;
- e) Communicating policy and fatigue management plan;
- f) Information, education and communication; and
- g) Monitoring, reviewing and modifying.



Organization fatigue management plan Clause 9.1

8.2.1 Management commitment and Stakeholder Buy-In

8.2.1.1 Roles and Responsibilities

The Fatigue Management Programme has named the designations that are responsible for different actions. It is the **Organization** Management's responsibility to ensure that the Fatigue Management Programme is implemented, but the employees must understand that they are also responsible for successful implementation.

Organization Management will sign off the Fatigue Management Plan and ensure that adequate resources will be provided in order that the programme can be implemented successfully.

This Code of Practice will name the designation that will be responsible for different actions.

The overall responsibilities for the successful implementation of the Fatigue Management Programme are as follows:

Specific roles and responsibilities are defined as follows:

Senior Manager

Responsible for the overall successful implementation of the Fatigue Management Programme, ensuring adequate resources and commitment from the respective departmental Managers.

Senior Manager

Responsible for ensuring the adoption and implementation of the COP implementing on site to ensure that;

- employees are informed of the risks associated with fatigue and are able to participate in controlling these risks;
- the design and implementation of rosters, shifts and procedures minimises the causes of fatigue;
- hours worked by all individuals on site are monitored to prevent excessive time being worked;
- appropriate education and training on fatigue is provided to all employees and other individuals on site;
- Supervisors and Managers receive appropriate training in understanding and managing fatigue;
- appropriate medical and counselling resources are provided to assist individuals suffering from fatigue;
- appropriate surveillance is carried out to monitor and prevent excessive exposure to workplace contaminants such as noise and hazardous substances;
- individuals who seek assistance will not be disadvantaged and their employment rights will be safe guarded;
- appropriate procedures and facilities are established to ensure that sensitive medical and other personal information with respect to this policy is kept confidential; and
- Provision of resources:

The Senior Manager and Head of Departments ensure that adequate resources are allocated for the education, training, counselling and other requirements of the COP throughout the site's operations.

Manager / Supervisors

Responsible for adherence to the Fatigue Management Programme. The Supervisor's responsibilities include:

- Identifying employees that are prone to fatigue in their area of responsibility
- Manage fatigued or fatigue prone employees according to this standard
- Report all incidents related to fatigue.
- Fostering active cooperation with the policy:
Managers and Supervisors will manage this COP in a way that encourages individuals to bring up concerns about their own or other individuals' level of fatigue and other issues that may impair their Fitness for Work.
- Assessing Fitness for Work:
Managers and Supervisors are responsible for assessing the fatigue levels and Fitness for Work of individuals under their control, at the start of and throughout the work period.
- Minimizing the impact of Fatigue:
- Managers and Supervisors will ensure that all practical steps are taken to minimise fatigue and its effects. This will include;
 - assessing education on the effects of fatigue, especially its effects on alertness and performance;
 - obtaining the skills to assess fatigue and using their authority to direct fatigued individuals to leave the work place;
 - reassessing work requirements to allow extra time for tasks when individuals are likely to be sleep deprived or fatigued;
 - providing written instructions and other checking procedures to counteract the impairment caused by fatigue on short term memory and verbal communication;
 - rescheduling (where possible) easy, short, interesting tasks for times when individuals are most likely to be affected by fatigue; and,
 - modifying the physical environment to reduce the impact of fatigue (e.g., using bright lighting to stimulate alertness).

Safety Representative

Responsible for safety related and other inputs and feedback with regards to the Fatigue Management Programme.

Occupational Medical Practitioner / OHP

Responsible for occupational health related fatigue risk assessments and feedback with regards to the Fatigue Management Programme.

Union Representative

Responsible for assisting the Health & Safety Committee and **Organization** management by being actively involved in the development of the Fatigue Management Programme and implementation thereof by interacting with their members and branch management with regards to the strategies.

Employees

Employees are responsible to ensure their own safety and health at work and to avoid adversely affecting the health and safety of any other person. In order to fulfil this responsibility, each individual has the following obligations.

- Reporting for work in a fit condition.

Employees are expected to arrive at work sufficiently rested to be able to safely perform their duties for the duration of the work period. This will include;

 - ensuring that they obtain adequate sleep to prevent fatigue (this is especially important for shift workers who should actively plan to obtain adequate rest);
 - ensuring that their activities outside working hours do not compromise their capacity to work safely and effectively; and
 - exercising particular care to prevent fatigue at critical times such as returning to site, shift change and commuting.

If the employee reports for work and believes they are not sufficiently rested to commence duties they must report it to their supervisor.
- Notification of any actual or potential impairment of Fitness for Work

Employees must notify their immediate Manager / Supervisor of any concerns about or potential impairment of their Fitness for Work due to fatigue or any other issue. This includes;

 - notifying the company of any commitments (other jobs, hobbies, study, excessive commuting time etc.) which may cause them to be fatigued (the Manager will assess the potential impact of this on their ability to comply with the requirements of this procedure); and
 - informing their supervisor if at any time during the shift they become too fatigued to work safely.
- Appropriate use of medication

Employees must ensure that any prescription or non-prescription medication that could cause fatigue is taken safely. This requires individuals to;

 - Discuss with the prescribing medical practitioner the nature of their duties and any possible impact of the medication on their safety or work performance.
 - Notify their immediate manager or the site medical staff of any medication that could affect their safety or work performance.
 - Take medication strictly in accordance with their doctor's instructions or the manufacturer's recommendations.
 - Report any side effects to their doctor and to advise their immediate manager or the site medical staff of their concerns.
- Notification of breaches of the Policy

All employees must notify their immediate Manager or Supervisor of any situation in which this policy may have been breached. This includes any situation in which the other individuals may be fatigued and unfit for work or any other apparent breach of the policy.

All such information will be dealt with in confidence in accordance with the procedure below on confidentiality.

8.2.1.2 Assistance for Employees with Fatigue Problems

The Organization will ensure that all employees have access to a confidential and professional assistance to address and resolve work and personal issues that might cause fatigue. This will require the site to establish appropriate medical and psychological providers with specific expertise in this area. In addition, these providers will also advise and support Managers and Supervisors in dealing with employees with fatigue and other Fitness for Work problems.

8.2.1.3 Management of Employees who are Fatigued at work

(i) Employees who are fatigued at the commencement of the working period

Where a manager or supervisor believes that an individual may be fatigued at the start of shift, they will assess the situation and decide;

- if the employee is to be allowed to,
 - remain at work doing their normal duties, or,
 - be removed from their duties but perform other useful work, or,
 - be stood down and sent home for the rest of the shift.
- if the fatigue is a result of,
 - the employees' deliberate decisions or behaviour, or
 - factors outside the individual's control (e.g., difficulty sleeping during the day).

The supervisor will also

- record the incident through the appropriate process,
- take appropriate action which may include referral for assistance or appropriate disciplinary counselling.

Where the supervisor is aware of repeated occurrences of such behaviour, he or she should refer the individual to the appropriate manager for assessment and action.

(ii) Managing employees who become unfit for work during the course of a work period

Where an individual becomes fatigued during a working period, the supervisor will; ensure that the individual is immediately isolated from the workplace and prevented from driving a vehicle or operating any machinery until an assessment has been made.

The supervisor will consider the specific circumstances of the situation and consider action such as:

- continue at work with increased supervision or assistance from a co-worker,
- a rest break of appropriate duration at a location away from the workplace,
- allocation to other, non-safety sensitive duties,
- removal from the workplace and transport back to his or her accommodation.

The supervisor will also;

- attempt to determine if the Fatigue is a result of,
 - the employees' deliberate decisions or behaviour, or,
 - factors outside the individual's control (e.g., difficulty sleeping during the day).
- record the incident through the appropriate process,
- take appropriate action which may include referral for assistance or appropriate disciplinary counselling.

Where the supervisor is aware of repeated occurrence, he or she should refer the individual to the appropriate manager for assessment and action.

(iii) Counselling and Discipline Procedures

All counselling and disciplinary action taken in support of this procedure shall be carried out in accordance with the company's HR Policies and Procedures.

(iv) Protection of Job Security

Employee's promotional opportunities and job security will not be jeopardized because of voluntary notification that they are fatigued. However, if the employee is identified as being fatigued on a regular basis then the matter will be managed through the company's usual Policies and Procedures.

(v) Confidentiality of Personal Information

The site ensure that information relating to individuals' fatigue and Fitness for Work is transmitted, used and stored in a confidential manner. All reasonable efforts, consistent with safety, legal requirements and common sense, must be made to maintain individuals' privacy. In order to do this the site will implement the following procedures:

Disclosure of Fit for Work Information

Managers will adhere to the following procedures in disclosing information about an individual's Fitness for Work;

- The manager will inform the individual as to;
 - the reason or need for disclosure;
 - to whom the disclosure will be made; and,
 - the extent of information that will be disclosed.
- Fitness for Work information will be provided only to those persons who have a legitimate "need to know". Typically this will be only to those who have responsibility for ensuring the individual's safety and performance.
- Disclosure will be limited to the information necessary to address the situation. For example where an individual's Fitness for Work is of concern, disclosure would typically be about the implications and not about the cause of the concerns.
- Individuals seeking information about another person's Fitness for Work will be informed of the confidential nature of these matters and site's policy of not commenting in such circumstances.
- Organisations seeking information about job applicants who are current or former employees will be informed that the site does not provide FFW information as part of reference checks.

Circumstances that might require a breach of confidentiality

Managers may need to provide information about an individual's Fitness for Work where there is a significant threat to the person's own or another individual's safety. Before deciding to provide the information, the Manager will;

- make all reasonable efforts to ensure that the situation is serious;
- consider other ways to resolve the situation;
- disclose only the information required to effectively address the situation;
- disclose only to those individuals who have a legitimate need to know; and,
- where practicable and appropriate, discuss the situation with the appropriate corporate staff.

Transmission of Fatigue information

The site will establish procedures to ensure that Fitness for Work information is transmitted in a confidential manner. This will involve;

- ensuring the confidential transmission and reception of sensitive information including;
- informing external parties (medical or psychological providers) that they should release information only to nominated individuals;
- ensuring this information is clearly endorsed as "confidential" and "for personal attention" of the addressee; and,
- using faxes only when the information will be received immediately and directly by the person to whom it is addressed.

Storage of Fatigue information

The site will establish procedures to ensure that Fitness for Work information is managed in a confidential manner. This will involve;

- secure physical facilities (e.g., storage of confidential information in a lockable, filing cabinet in an area with restricted access);
- storing information in a separate cabinet or draw which is kept locked and clearly labelled as "confidential";
- establishing a written procedure which specifies;
 - the circumstances under which information may be accessed; and,
 - that the specific permission of the Site Manager or his designate is required to access the information;and,
- ensuring that electronic storage of Fitness for Work information is secure by establishing appropriate coding and security procedures.

8.2.2 Establish a fatigue management committee

Given the complexities involved in the design, implementation, monitoring and review of a FMP and the various different disciplines and department's involved, close co-operation and effective management are essential. The Organization should establish a Fatigue Management Committee (FMC) at the **Organization** to discuss and address the identification circumstances leading to fatigue and the control measures necessary. This function can form part of the Health & Safety Committee operation. Action plans should be monitored at committee meetings. See Annexure F for KPI's of the Committee activities.

The FMC should elect its own chairperson and scribe. (See Annexure I).

8.2.3 Develop a policy (to be integrated into Health & Safety policy)

Policy Development

The aim of the policy is to ensure a safe working environment by;

- ensuring that whilst at work or undertaking activities on **Organization's** behalf employees, contractors and other individuals are alert and not suffering from the impairing effects of fatigue;
- ensuring that **Organization** meets its obligations to employees, contractors and to the general public to carry out all its activities safely;

- providing assistance through a range of preventative, educational and rehabilitative measures to address fatigue related problems that could impair individuals' Fitness for Work; and,
- ensuring that all employees who are deemed unfit for work as a result of fatigue and related issues are dealt with in an effective, fair and constructive manner.

POLICY REVIEW AND CONTROL

The original approved procedure will be available at the Documents Administrator. The revision of this procedure will take place after two years except:

In the case of any changes to legislation, Management Instruction, process change or any SHE incident relating to this topic then the procedure must be revised, as soon as reasonably practicable. This will include the following:

Assessment of employees during recruitment

- The total number of applicants who underwent a pre-employment medical assessment as well as an assessment for their potential fatigue.
- The number of applicants who required further assessment or who were unsuitable as a result of fatigue.

Management of employees during employment

- The number of individuals deemed to have been unfit for work due to fatigue;
 - at the start of shift
 - during shift.
- The number of individuals,
 - counselled for being fatigued as a result of their deliberate decisions or behaviour,
 - referred for medical or psychological assistance to address fatigue, and,
 - self referred to the Employee Assistance Programme as a result of fatigue.

Shift and roster cycles

- The number of individual shifts worked that exceeded 12 hours.
- The number of shifts and rosters worked that did not conform to the specified guidelines.
- The number and type of individual raised concerns about shift or roster cycles.

Training and education

- Employee education
 - The number of fatigue education and information programmes conducted;
 - The number of individuals who attended an information and education session; and,
 - The number of individuals on site who have not attended an information and education session.
- Supervisor training
 - The number of supervisor training sessions conducted,
 - The number of Managers and Supervisors who have attended a supervisor fatigue training session.

Incidents / call outs / commuting

- The number of employees called out after their normal hours of work.
- The number of incidents or accidents where fatigue was a likely contributing factor.
- The number of individuals who commute for more than a total of 60 minutes each working period.
- The number of individuals who commute excessive distances at the end of their roster cycle.

Accommodation

- The number of concerns raised about on-site accommodation.
- The number of concerns raised about on-site conditions (noise, meals etc.).

Roster review

- The number of reviews of company rosters carried out.
- The number of reviews of contractors’ rosters carried out

8.2.4 Fatigue Risk Management

Step 1: Hazard Identification

To identify if any hazards from fatigue exist in your workplace, check if any of the following risk factors exist in your workplace:

Risk Factors	Yes/No	Work areas or Jobs affected	Action Needed
1.Shift schedule design factors ,i.e.:			
o Long hours of work within a single shift or across a shift cycle or because of on-call duties. This includes travel time, especially for remote sites.			
o Short breaks between or within work shifts.			
o Shifts start / finish times, e.g. a start time of between midnight and 6am.			
o Change to rosters.			
2. Task related factors:			
o Repetitive or monotonous work.			
o Sustained physical or mental effort.			
o Complex physical or mental tasks.			
3. Work environmental factors, i.e.:			
o Excessive commuting times necessary.			
o Stress.			
o Adverse working conditions, e.g. noise, dust,			
4. Non-work related factors, e.g.:			
o Family commitments.			
o Sleeping disorders.			
o Psychological issues.			
o Alcohol and drug use.			
o Second job / non-paid work.			

See Annexure D & E as guidelines in risk assessments

SHIFT AND ROSTER DESIGN AND MANAGEMENT

(i) Shift and roster design

Roster evaluation and design is a complex process and may require specialist advice. An effective roster needs to take into account;

- the business needs;
- occupational health and safety considerations; and,
- employees' needs and preferences.

Managers will ensure that all rosters (including contractors') conform to the basic guidelines as per Annexure A.

(ii) Monitoring of hours worked

The company will establish procedures to monitor hours worked and ensure that individuals have adequate opportunity for rest.

(iii) Monitoring of exposures to other hazards

The company will establish procedures to ensure that individuals are not exposed to excessive hazards such as noise, noxious substances etc. as a result of working extended hours or compressed work cycles.

Step 2: Risk Assessment

Managing fatigue involves assessing the risks associated with the workplace factors that contribute to fatigue.

For each of the risks:

- Determine the likelihood of an incident occurring at the workplace, bearing in mind the existing control measures;
- Determine the consequences of an incident occurring at the workplace, bearing in mind the existing control measures; and
- Combine the estimates of the likelihood and consequences to rate the risk.

Site specific information and evidence of fatigue-related incidents could be used to assist in the risk assessment process. In this context review:

- Incident report;
- Self-reports and complaints from employees;
- Reports from supervisors about any evidence of fatigue; and,
- Environmental and medical monitoring and other advice from those with technical experience in the relevant disciplines.

From this information, determine the risk factors that need to be controlled and prioritise actions. (See Annexure B & C)

Step 3: Risk Control

Control measure guideline and matrix of technology

Control measure guideline

Unless you eliminate the risk, you will need to use a range of control measures from across the hierarchy. In particular, vigilance by Managers, monitoring whether workers are experiencing fatigue, is a fundamental control measure that will support all other risk control measures. A checklist to help Supervisors identify and assess fatigue impairment is provided below.

Here are some possible control measures for the different risk factors:

FACTOR	CONSIDERATION
Roster design factors	
Night shifts, including the number of consecutive nightshifts.	<ul style="list-style-type: none"> • Eliminate or limit night work. • Eliminate the use of night shifts for particular jobs or activities. • Limit the number of consecutive night shifts worked. • Move as much activity as possible to day shifts, particularly work which may be high risk at night, particularly on the first night of a night shift cycle. • Schedule complex tasks for day time. • Minimise or redesign routine administrative tasks to ensure employees can focus on core duties during their night work.
Long hours of work in a single shift. This includes travel time, especially for remote sites.	<ul style="list-style-type: none"> • Improve order, speed, direction and length of rotation of the shift cycle. • Ensure adequate time off after a set of night shifts. • Allow for naps during night shifts. • Reduce working hours. • Increase resourcing. • Eliminate the use of extended hours for particular jobs or activities. • Control the length of shifts. • Limit the use of overtime, especially unscheduled overtime. • Monitor hours of work.

FACTOR	CONSIDERATION
Roster design factors	
Long hours of work across a shift cycle.	<ul style="list-style-type: none"> • Reduce working hours. • Reduce the number of consecutive day shifts that can be worked.
Long hours because of on-call duties.	<ul style="list-style-type: none"> • Limit the use of standby and on-call duties. • Ensure that exchange of shifts does not result in excessive hours.
Short breaks between work shifts.	<ul style="list-style-type: none"> • Increase the length of breaks between shifts. • Allow for recovery between work periods. • Defer non-urgent work to allow appropriate rest and recuperation for employees. • Provide rest days. • Improve the timing of shifts. • Allow for family and social commitment between shifts and shift cycles.
Short breaks within work shifts.	<ul style="list-style-type: none"> • Provide more and / or longer breaks to allow for recovery within work periods. • Provide adequate resources to cover breaks. • Ensure adequate number and location of crib and toilet facilities. • Reduce the use of split shifts.

	<ul style="list-style-type: none"> Allow for family and social commitments within shifts.
Shift start / finish times.	<ul style="list-style-type: none"> Don't start or finish between midnight and 6am. Minimise the work that has to be done between midnight and 6am.
Changes to rosters.	<ul style="list-style-type: none"> Reduce irregular and unpredictable work schedules.
Non-work related factors.	<ul style="list-style-type: none"> Provide suitable professional advice, e.g. an EAP, sleep disorder clinic. Maintain vigilance in identifying non-work related factors. Provide information and education about how non-work related factors can increase the risks of Fatigue.

Control Measure Checklist

	Question	Yes/NO	Action Needed
1.	Can you eliminate any risk factors, e.g.:		
1.1	Reduce hours of work?		
1.2	Eliminate or limit night work?		
1.3	Eliminate shifts that start between midnight and 6am?		
1.4	Eliminate the use of shift work or extended hours for particular jobs or activities?		
1.5	Move as much activity as possible to day shifts, particularly work which may be a high risk at times when impairment is likely, e.g. at night?		
1.6	Eliminate sources of risks that might exacerbate Fatigue, e.g. lack of job control, manual handling, and extremes of temperature?		
1.7	Start work at long distance commute sites on the day AFTER arrival and start travel home on the day AFTER the shift cycle is finished?		
2	Can you improve work scheduling, e.g.:		
2.1	Improve the duration and timing of work?		
2.2	Minimise the work that needs to be done between midnight and 6am?		
2.3	Allow for recovery within and between work periods, including allowing for naps while on night shifts?		
2.4	Schedule complex tasks for daytime?		
2.5	Minimise or redesign routine administrative tasks to ensure employees can focus on core duties during their night work?		
2.6	Roster enough employees during peak times and demands?		
2.7	Defer non-urgent work to allow appropriate rest and recuperation for employees?		
2.8	Allow Supervisors and workers to reschedule tasks if Fatigue becomes a problem?		
2.9	Reduce the use of split shifts?		
3	Can you improve roster design by addressing:		
3.1	The speed and direction of rotation?		
3.2	The number of consecutive shifts, both night and day, worked?		
3.3	Provision of rest days?		
3.4	The timing of shifts?		
3.5	Order of rotation shifts?		
3.6	Roster pattern and length of cycle?		
3.7	Increasing the length of breaks between shifts?		
4	Can you improve control over hours of work, e.g.:		
4.1	Reduce irregular and unpredictable work schedules?		
4.2	Control the length of shifts?		
4.3	Limit the use of overtime?		

4.4	Limit night work?		
4.5	Ensure adequate breaks during shifts?		
4.6	Limit use of standby and on-call duties?		
4.7	Ensure that exchange of shifts does not result in excessive hours?		
5	Can you control the consequences of non-traditional shifts, e.g.:		
5.1	Control exposure to hazardous substances and environments?		
5.2	Ensure safe and efficient shift hand-over?		
5.3	Allow for family and social commitments?		
5.4	Assist with travel arrangements?		
6	Can you use engineering controls, e.g.:		
6.1	Heating and cooling to control ambient temperatures to support alertness?		
6.2	Alarms and monitors, particularly for solo work, e.g. driving vehicles?		
7	Can you provide relevant training?		
8	Is the use of protective gear effectively managed, allowing for the different shifts?		

Step 4: Monitoring and Evaluation

THE EFFECTIVENESS OF THE FATIGUE MANAGEMENT PLAN

With any Fatigue Management Programme, the direct measurement of effectiveness is extremely difficult for a number of reasons including;

- Direct measurement tends to focus on the high probability (but typically low impact) events. These often tell us little about the likelihood of a catastrophic event.
- Changes in any targeted outcomes result from a large number of known and unknown factors and these may conceal the true effects of the programme.

In addition, an exclusive focus on outcome measures often results in efforts to “manage the figures” rather than the risks.

As a result of the above, the measurement of programme effectiveness should strike an appropriate balance between “leading indicators” and outcome measures. The following are examples of the former;

- The number of individuals diagnosed and treated with sleeping disorders.
- The number of individuals who self-report fatigue when at work.

Obviously we should be interested in outcomes and these will involve the usual measures such as;

- Incident / accident rates
- Equipment damage
- Feedback from employees, etc.

However, as noted above, these latter measures are unlikely to tell us much about the risk of serious incidents.

Step 5: Documenting FMP

Document the Fatigue Management Plan

The Fatigue Management Programme will be integrated as part of the integrated Health & Safety management system. The programme will be:

- Specific to the **Organization**.
- Developed through consultation.
- Publicly available, e.g. on display.
- Communicated regularly and appropriately, e.g. in inductions.
- Reviewed to take account of changes in site needs and knowledge about the risks.

It includes:

- A statement of the principles for managing fatigue.
- Roles and responsibilities for all levels of the enterprise.
- The risk assessments that have been undertaken.
- The risk controls that are and will be in place, along with an implementation plan.
- The support system that already exist and that will be set up, along with an implementation plan, e.g. hours of work monitoring, Employee Assistance Programmes (EAPs), training programmes, monitoring systems.
- A detailed guideline for First Line Managers to identify Fatigued employees and manage such employees is also included in this Code of Practice.

Implement the Agreed Plan

The implementation phase is the most important step in this process. Key issues that have been considered in implementing the programme were:

Timeframes

Keeping to the agreed timeframes is very important. If actions slipped behind, adequate control measures will not be in place. The workforce will also become less supportive if they can't see the agreed actions being done. Action plans will be regularly monitored to make sure that the agreed timeframes are being met

Testing

For some risk controls, testing or trial runs of the control measures will be performed before they are permanently put into place.

Training

Many of the new risk control measures will involve training. Training is not a suitable control measure in itself, but training is essential to good risk control. Training gives the workforce the skills and knowledge they need to work with risk controls for fatigue and so that they know about the Fatigue hazards and risks in the workplace. Fatigue Management Programme training will be scheduled to ensure that the employees have the skills and knowledge they need to assist **Organization** Management in implementing the Fatigue Management Programme successfully.

Communication

The entire workforce needs to know about the Fatigue Management Programme. Different groups of ASPASA will have different needs and the following factors have been taken in account:

- Some workers may not be able to read English very well.
- Night shift workers may not get the informal communication that day shift workers receive.
- Some workers may have difficulties attending information meetings because they work away from a central workplace.

The methods of communication will include, but not limited to:

- Awareness campaigns
- Toolbox talk material prepared
- Information shared in SHEQ forum meetings
- Prepared induction material for computer based training
- Posters, pamphlets, booklets, etc.

The methods for communicating need to take different needs into account

Participation

All employees will be involved in making the Fatigue Management Programme development and implantation through representation by their respective trade union representatives.

All employees will be provided with sufficient information and skills training needed to make the Fatigue Management Programme succeed in its objectives and targets. The participative approach will effectively and efficiently deal with any challenges that may arise.

REVIEW AND EVALUATION OF THE EFFECTIVENESS OF CONTROLS

All aspects of Fatigue Management will be reviewed at regular intervals to ensure continuing suitability, adequacy and effectiveness of the controls for elimination risk. This will include a review of the Fatigue policy when circumstances change at ASPASA, shift schedules change or when there is any indication that risks are not being controlled.

Regular inspections and auditing of all aspects of the Fatigue Management Programme will help to ensure that employed risk controls are working as they should.

8.2.5 Communicating the policy and fatigue management plan

POLICY REVIEW

The General Manager with the Fatigue Management Committee will ensure that appropriate information is collected to demonstrate that the policy has been effectively implemented, managed, reviewed and adapted in the particular reporting period.

Records

Record Name	Reference	Description	Storage	Retention Period
N/A				

8.2.6 Information, education and awareness

To ensure that they have the knowledge and skills to minimise and manage fatigue, all individuals regularly working on the site should be provided with the education and training necessary to understand and manage the causes of fatigue. See annexure H point 2.

8.2.7 Monitoring, reviewing and modifying

The FMP should be subject to periodic assessments (minimum at least every two years) to ensure that it remains appropriate and effective, and can address existing and emerging or changed fatigue risks. Targets should be set for key parameters of the FMP. The review should cover the testing and auditing of all aspects of the FMP, in order to determine if controls are meeting business and safety goals.

The review should strike an appropriate balance between “leading indicators” and outcome measures. The following are examples of the former:

- The number of individuals diagnosed and treated with sleeping disorders
- The number of individuals who self-report fatigue when at work.

Obviously, attention should also be paid to outcomes and these will involve the usual measures such as:

- a. Incident / Accident rates
- b. Near misses and safety-critical events
- c. Equipment damage
- d. Feedback from employees
- e. Absenteeism
- f. Staff turnover

9. PART D: IMPLEMENTATION PLAN

9.1 Implementation Plan 2017 – 2020

OBJECTIVE	ACTION	RESOURCES	OUTCOME MEASURES	NOTES	WHEN
1. Ensure senior management understands and commits to the Fatigue Management Plan	<ul style="list-style-type: none"> Brief site senior Managers on <ul style="list-style-type: none"> approach process timeline resources / budget Address concerns Agree Fatigue management plan	<ul style="list-style-type: none"> Senior Management team time (ASPASA) 	Senior management approve plan and process	This is an essential first step to ensure <ul style="list-style-type: none"> a common understanding of ; <ul style="list-style-type: none"> the causes of Fatigue the solutions to Fatigue the potential costs / benefits senior management support 	As soon as possible. This should occur prior to proceeding with other actions.
2. Establish Fatigue Committee to form part of the Health & Safety structures	<ul style="list-style-type: none"> Select Committee members Educate Committee to ensure a common understanding of; <ul style="list-style-type: none"> the causes of Fatigue the solutions to Fatigue Agree terms of reference, resources, time frame etc. 	<ul style="list-style-type: none"> ASPASA 	<ul style="list-style-type: none"> Establishment agenda of Fatigue Committee meetings Agreement as to process Allocation of responsibilities and tasks Agreement on timeline 	Senior management needs to determine the composition of this group. Ideally it should represent a cross section of individuals on the site. Members according to DMR COP	
3. Ensure that there is an appropriate policy and procedural framework to manage Fatigue.	<ul style="list-style-type: none"> Draft Fatigue Management policy / plan and procedures Obtain management sign off 	<ul style="list-style-type: none"> Health & Safety Committee ASPASA 	<ul style="list-style-type: none"> Policy agreed Procedures developed 	These can be adapted from work done by other organisations	This should commence as soon as possible following formation of Committee.
4.1 Ensure employees have the knowledge, skills and attitudes to manage their own and others Fatigue	<ul style="list-style-type: none"> Conduct Fatigue education programme Carry out individual Fatigue profiles Carry out Fatigue survey 	<ul style="list-style-type: none"> Educational materials 	<ul style="list-style-type: none"> Feedback from employees Number of employees self-reporting Fatigue Number of employees identified as high risk Number self-referring for assistance 	<ul style="list-style-type: none"> Maximum session size of 20 employees. Will provide data to inform process and gain support from workforce. 	As soon as possible. This does not need to wait for the development of a policy and procedures
4.2 Ensure employees at high risk of					

Fatigue are identified					
5. Ensure Supervisors have the knowledge, skills and attitudes to appropriately manage Fatigue	<ul style="list-style-type: none"> • Conduct initial supervisor training sessions • Develop action list to improve supervisor management of Fatigue on shift 		<ul style="list-style-type: none"> • Number of Fatigue “referrals” made by Supervisors • Feedback from employees 	Supervisors need to attend the employee education session prior to this training.	<ul style="list-style-type: none"> • Following employee education sessions (which they need to attend). • Ongoing
6. Pre-employment and annual assessments	<ul style="list-style-type: none"> • Conduct pre-employment screenings on Fatigue • Assessing all employees annually for Fatigue (sleep disorders) 	<ul style="list-style-type: none"> • Occupational Health 	<ul style="list-style-type: none"> • Number of assessments done 		Ongoing
7. Ensure assistance is available for individuals with Fatigue and sleep problems	<ul style="list-style-type: none"> • Referral of employees with problems to better sleep programme • Assessment of incidents, accidents and fatalities • Identify sources of expert medical assistance 	<ul style="list-style-type: none"> • Medical referral process 	<ul style="list-style-type: none"> • Number of individuals provided with appropriate help 	Establish appropriate referral source for medical issues.	Ongoing
8. Encourage employees to develop personal action plan / commitment to manage Fatigue	<ul style="list-style-type: none"> • Conduct follow up employee based meeting • Train Supervisors to follow up commitments at toolbox meetings etc. 	<ul style="list-style-type: none"> • Safety Officers 	<ul style="list-style-type: none"> • Number of employees participating • Number of action plans developed • Number of commitments carried out 	<ul style="list-style-type: none"> • Can also use this session to provide survey feedback to employees • BSS Africa can train G/R staff to assist in this process. 	After employee education sessions
9. Ensure family support for shift workers	<ul style="list-style-type: none"> • Conduct a/hours Fatigue sessions for families 	<ul style="list-style-type: none"> • Safety Officers 	<ul style="list-style-type: none"> • Number of family members participating 		After employee education sessions
10. Ensure rosters are appropriately designed and conform to relevant standards	<ul style="list-style-type: none"> • Conduct desktop audit / review of all rosters on site <ul style="list-style-type: none"> - Cycle lengths - Hours of work - Rotation - Start/finish times - Breaks within / between shifts etc. 	<ul style="list-style-type: none"> • Health & Safety Committee 	<ul style="list-style-type: none"> • Number of rosters reviewed • Changes made to rosters 		As soon as possible. Does not depend on other tasks.
11. Identify ways to reduce exposure to Fatigue	<ul style="list-style-type: none"> • Identify ways to reduce number of individuals working at night (e.g. all planned maintenance during day) 	<ul style="list-style-type: none"> • Site staff • Employee input at tool box meetings 	<ul style="list-style-type: none"> • Number of positions transferred to day work • Adherence to procedures 	Note: The site could consider implementing a “strategic napping” policy as there is considerable research on the efficiency of power naps as a fatigue control strategy.	As soon as possible. Does not depend on other tasks.

	<ul style="list-style-type: none"> • Establish procedures to cope with 00:00-06:00 Fatigue 				
12. Ensure contractors are aware of SITE requirements to Manage Fatigue	<ul style="list-style-type: none"> • Conduct information session for contractors representatives • Provide written statement of requirements • Establish reporting requirements and audit schedule 	<ul style="list-style-type: none"> • Responsible site Managers 	<ul style="list-style-type: none"> • Level of contractor compliance • Level of fatigue related incidents 		As soon as possible. Does not depend on other tasks.

9.2 Compliance with the Code of Practice

- All Line Managers are responsible for implementation and ensuring compliance to this COP and / or portions thereof.
- The Fatigue Management Committee will receive reports on a monthly basis and audit compliance according to Annexure F.
- OHSAS 18001:2007 annual audit
- Daily safety officers risk assessments

9.3 Access to this Code of Practice and related documents

- This completed COP and related documents is readily available on the Intranet and the original signed copies at Secretarial Services.
- When this COP is revised, it will be published on the Intranet and will be made available to all relevant managers.
- This registered trade union have access to all COP's via the Intranet, but will be provided with a controlled copy upon written request to the General Manager. A register will be kept of such persons or institutions with copies to facilitate updating of such copies.

ANNEXURE A: Shift Systems and Rostering (Fss)

Characteristic	Risk levels: residential	1 Risk levels: camp based	2 Explanation
Does roster contain night work?	<ul style="list-style-type: none"> No = Lower risk Yes = Higher risk 	<ul style="list-style-type: none"> No = Lower risk Yes = Higher risk 	<p>Night work contains a greater risk of fatigue for two reasons. These area:</p> <ul style="list-style-type: none"> Maintain alertness at night is difficult due to the fact that bodily changes occur at night to prepare for sleep. Daytime sleep when on night shift is shorter and less restful than their normal night time sleep. This is due to the fact that humans are a diurnal (day awake, night sleeping) species and our circadian rhythms¹ make day sleep difficult. <p>In summary, the more night work involved, the greater the likely build-up of fatigue.</p>
Daily work hours	<ul style="list-style-type: none"> Low risk: up to 10 Moderate risk: >10 to 12 High risk >12 	<ul style="list-style-type: none"> Low risk: up to 10 Moderate risk: >10 to 12 High risk >12 	<p>These issues are addressed together as they both relate to the time an employee has away from work to attend to his or her other responsibilities and prepare for and obtain an adequate amount of sleep. The various codes of practice recommend a maximum time away from home of 13 hours. The reasons behind this are that most individuals:</p> <ul style="list-style-type: none"> require an average of 8 hours sleep per night; and need at least 3 hours at home to attend to their personal and family needs and obtain the required sleep. <p>This latter point is because individuals need approximately one hour to get up, get ready and eat before leaving for work and at least two hours for their family and to prepare for sleep². Another issue is that many individuals find it hard to get to sleep in the early to mid-evening, as this is a period of high alertness when initiating sleep is difficult. This means that long shifts, especially when combined with a lengthy daily commute to work, can mean that employees have insufficient time at home to obtain adequate sleep.</p>
Daily work hours and work related travel	<ul style="list-style-type: none"> Lower risk: up to 11 Moderate risk: >11 to 13 Higher risk: >13 	<ul style="list-style-type: none"> Lower risk: up to 11 Moderate risk: >11 to 13 Higher risk: >13 	
Average weekly hours across the roster cycle	<ul style="list-style-type: none"> Lower risk: up to 42 Moderate risk: >42 to 48 Higher risk: >48 	<ul style="list-style-type: none"> Lower risk: up to 48 Moderate risk: >48 to 56 Higher risk: >56 	<p>2.1.1 These measures provide an indication of a roster's "intensity". The more hours worked in any period, the greater the potential for fatigue as an individual has fewer hours each day or week away from work to attend to his or her domestic and family responsibilities and obtain sleep. (Most individuals will sacrifice sleep time to attend to family and personal needs.) There are different criteria for residential and employees who live in camp because the latter have fewer demands on their time (domestic and travelling) and therefore can work more hours in roster cycle.</p>
Total hours over 3 month period	<ul style="list-style-type: none"> Lower risk: Up to 546 Moderate risk: >546 to 624 Higher risk: >624 	<ul style="list-style-type: none"> Lower risk: Up to 624 Moderate risk: Up to 728 Higher risk: >728 	
Scheduling of work	<ul style="list-style-type: none"> Lower risk: Regular & predictable 	<ul style="list-style-type: none"> Lower risk: Regular & predictable 	<p>Irregular demands make it harder for an employee to prepare for work and are likely to result in more fatigue.</p>

¹ The key circadian factors making sleep easy or difficult are:

- Core body temperature – this starts decreasing from about 37 to 36 degrees Centigrade about a half hour prior to a person's normal sleep time. It stays low during the night and starts to return to normal about half an hour before awakening. A falling / rising core body temperature is a very powerful sleep / alertness signal.
- Melatonin – this is a hormone that promotes sleep onset and maintenance. It starts to increase in the late evening, peaks around 2 or 3 am and thereafter declines.
- Light levels – falling light levels trigger sleep and rising light levels raise alertness.

² For most individuals, two hours is the minimum required to shower, have a meal, spend time on family and domestic responsibilities and wind down so that they can fall asleep. In general family and domestic demands are reduced when living in camp and allow more time for the required "winding down" that precedes sleep. Where individuals regularly have less than 11 hours at home, many will sacrifice sleep time to attend to these other needs.

	<ul style="list-style-type: none"> Higher risk: Irregular & unpredictable 	<ul style="list-style-type: none"> Higher risk: Irregular & unpredictable 	
Rotation direction	<ul style="list-style-type: none"> Days to nights – lower risk Nights to days – higher risk 	<ul style="list-style-type: none"> Days to nights – lower risk Nights to days – higher risk 	Rotating days to nights is recommended as such forward rotation causes less fatigue. This is because adapting to a “longer” day is easier than a “shorter” one.
Recommended start time - day shift	<ul style="list-style-type: none"> Lower risk: 0600 or later Higher risk: before 0600 	<ul style="list-style-type: none"> Lower risk: 0600 or later Higher risk: before 0600 	The earlier a person has to wake, the earlier he has to go to bed the previous evening in order to obtain sufficient sleep. However many individuals find it hard to get to sleep mid evening (that is between 7-9 pm) and this can result in a shorter sleep. The other reason and early waking causes fatigue is sleep inertia. This is a groggy, disorientated feeling that is caused by awakening circadian rhythms are still in a sleep state (e.g., core body temperature is low and melatonin level is high).
Recommended finish time – night shift	<ul style="list-style-type: none"> Lower risk: 0700 or earlier Higher risk: after 0700 	<ul style="list-style-type: none"> Lower risk: 0700 or earlier Higher risk: after 0700 	Finishing night shift too late means an individual will get home when both environmental conditions (heat and light) and bodily conditions (body temperature is low and melatonin level is high) making getting to sleep difficult.
Recommended maximum number of sequential night shifts	<ul style="list-style-type: none"> 8 hr shifts – 6 10 hr shifts – 5 12 hr shifts – 4 	<ul style="list-style-type: none"> 8 hr shifts – 7 10 hr shifts – 7 12 hr shifts – 6 	<p>Waking is more difficult than sleeping at night and often results in a shorter and less restful sleep. Even a small loss of sleep each night can build up to a significant sleep debt over an extended number of nights. Day sleeping is particularly difficult when living at home during the work cycle due to a number of factors including:</p> <ul style="list-style-type: none"> Other people in the house during sleeping time; Increased family and domestic responsibilities competing for sleep time; and More external disturbances (dogs barking, neighbors mowing lawns etc) <p>The larger the number of consecutive night shifts the larger the potential sleep debt that builds up. This is why the codes typically recommend a lower number of consecutive 12-hour night shifts in residential locations than for camp based environment.</p>
Recommended maximum number of sequential shifts	<ul style="list-style-type: none"> Lower risk - up to 7 Moderate risk - 8 – 10 Higher risk - >10 	<ul style="list-style-type: none"> Lower risk - up to 10 Moderate risk - 11 – 14 Higher risk - >14 	Workdays can mean that individuals have difficulty finding the required 8 hours for sleep each day. Over a short roster (e.g., 3 or 4 days) this is manageable as it leads only to a small buildup of sleep debt. Over a large number of consecutive shifts it can result in a large sleep debt and high levels of fatigue. The codes recommend a lower number of consecutive shifts in residential locations than for camp based environment.
Breaks in shift (Number breaks / total length of breaks)	Shift length	Day shifts	Night shifts
	8 hrs	1 / 30	2 / 45 mins
	10 hrs	2 / 45 mins	2 / 60 mins
12 hrs	2 / 60 mins	2 / 60 mins	
Break following night shift	<ul style="list-style-type: none"> ➤ 24 hours – moderate risk ➤ 48 hours – low risk 	<ul style="list-style-type: none"> ➤ 24 hours – moderate risk ➤ 48 hours – low risk 	In general individuals need at two nights to fully recover from night shift and re-adapt to being awake during the day.

ANNEXURE B: Ergonomics, Environmental and Work Factors (F_{EW})

Exposure to environmental stressors, physical strain and work stress plays an important role in the development of fatigue. To assess the fatigue risks caused by these factors, they should be examined in detail.

Risk assessment of environmental and work factors

FACTOR	CONSIDERATION
Task related factors	
Repetitive or monotonous work.	<ul style="list-style-type: none"> • Eliminate boring, repetitive jobs. • Improve communication. • Provide training to allow multi-skilling and effective job rotation. • Use alarms and monitors, particularly for solo work, e.g. driving vehicles. • Provide suitable resources. • Ensure adequate breaks during shifts.
Sustained physical or mental effort.	<ul style="list-style-type: none"> • Eliminate sources of risks that might exacerbate Fatigue, e.g. lack of job control, manual handling, and extreme temperatures. • Improve communication processes. • Improve the duration and timing of work. • Roster enough employees during peak times and demands.
Complex physical or mental tasks.	<ul style="list-style-type: none"> • Allow Supervisors and workers to reschedule tasks if Fatigue becomes a problem. • Ensure safe and efficient shift hand-over. • Use alarms and monitors, particularly for solo work, e.g. driving vehicles.
Work environment factors	
Excessive commuting times necessary.	<ul style="list-style-type: none"> • Start work at long distance commute sites on the day AFTER arrival and start travel home on the day AFTER the shift cycle is finished. • Assist with travel arrangements, e.g. provide transport.
Stress.	<ul style="list-style-type: none"> • Improve job control and the other risk factors associated with stress. • Improve communication.
Adverse working conditions.	<ul style="list-style-type: none"> • Control exposure to hazardous substances and environments. • Provide effective protective clothing and equipment, allowing for different shifts. • Use heating and cooling to control ambient temperatures to support alertness.

ANNEXURE C: Personal Factors (F_{PF})

1. FATIGUE IMPAIRMENT

The Fatigue Impairment: Supervisor's Guidelines are designed as a framework for a step by-step process for making decisions about fatigue impairment and the most appropriate Supervisory response. The guidelines should not be seen as a definitive measure, but rather as a guide to conversation.

STEP 1: RECOGNISE FATIGUE PROBLEMS

Observation:

The first step is to formalize what you have noticed about the person's functioning or behaviour. While most of us have an intuitive sense for when a person is tired, this simple checklist asks us to take specific notice of some of the known symptoms of Fatigue. It is worthwhile going through the checklist and checking the appropriate boxes. If the person exhibits three or more of the typical symptoms of Fatigue or very marked symptoms in anyone or two areas, proceed to Step 2.

NO	Signs and Symptoms	Yes	NO
1	What can be observed about this persons functioning /behaviour?		
1.1	Is there a significant change in the person's behaviour?		
1.2	In what area has there been a change?		
2.	Physical Symptoms		
2.1	Eyes bloodshot		
2.2	Slower movements		
2.3	Poor co-ordination		
2.4	Slower than normal response time, e.g. response to radio contact		
3.	Cognitive Functioning		
3.1	Distracted from task		
3.2	Poor concentration / lapses in concentration		
3.3	Doesn't complete tasks		
3.4	Short-term memory loss (forgets instructions)		
3.5	Nodding-off momentarily		
3.6	Fixed gaze and / or reports blurred vision		
4	Emotion / Motivation		
4.1	Seems depressed		
4.2	Irritable		
4.3	Doesn't care anymore		
4.4	Easily frustrated		

If 3 or more indicators of Fatigue are present, proceed to STEP 2

STEP 2: MAKE THE PERSON SAFE: RISK

The second step is to estimate the degree of risk associated with what you have observed. Risk depends on the likelihood and severity of the consequences of the person's functioning / behaviour.

There will be many factors that will influence your estimate of risk for this person in his / her situation. Having gained a sense of the level of risk involved, you must ask the question, "Is this an acceptable level of risk?" If you conclude that the risk is beyond an acceptable level, proceed to Step 3.

No	Risk Factor	Yes	NO
1	Has a Fatigue-related incident occurred?		
2	Has the person (self-report / by another person) been identified as at Fatigue risk?		
3	Is there a risk associated with the person's functioning / Behaviour? (i.e. risk to self, others or equipment)		
3.1	If yes, what is the level of risk? (Your best estimate)	High	Medium Low

If any of the of the of the answers in Step 2 is yes and/or the risk level is medium or high, then proceed to Step 3

STEP 3: ENSURING THAT THE ISSUES IS APPROPRIATELY ASSESSED

CONVERSATIONS

The third step is to engage the individual in conversation about his / her fatigue risk. It is important for you to clearly state what you have observed and your estimate of the risk involved, and the reasons for your estimate of the risk involved. Does the person have an explanation for what you observed? Supervisors only have to recognise that a fatigue problem MIGHT exist and with any problem, the first step is to understand the risks the situation poses both to the individual and the organisation.

An appropriate assessment will usually require referring the person to a doctor, psychologist or other health professional with expertise in assessing fitness for work issues.

The company's medical or EAP providers are a good starting point. The outcome should be a written report that provides the company with an assessment of the problem and its potential impact on the person's fitness for work.

STEP 4: DEVELOPE A FATIGUE PLAN, MONITOR AND EVALUATE PROGRESS

No	Supervisory Action Decision	Yes	No
		Where Applicable	
1	Supervisor Risk Appreciation		
1	What is the level of risk associated with this person's continuing without intervention?	High	Med Low
2	If that risk is unacceptable, what steps need to be taken to minimise the immediate risk?		
2.1	Task rotation option	Yes	No
2.2	Short break option	Yes	No
2.3	Go home option	Yes	No
3			

3.1	Has this person been associated with previous Fatigue issues?	Yes	No
4	Follow-up actions to be implemented		
4.1	First occasion – deal with it informally, but record incident	Yes	No
4.2	Incident report completed	Yes	No
4.3	PIVOT Incident No.		
4.4	Training in Fatigue Management completed	Yes	No
4.5	Referred to EAP	Yes	No
5.	Additional follow-up considerations		
5.1	What additional action(s) do you need to take?		
5.2	Does disciplinary action apply?	Yes	No
5.3	Is the person demonstrating an inability to manage Fatigue?	Yes	No
5.4	Do employees need additional information on Fatigue Management or referral to the EAP?	Yes	No
5.5	If Yes to 5.4, what information is required or were employees referred to EAP		
5.6	Do you need to involve someone else in the decision?	Yes	No
5.7	If Yes to 5.6, who did you involve to assist?		

An effective plan should:

- Ensure the immediate safety problem is addressed. This means that the employee will not attend work when he / she demonstrate that they are fit for work.
- Provide appropriate strategies to manage and treat the underlying issues that have caused the person to be unfit for work.
- Provide an effective means of monitoring both the person's fitness for work and their progress in addressing the issue.
- Provide and assurance that the employee will notify the company of any reoccurrence of the problem BEFORE attending work.

2. PERSONAL FATIGUE CHECKLIST

The purpose of the Personal Fatigue Checklist is for you to review how you are feeling before starting your shift. You can use this to rate your own personal risk of fatigue or if you doubt of your ability to perform safely.

Rating		Low	Moderate	High
How much sleep did you have in the last ...	24 hours	7 or more hrs	6 to 7	Less than 6
	48 hours	More than 14 hrs	12-14 hrs	Less than 12 hrs
How many hours will you be awake by the end of the shift?		Less than 14 hrs	14-16 hrs	More than 16 hrs
How many alcoholic drinks have you had in the last 12 hours?	Males	0- 4	5- 6	More than 6
	Females	0-2	3- 4	More than 4
Are you taking medication or other substances that may affect your FFW?		No		Yes or Not applicable
Did you have an afternoon sleep before first night shift?		Yes		No
Are there any other health or personal factors that are affecting your fitness for work?		Yes		No
Do you feel rested and focused on the job? (Rate yourself on the Alertness Scale below)		1 or 2	3	4 or 5
ACTION		Self-monitor	Refer to Mod-Risk strategies	Contact leader to discuss

ALERTNESS SCALE			
Description	Signs	Rating	
Highly alert	Feel active, energetic, wide awake, attentive to surroundings, good coordination	1	<input type="checkbox"/>
Alert	Function well but not quite at peak (see above)	2	<input type="checkbox"/>
Mildly fatigued	Awake but not energetic or fully alert. Respond to things as required but requires an effort. Prefer to relax rather than be active.	3	<input type="checkbox"/>
Fatigued	Eyes tired, difficulty focusing, irritable, trouble understanding complex instructions, clumsy, unmotivated, errors in speech	4	<input type="checkbox"/>
Very Fatigued	Long eye blinks, head nodding forward, fighting sleep, difficult to have conversation, forget what you are trying to say, want to be left alone and lie down, strong desire to sleep.	5	<input type="checkbox"/>

Assessment	Action
All "Low"	Continue to monitor your personal levels of fatigue.
One or more "Moderate"	You are showing some early signs of fatigue – you should consider using some of the risk strategies below and continue to monitor your fatigue. If start feeling sleepy, yawning a lot or find it hard to concentrate you should stop work and talk to your leader.
One or more "High"	You are potentially showing signs of fatigue – talk to your leader about your fatigue checklist before commencing your shift.

ANNEXURE D: Review of Accidents or Incident Reports

VARIABLE NAME	DROP DOWN MENU OPTIONS	NOTES
1. Business Unit		
2. Incident Number		
3. Incident outcome	<ol style="list-style-type: none"> 1. Near miss 2. Minor damage to environment / equipment 3. Major damage to environment / equipment 4. Medically treated injury 5. Lost time injury 6. Disabling injury 7. Fatality 8. Multiple fatality 	
4. Site		<ul style="list-style-type: none"> • The purpose of this item is to identify the physical location of the incident or accident. • These locations are the site of the actual incident NOT the part of ASPASA where the person works for or is visiting.
5. Operational area	<ol style="list-style-type: none"> 1. 2. 	
6. First name		
7. Family Name		
8. Gender	<ol style="list-style-type: none"> 1. Female 2. Male 3. Not specified 	
9. Date of birth		
10. Age at time of incident		
11. Home location		
12. Marital status	<ol style="list-style-type: none"> 1. Single (no partner last 12 months) 2. Partnered 3. Separated/divorced last 12 months 4. Not specified 	
13. Employment status	<ol style="list-style-type: none"> 1. Employee 	
14. Travel status	<ol style="list-style-type: none"> 1. 2. 	
15. Roster worked	<ol style="list-style-type: none"> 1. 2. 	<ul style="list-style-type: none"> • This is an important item but could have many responses
16. Shift length	<ol style="list-style-type: none"> 1. >12.5 hours (e.g., supervisor) 2. 12.5 hours 3. 12 hours 4. 10 hours 5. 8 hours 6. Other 7. Not specified 	
17. Date and time of incident		
18. Shift in roster cycle	<ol style="list-style-type: none"> 1. Day shift 1 2. Day shift 2 3. Day shift 3 4. Day shift 4 5. Day shift 5 6. Day shift 6 7. Day shift 7 	<ul style="list-style-type: none"> • I assume that (for most rosters) there will be no more than 7 night shifts.

	8. Day shift 8 9. Day shift 9 10. Day shift 10 11. Day shift 11 12. Day shift 12 13. Day shift 13 14. Day shift 14 15. Night shift 1 16. Night shift 2 17. Night shift 3 18. Night shift 4 19. Night shift 5 20. Night shift 6 21. Night shift 7 22. Night shift 8 or more 23. Travel to site day 24. Travel home day 25. Not specified	
19. Date and time of work before incident		
20. Hours awake at time of incident		
21. Hours of sleep in last 24 hours		To be estimated in discussion with person and entered as number of hours to the nearest 15 minutes e.g., 7.25.
22. Hours of sleep in last 48 hours		To be estimated in discussion with person and entered as number of hours to the nearest 15 minutes e.g., 12.50.
23. Hours awake-hours of sleep in last 48 hours		
24. Sleeping problems	1. Yes 2. No 3. No information	
25. Day sleeping problems	1. Yes 2. No	Enter number of hours less sleep person typically gets when on night shift versus when on day shift / days off.
26. Work stress	1. Yes 2. No	
27. Personal stress	1. Yes 2. No	
28. Caffeine drinks in last 24 hours		Enter number from person's self-report.
29. Alcoholic drinks in last 24 hours		Enter number from person's self-report.
30. BAC test result		Enter BAC reading (or "not tested")
31. Drug test result	1. Not tested 2. Tested - no positive results 3. Amphetamine/Methamphetamine 4. Barbiturates 5. Benzodiazepines 6. Cannabis 7. Cocaine 8. Opiates 9. Synthetic cannabis 10. More than 1 of above	
32. Medications in last 48 hours	1. None 2. Sedating antihistamines 3. OTC painkillers 4. OTC sleeping preparations 5. Depression 6. Anxiety 7. More than 1 of above	OTC = over the counter

33. Sleeping accommodation problems	<ol style="list-style-type: none"> 1. Nil 2. Heat 3. Light 4. Noise 5. More than 1 of above 6. No information 	
34. Evidence of alertness loss at time of accident	<ol style="list-style-type: none"> 1. No 2. Yes 3. No information 	<ul style="list-style-type: none"> • Need to provide criteria here. • As assessed by incident investigation
35. Shift work management skills	<ol style="list-style-type: none"> 1. Does not work nights 2. Poor 3. OK 4. Good 5. No information 	<ul style="list-style-type: none"> • Use assessment from Fatigue Management Workbook?
36. Person's self-rating of alertness at time of incident	<ol style="list-style-type: none"> 1. Poor 2. OK 3. Good 4. Excellent 5. No information 	<ul style="list-style-type: none"> • Use alertness assessment scale (BSS to supply)?

ANNEXURE E: ANNUAL MEDICAL FATIGUE RISK ASSESSMENT

1. Are you taking any regular medications?

YES	NO
-----	----

Please List: _____

2. How often do you use sleeping medications or other drugs to get to sleep (incl. Alcohol)

Number of Times	Never	2 – 3 times / year	1 times / year	2 times / month	3 times / month	1 time / week	2 times / week	3 times / week	4 times / week
-----------------	-------	--------------------------	-------------------	-----------------------	-----------------------	------------------	-------------------	-------------------	-------------------

3. Do you take any medications to help you stay awake?

Seldom, if ever	Occasionally	Fairly Often	Every day
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Please List: _____

4. How many caffeine drinks do you drink per day incl. coffee, tea and Coca-Cola?

MALES:

Number of caffeine drinks	0	1	2	3	4	5	6	7	8 o more
------------------------------	---	---	---	---	---	---	---	---	-------------

FEMALES:

Number of caffeine drinks	0	1	2	3	4	5	6 o more
---------------------------	---	---	---	---	---	---	----------

5. Please answer the following questions related to your drinking pattern in the last 12 months:

Mark YES or NO as appropriate to each question:

- 5.1 Have you had weight or medical problems that are related to drinking? Yes / No
- 5.2 Has your doctor advised you to cut down on your drinking? Yes / No
- 5.3 Have you noticed your hands shake after a night of drinking? Yes / No
- 5.4 Have you had arguments with your family about your drinking? Yes / No
- 5.5 Have you got into any serious arguments or fights as a result of drinking? Yes / No
- 5.6 Have you been asked to leave a hotel or social function, etc, because you were drunk? Yes / No
- 5.7 Have you had any financial problems due to your drinking? Yes / No
- 5.8 Have you missed work more than once because of drinking? Yes / No
- 5.9 Have you had an accident at work or while driving due to your drinking? Yes / No
- 5.10 Have you had performance or disciplinary problems at work due to drinking? Yes / No
- 5.11 MALES: On any 10 occasions have you drunk more than 12 standard drinks?
 9 cans of full strength beer of 6 double spirits, or the equivalent? Yes / No
 FEMALES: On any 10 occasions, have you drunk more than 8 standard drink
 6 cans of dull strength beer of 4 double spirits, or the equivalent? Yes / No
- 5.12 Have you had a drink in the morning to cure a hangover? Yes / No
- 5.13 Do you often think about drinking? Yes / No
- 5.14 Have you tried to cut down but found difficulty in doing so? Yes / No

Number of 'yes' responses	0	1	2	3	4	5
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If more than 3 yes responses need further assessment and treatment

6. INSOMNIA:

Mark TRUE or FALSE as appropriate to each question:

- 6.1 I think about a lot of things and find it hard to fall asleep at night. True / False
- 6.2 I wake up during the night and have difficulty getting back to sleep. True / False
- 6.3 I sometimes wake up 3 or 4 times during the night. True / False
- 6.4 I often wake up earlier than I would like to. True / False
- 6.5 I often feel depressed, OR I am often irritable. True / False

Number of "Trues"	0	1	2	3	4	5
-------------------	---	---	---	---	---	---

If more than 3 trues, refer for treatment

7. OBSTRUCTIVE SLEEP APNOEA

Mark TRUE or FALSE as appropriate to each question:

- | | | |
|-----|--|--------------|
| 7.1 | I snore most times when I am sleeping. | True / False |
| 7.2 | I have been told that I stop breathing when I am asleep. | True / False |
| 7.3 | Sometimes my heart pounds or beats irregularly during the night. | True / False |
| 7.4 | I often have a headache in the morning. | True / False |
| 7.5 | Sometimes I choke or gasp for breath in my sleep. | True / False |

Number of "Trues"	0	1	2	3	4	5
-------------------	---	---	---	---	---	---

If more than 3 trues, refer for sleep assessment

8. GASTROESOPHAGEAL REFLUX

Mark TRUE or FALSE as appropriate to each question.

- | | | |
|-----|--|--------------|
| 8.1 | I wake up during the night with indigestion. | True / False |
| 8.2 | I have to use antacids once or more a week for my upset stomach. | True / False |
| 8.3 | I wake up at night coughing or wheezing. | True / False |
| 8.4 | I often have a sore throat in the morning. | True / False |
| 8.5 | I wake up with acid in my mouth. | True / False |

Number of "Trues"	0	1	2	3	4	5
-------------------	---	---	---	---	---	---

If more than 3 trues, refer for assessment and medical treatment

9. RESTLESS LEG SYNDROME

Mark TRUE or FALSE as appropriate to each question.

- | | | |
|-----|--|--------------|
| 9.1 | I have "creeping, crawling or uncomfortable, difficult to describe feelings in the legs or arms that stop me getting to sleep.
(These are usually worse at night and are relieved by moving or rubbing) | True / False |
| 9.2 | I have been told that I move or kick in my sleep. | True / False |
| 9.3 | Sometimes parts of my body jerk. | True / False |
| 9.4 | I often have leg pain during the night. | True / False |
| 9.5 | Sometimes I must move my legs in bed at night – I cannot keep them still. | True / False |

Number of "Trues"	0	1	2	3	4	5
-------------------	---	---	---	---	---	---

If more than 3 trues, refer for assessment and medical treatment

10. SHIFT

10.1 Length of Shift

8 hours	10 hours	12 hours
---------	----------	----------

10.2 Do you work over-time?

Yes	No
-----	----

10.3 Do you work night shift?

Yes	No
-----	----

10.4 My total daily travel time (to and from work) is:

1 – 20 minutes	21 – 35 minutes	36 – 50 minutes	50 – 60 minutes	>60 minutes
1	2	3	4	5

11. My accommodation is good for sleeping:

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
1	2	3	4	5

12. TIME IN BED

Fill out the following table for the amount of time you spend in bed on your”

1. Days off
2. Days at work, and
3. Night at work, if you are a shift worker.

To do this you should write down:

1. The usual time you go to bed,
2. The usual time you get out of bed,
3. The amount of time in bed, and

Don't worry if you do not sleep all of the time you are in bed – we are interested in if you are spending enough time in bed each day.

12.1 DAYS OFF:

SLEEP BEHAVIOUR	AMOUNT
I go to bed at ...	
I get up at ...	
I am in bed for this many hours...	

12.2 DAY SHIFT:

SLEEP BEHAVIOUR	AMOUNT
I go to bed at ...	
I get up at ...	
I am in bed for this many hours...	

12.3 NIGHT SHIFT:

SLEEP BEHAVIOUR	AMOUNT
I go to bed at ...	
I get up at ...	
I am in bed for this many hours...	

13. HOW TIRED ARE YOU?

Circle the number that best describes how you have been over the last 2 months.

	Never	Sometimes	Quite Often	Frequently
1. Do you fall asleep in front of the TV?	1	2	3	4
2. Are you irritable at home or at work?	1	2	3	4
3. Do you fall asleep when you are a passenger on long journeys?	1	2	3	4
4. Do you sleep more on your days off work?	1	2	3	4
5. Does your partner (or other family members) complain that you do not want to do anything on your days off?	1	2	3	4
6. Do you wake up feeling tired?	1	2	3	4
7. Do you feel tired and have difficulty concentrating during the day?	1	2	3	4
8. Do you have to make an effort to do the things you previously enjoyed?	1	2	3	4

Add Q1 – Q8 for your total score	
---	--

	Low Fatigue	Moderate Fatigue	High Fatigue
TOTAL SCORE	8 - 10	11 - 18	19 - 32

14. How many times do you exercise or is physically active for at least 30 minutes per week?

Number of times	5 or more	4	3	2	1	0
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DATE: _____

NAME OF EMPLOYEE: _____

CONTACT TELEPHONE NUMBER: _____

PROFESSIONAL NURSE SIGNATURE: _____

COMMENTS:

REFERRAL FOR FURTHER ASSESSMENTS:

LOW RISK	MODERATE RISK	HIGH RISK
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ANNEXURE F: MEMBERS OF DRAFTING COMMITTEE

	NAME	POSITION / ROLE	QUALITIFICATIONS	MINING EXPERIENCE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

ANNEXURE G: MEMBERS OF THE FATIGUE MANAGEMENT COMMITTEE

	NAME	POSITION / ROLE	QUALITIFICATIONS	MINING EXPERIENCE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

ANNEXURE H: DRAFT FATIGUE POLICY AND PROCEDURES

Organization Name:

1.0 PURPOSE

The **Organization Name** has a duty of care ensure that all individuals are alert and fit for work whilst on its sites or whilst undertaking activities on its behalf. This policy outlines the responsibilities of all such individuals and provides procedures to reduce and address the causes of fatigue and to deal effectively and appropriately with individuals who may be unfit for work due to fatigue.

2.0 SCOPE

2.1 Application to sites and individuals

This policy applies to all individuals whilst on the **Organization Name's** sites or whilst carrying out activities on the **Organization Name's** behalf. This includes employees, contractors and visitors.

2.2 Objectives

The aim of the policy is to ensure a safe working environment by;

- (i) ensuring that whilst at work or undertaking activities on the **Organization Name's** behalf employees, contractors and other individuals are alert and not suffering from the impairing effects of fatigue;
- (ii) ensuring that the **Organization Name** meets its obligations to employees, contractors and to the general public to carry out all its activities safely;
- (iii) providing assistance through a range of preventative, educational and rehabilitative measures to address fatigue related problems that could impair individuals' fitness for work; and,
- (iv) ensuring that all employees who are deemed unfit for work as a result of fatigue and related issues are dealt with in an effective, fair and constructive manner.

3.0 FITNESS FOR WORK AND FATIGUE

"Fit for work" means that an individual is in a state (physical, mental and emotional) which enables the employee to perform assigned tasks competently and in a manner which does not compromise or threaten the safety or health of themselves or others. An individual may be unfit for work for a variety of reasons including the adverse effects of fatigue, stress, alcohol or other drugs and a range of physical and mental health issues. Final determination of "Fit for Work" is based on the opinion of the principal employer, Manager or Supervisor.

4.0 REFERENCES

4.1 Interfaces with other systems and policies

This policy should be read in conjunction with the following **Organization Name** policies and procedures and relevant legislation and standards.

4.1.1 Other **Organization Name** systems and policies

- (i) **Organization Name** Safety Management System and associated policies and procedures
- (ii) **Organization Name** Fit for Work Policy
- (iii) **Organization Name** Human Resources policies and procedures

4.1.2 Interfaces with legislation and standards

- (i) Relevant Mines Safety and or Occupational Health and Safety legislation.
- (ii) Mine Health and Safety Act, 1996 (Act No 29 of 1996) Guideline for a mandatory Code of Practice for risk-based fatigue management at a mine.
- (iii) Mine Health and Safety Act, 1996 (Act No 29 of 1996) Guideline for a mandatory Code of Practice on the minimum standards of Fitness to perform on a mine.

4.2 Precedence

4.2.1 Organization Name policies and procedures

The Fatigue Policy's requirements will prevail over any inconsistency with other Organization Name policies or procedures.

4.2.2 Legislation and Standards

The Fatigue Policy is subject to the requirements and procedures of any legislation and standards of the state, territory or country of individual operations.

5.0 RESPONSIBILITIES OF ORGANIZATION NAME EMPLOYEES

Individuals have the following specific requirements of under the Fatigue Policy.

5.1 Senior site manager (SSM)

The SSM is responsible for ensuring the adoption and implementation of the policy. This includes;

5.1.1 Site wide implementation and management

The SSM will ensure that the policy is appropriately implemented on site to ensure that;

- employees are informed of the risks associated with fatigue and are able to participate in controlling these risks;
- the design and implementation of rosters, shifts and procedures minimises the causes of fatigue;
- hours worked by all individuals on site are monitored to prevent excessive time being worked;
- appropriate education and training on fatigue is provided to all employees and other individuals on site;
- supervisors and managers receive appropriate training in understanding and managing fatigue;
- appropriate medical and counselling resources are provided to assist individuals suffering from fatigue;
- appropriate surveillance is carried out to monitor and prevent excessive exposure to workplace contaminants such as noise and hazardous substances;
- the application and effectiveness of this policy and its associated measures are regularly monitored;
- individuals who seek assistance will not be disadvantaged and that their employment rights will be safeguarded; and,
- appropriate procedures and facilities are established to ensure that sensitive medical and other personal information with respect to this policy is kept confidential.

5.1.2 Provision of resources.

The SSM will ensure that adequate resources are allocated for the education, training, counselling and other requirements of the policy throughout the site's operations.

5.2 Managers and supervisors

Managers and supervisors have responsibility for the health, safety and welfare of all individuals under their control. Specific responsibilities under the policy include;

5.2.1 Fostering active cooperation with the policy

Managers and supervisors will manage this policy in a way that encourages individuals to bring up concerns about their own or other individuals' level of fatigue and other issues that may impair their fitness for work.

5.2.2 Assessing fitness for work

Managers and supervisors are responsible for assessing the fatigue levels and fitness for work of individuals under their control, at the start of and throughout the work period.

5.2.3 Action required when an individual is fatigued and not fit for work.

Managers and supervisors are responsible for taking prompt and appropriate action whenever they believe an individual is fatigued and not capable of working in a safe and effective manner. This includes;

- (i) isolating the individual from the workplace and any potential hazards;
- (ii) ensuring his or her safe return to their accommodation;
- (iii) documenting all occasions when an individual is not fit for work or when performance is affected or unsatisfactory as a result of fatigue;
- (iv) providing effective feedback to the individual about their fatigue levels and their performance or safety;
- (v) assisting the individual to access appropriate medical and counselling assistance to address any issues causing fatigue; and,
- (vi) ensuring that the employee has appropriately addressed and resolved any issues causing fatigue prior to returning to work.

5.2.4 Minimising the impact of fatigue

Managers and supervisors will ensure that all practical steps are taken to minimise fatigue and its effects. This will include;

- (i) accessing education on the effects of fatigue, especially its effects on alertness and performance;
- (ii) obtaining the skills to assess fatigue and using their authority to direct fatigued individuals to leave the work place;
- (iii) reassessing work requirements to allow extra time for tasks when individuals are likely to be sleep deprived or fatigued;
- (iv) providing written instructions and other checking procedures to counteract the impairment caused by fatigue on short term memory and verbal communication;

- (v) rescheduling (where possible) easy, short, interesting tasks to times when individuals are most likely to be affected by fatigue; and,
- (vi) modifying the physical environment to reduce the impact of fatigue (e.g., using bright lighting to stimulate alertness).

5.3 Employees

Each employee is responsible to ensure their own safety and health at work and to avoid adversely affecting the health and safety of any other person. In order to fulfil this responsibility, each individual has the following obligations.

5.3.1 Reporting for work in a fit condition.

Employees are expected to arrive at work sufficiently rested to be able to safely perform their duties for the duration of the work period. This will include;

- ensuring that they obtain adequate sleep to prevent fatigue (this is especially important for shift workers who should actively plan to obtain adequate rest);
- ensuring that their activities outside working hours do not compromise their capacity to work safely and effectively; and
- exercising particular care to prevent fatigue at critical times such as returning to site, shift change and commuting.

If the employee reports for work and believes they are not sufficiently rested to commence duties, they must report the fact to their supervisor.

5.3.2 Notification of any actual or potential impairment of fitness for work

Employees must notify their immediate Manager of any concerns about or potential impairment of their fitness for work due to fatigue or any other issue. This includes;

- notifying the **Organization Name** of any commitments (other jobs, hobbies, study, excessive commuting time etc.) which may cause them to be fatigued (the Senior Site Manager will assess the potential impact of this on their ability to comply with the requirements of this procedure); and
- informing their supervisor if at any time during the shift they become too fatigued to work safely.

5.3.3 Appropriate use of medication.

Employees must ensure that any prescription or non-prescription medication that could cause fatigue is taken safely. This requires individuals to;

- (i) Discuss with the prescribing medical practitioner the nature of their duties and any possible impact of the medication on their safety or performance at work.
- (ii) Notify their immediate manager or the site medical staff of any medication that could affect their safety or performance at work.
- (iii) Take medication strictly in accordance with their doctor's instructions or the manufacturer's recommendations.
- (iv) Report any side effects to their doctor and to advise their immediate manager or the site medical staff of their concerns.

5.3.4 Notification of breaches of the Policy

All individuals must notify their immediate Manager or Supervisor of any situation in which this Policy may have been breached. This includes any situation in which the other individuals may be fatigued and unfit for work or any other apparent breach of the Policy.

All such information will be dealt with in confidence in accordance with the procedure below on confidentiality.

6.0 PROCEDURES

The following **Organization Name** programs and procedures exist to support the Fatigue Policy.

- i Pre-employment and ongoing assessment of individuals' potential for fatigue.
- ii Employee and supervisor training.
- iii Assistance for individuals with fatigue problems.
- iv Out of hours' responses/ call outs
- v Shift and roster design and management.
- vi Management of contractors
- vii Management of employees who are fatigued at work
- viii Confidentiality of personal information.
- ix Data collection and policy review.

SUPPORTING PROCEDURES & PROGRAMS

1. PRE-EMPLOYMENT AND ONGOING ASSESSMENT OF INDIVIDUALS' POTENTIAL FOR FATIGUE

Applicants for or employees in safety sensitive positions (including those that involve shift work) should be periodically assessed to determine their risk factors for and capacity to cope with fatigue. These include;

(l) Potential assessment factors

- **Physiological factors**

These determine an individual's innate tolerance for circadian disruption. Key indicators include;

- degree of flexibility in sleep times,
- capacity to sleep during the day (including the ability to nap), and,
- ability to overcome drowsiness.

- **Health / physical status**

Chronic illnesses or other medical conditions typically reduce a person's capacity to cope with shift work. These include such things as diabetes, epilepsy etc., chronic pain or any limiting physical conditions or injuries.

- **Sleeping disorders**

Common sleeping disorders include insomnia, sleep apnea, narcolepsy, gastroesophageal reflux, restless leg syndrome and so on.

Simple surveys can give a useful indicator as to the likelihood that an individual has a sleeping disorder and any such individual should be referred for appropriate specialist assessment.

- **Age**

After 40, more individuals experience increased problems with shift work due to physiological changes and increased prevalence of sleeping difficulties.

- **Family and social commitments**

The demands made by family and social circumstances also impact on the capacity to manage shift work successfully. Some factors include, young children, sick family members and so on.

- **Motivation and personal management**

Key determinants of this include;

- the individual's commitment and job satisfaction;
- diet;
- personal discipline;
- appropriate management of alertness when working at night rather than excessive reliance on caffeine; and,
- capacity to sleep well (especially when on night shift).

The latter two can generally be improved by appropriate education and sleep hygiene training.

- **Outside commitments**

Outside commitments such as second jobs, demanding hobbies or study may significantly contribute to fatigue levels.

- **Alcohol and other drug use**

AOD usage patterns also impacts on a person's capacity to make an effective adjustment to shift work. Common substances that are (when abused) associated with sleep problems include;

- alcohol,
- cannabis,

- sleeping medication; and,
- stimulants (caffeine, nicotine, amphetamines etc.).
- **Previous work history**
Where possible, the assessment process should include and take into account an applicant's or employee's past record in successfully managing hazardous or shift work.
- **General issues**
Given the demands of hazardous work or shift work the following are also potentially important
 - capacity to understand written English;
 - capacity to take direction / follow instruction; and,
- capacity to work safely with minimal supervision.

2. EMPLOYEE EDUCATION AND SUPERVISOR TRAINING PROGRAMS

To ensure that they have the knowledge and skills to minimise and manage fatigue, all individuals regularly working on the site should be provided with the education and training necessary to understand and manage the causes of fatigue.

(i) Employee education

The employee education programme should include information on;

- signs of fatigue in themselves and others,
- risks involved in working in a fatigued state,
- common risk factors for fatigue,
- causes of fatigue, particularly the disruption to the body caused by working at night,
- signs of common sleep disorders,
- the impact of inappropriate alcohol or other drugs on sleeping and fatigue,
- ways to improve their sleep,
- the impact of shift work on family life,
- strategies to address situations where there is an increased risk of fatigue, and,
- sources of help to address any causes of fatigue.

These training programmes should;

- be carried out by a trainer with an expert understanding and knowledge of sleeping, shift work and fatigue issues, and,
- provide appropriate opportunity for employees to evaluate their own level of fatigue and risk factors and seek information about their specific issues.

(ii) Supervisor training

In addition to the above, supervisors and managers should receive training in managing fatigue including;

- an understanding of relevant industry standards and guidelines,
- key organisational strategies for managing fatigue,
- the impact of shift and rosters patterns on individuals' fatigue levels,
- encouraging employees to notify when they or others are fatigued,
- strategies to assess and monitor employees' fatigue levels both in specific circumstances and on an ongoing basis,

- assisting fatigued individuals access appropriate assistance for fatigue issues,
- managing specific situations (such as call outs, shut downs etc.) where there is a high potential for fatigue,
- effectively managing employees with ongoing fatigue issues,
- assessing the possible contribution of fatigue in incidents and accidents, and
- ensuring contractors manage fatigue appropriately.

(iii) Induction of new employees

As part of the induction process, new employees will be made aware of **Organization Name's** Fatigue Policy and procedures through the following means:

- An explanation of the policy will be provided to all new employees as part of the induction process. This will include a summary of the policy and associated procedures which set out;
 - a brief overview emphasizing both the **Organization Name's** and the individual's responsibilities,
 - the policy's emphasis on education, assistance and constructive disciplinary processes, and,
 - the availability of assistance to address fatigue;
- All new employees will be provided with a full induction into the Fatigue Policy within 3 months of commencing and this will include appropriate education in managing fatigue.

(iv) Induction of new managers and supervisors

As part of their induction and training, new Managers and Supervisors will be provided with appropriate training to ensure that they have the knowledge, skills and attitudes to manage their own and others' fatigue.

3. ASSISTANCE FOR EMPLOYEES WITH FATIGUE PROBLEMS

The site will ensure that all individuals have access to a confidential and professional assistance to address and resolve work and personal issues that might cause fatigue. This will require the site to establish appropriate medical and psychological providers with specific expertise in this area. In addition, these providers will also advise and support managers and supervisors in dealing with employees with fatigue and other fitness for work problems.

4. OUT OF HOURS RESPONSES

Sites will ensure that procedures are in place to minimise the requirement for individuals to respond out of their normal work hours and to assess the fitness for work of individuals who are required to undertake such responses. This will include;

(i) Prior preparation

- **Establishing an out of hours' response roster**
Managers will establish an "on call" roster to respond to unplanned, after hours' requirements.
- **Establishing alternatives for emergency situations**
Managers will identify alternative individuals (e.g., local contractors) who can be used for urgent after hour responses when the site's own employees are unavailable or unfit. Managers will ensure appropriate induction and briefing for these individuals so that they are available at short notice.
- **Minimising the need for out of hours' responses**

Managers will take all appropriate action (e.g., preventative maintenance) in sensitive areas to reduce the need for out of hours' responses.

- **Providing advance notice of likely out of hours' responses**

Where it is known that an out of hours' response is likely, Managers will notify individuals as far ahead as possible to allow them to modify their behaviour to ensure their fitness for work (minimise alcohol consumption, obtain adequate rest etc.)

- **Informing employee of their responsibilities**

Managers will provide employees required to respond out of hours with information on;

- their responsibility to ensure that they are fit for work during their time on roster (including their requirements to be rested and not under the influence of alcohol or other substances), and,
- their responsibility to inform the person who calls them in of any possible threat to their fitness for work.

(ii) Risk assessment

- **General requirements**

Managers or supervisors deciding to bring an individual in to attend to an out of hours' situation will assess;

- the threat of a serious or fatal injury if the situation is not attended to;
- the risk to the safety of the individual asked to respond; and,
- the financial cost to the organisation of delaying a response to the situation.

The Manager or Supervisor will evaluate the comparative risks and benefits of allowing the individual to carry out the task versus the consequences of waiting until he is fit for work under the Fit for Work Policy.

As an example, a Supervisor or Manager may have to bring an individual onto the site who may not satisfy the sites fitness for work requirements if he or she is the only person capable of addressing a situation that would otherwise result in a serious injury or fatality.

- **Assessing the severity of the risk**

In assessing the level of risk posed by an event, Supervisors or Managers will be guided by the risk classification process included in site's Safety Management System

- **Assessing individuals' fitness for work**

The Site Managers will establish a procedure to assess the fitness for work of individuals required to work outside their normal hours. This will include the following questioning the individual to determine if he or she has,

- consumed any alcohol or other substances in the preceding 24 hours,
- had any disturbance to or reduction in the amount of sleep in the preceding 48 hours,
- any other factor that may render him or her unfit for work.

The Manager or Supervisor will consider these factors individually and in combination in determining an individual's fitness for work. They will also

- an individual's decision if he believe that he is not fit to undertake the required task.
- conduct a breath alcohol test if there is any possibility of the individual having a positive blood alcohol reading (NB: Individuals unexpectedly called out after hours will not be subject to any penalty if they test positive for alcohol.)

(iii) Making the decision

Where an individual's fitness for work is compromised for any reason (e.g., fatigue, substance use, mental state etc.), the manager or supervisor will assess the relative risks before deciding on a course of action. In such situations, every effort, consistent with the urgency of the situation, should be made to discuss the proposed action with a senior manager or other appropriate individuals (e.g., nurse, medical practitioner etc.)

In all such cases, the manager or supervisor should ensure that precautions are taken to minimize the risk including;

- if possible, having a fit for work employee carry out the tasks under the person's instructions;
- ensuring that the individual undertakes only those tasks necessary to avert the risk; and,
- at all times the Manager or Supervisor will keep the individual under his observation and direct control.

5. SHIFT AND ROSTER DESIGN AND MANAGEMENT

(iii) Shift and roster design

Roster evaluation and design is a complex process and may require specialist advice. An effective roster needs to take into account;

- the business needs;
- occupational health and safety considerations; and,
- employees' needs and preferences.

Managers will ensure that all rosters (including contractors') conform to the following basic guidelines

- The minimum time away from work each day must be sufficient to allow employees the opportunity to sleep for six (6) consecutive hours. In practise this will require at least 10 hours away from site to allow for travelling, meals and preparation.)
- Employees must have at least 2 nights of unrestricted sleep on a regular (weekly) basis.
- Employees must have a break of 48 hrs non-working time after night shift before resuming on day shift.
- There should be an upper limit of 14 hours of work scheduled per day but an individual should not work more than one consecutive 14-hour day (the following day should be less than 14 hours).
- Breaks during each shift should be on a regular basis but not less than as set out below.

Shift length	Number of breaks	Minimum total break time
8 hours	1	45 minutes
10 hours	1	60 minutes
12 hours	1	60 minutes

- Start / finish times should be between 06:00-07:00 and 18:00-19:00.
- As a rule, where employees work both days and nights in a cycle, they should return to days and swing to nights. Where 8-hour shifts are worked, rotation should be in a clockwise direction.
- Where proposed or existing rosters do not comply with these requirements, an appropriate risk assessment involving a recognised fatigue expert must be undertaken. This review shall consider the availability and adequacy of strategies to mitigate any additional risks. The site manager will review these findings and approve the roster prior to implementation.

Other requirements include:

- Managers must be aware of and take account of an individual's total commuting time in assessing the potential of a shift or roster to cause fatigue.
- Rosters should provide for flexibility (e.g., swapping shifts) to allow shift employees to meet family and other obligations.

(iv) Monitoring of hours worked

The **Organization Name** will establish procedures to monitor hours worked and ensure that individuals have adequate opportunity for rest.

(iv) Monitoring of exposures to other hazards

The **Organization Name** will establish procedures to ensure that individuals are not exposed to excessive hazards such as noise, noxious substances etc. as a result of working extended hours or compressed work cycles.

6. MANAGEMENT OF CONTRACTORS

The **Organization Name** will ensure that all contractors comply with their obligation to actively manage their employees' fitness for work (including fatigue levels) whilst on the Organization Name's sites. In order to do this the **Organization Name** will implement the following procedures.

(i) Identification of contractors on site

Site managers will establish a register of all organisations who carry out activities on the site's behalf.

(ii) Information to be provided to contractors

Prior to commencing work on the site, the responsible managers will provide contractors with the following information;

- Written information on the site's Fitness for Work and Fatigue Policies.
- A written statement detailing;
 - the contractor's obligations,
 - procedures to measure and evaluate compliance, and,
 - the consequences of failure to comply.

(iii) Requirements of contractors

Site Managers will establish the following requirements of contractors;

- **Large, long term contractors**

These contractors will be required to;

- establish their own fitness for work and fatigue policies with requirements at least to the same standard as the site's;
- establish appropriate sources of assistance for employees with fatigue problems;
- conduct appropriate education and training programs for all their employees on the site;
- conduct their own fatigue assessment program; and,
- establish appropriate management procedures for employees who with fatigue employees.

- **Large short term contractors**

These contractors will be required to;

- have their own Fit for Work and fatigue policies;

- ensure all employees on the site are inducted and educated prior to entry to site;
- conduct appropriate fitness for work whilst on site;
- inform employees that they may be subject to the site Fit for Work program; and,
- remove individuals who are unfit for work from the site.

- **Small, long term contractors**

These include single and small contractors who cannot reasonably be expected to develop and implement a full fitness for work program. Where they spend the majority of time working for **Organization Name** the site will provide access at no cost to education and training. They will also be subject to the site's assessment and management procedures.

- **Small, short term contractors**

These include single and small contractors who cannot reasonably be expected to develop and implement a full fitness for work program. Managers will inform them prior to entry that they are subject to **Organization Name's** procedures and will be immediately removed from site if they breach the policy.

(iv) Tenders and contracts

Managers and corporate staff preparing tenders and contracts will include formal requirements for potential contractors to demonstrate their capacity to manage their employees' fitness for work.

(v) Verification

Site Managers will verify that contractors are meeting obligations under the Fatigue Policy by;

- requiring contractors to collect data and report on their management of fatigue; and,
- conducting reviews and audits of the contractor's procedures and practises in this area.

7. MANAGEMENT OF EMPLOYEES WHO ARE FATIGUED AT WORK

(i) Individuals who are fatigued at the commencement of the working period

Where a manager or supervisor believes that an individual may be fatigued at the start of shift, they will assess the situation and decide;

- if the individual is to be allowed to,
 - remain at work doing their normal duties, or,
 - be removed from their duties but perform other useful work, or,
 - be stood down and sent home for the rest of the shift.
- if the fatigue is a result of,
 - the individual's deliberate decisions or behaviour, or
 - factors outside the individual's control (e.g., difficulty sleeping during the day).

The supervisor will also

- record the incident through the appropriate process,
- take appropriate action which may include referral for assistance or appropriate disciplinary counselling.

Where the supervisor is aware of repeated occurrences of such behaviour, he or she should refer the individual to the appropriate manager for assessment and action.

(ii) Managing individuals who become unfit for work during the course of a work period

Where an individual becomes fatigued during a working period, the supervisor will; ensure that the individual is immediately isolated from the workplace and prevented from driving a vehicle or operating any machinery until an assessment has been made.

The supervisor will consider the specific circumstances of the situation and consider action such as:

- continue at work with increased supervision or assistance from a co-worker,
- a rest break of appropriate duration at a location away from the workplace,
- allocation to other, non-safety sensitive duties,
- removal from the workplace and transport back to his or her accommodation.

The supervisor will also;

- attempt to determine if the fatigue is a result of,
 - the individual's deliberate decisions or behaviour, or,
 - factors outside the individual's control (e.g., difficulty sleeping during the day).
- record the incident through the appropriate process,
- take appropriate action which may include referral for assistance or appropriate disciplinary counselling.

Where the supervisor is aware of repeated occurrence, he or she should refer the individual to the appropriate manager for assessment and action.

(iii) Counselling and Discipline Procedures

All counselling and disciplinary action taken in support of this procedure shall be carried out in accordance with the **Organization Name's** HR policies and procedures.

(iv) Protection of Job Security

Employee's promotional opportunities and job security will not be jeopardised because of voluntary notification that they are fatigued. However, if the employee is identified as being fatigued on a regular basis then the matter will be managed through the **Organization Name's** usual policies and procedures.

8. CONFIDENTIALITY OF PERSONAL INFORMATION.

The site ensures that information relating to individuals' fatigue and fitness for work is transmitted, used and stored in a confidential manner. All reasonable efforts, consistent with safety, legal requirements and common sense, must be made to maintain individuals' privacy.

9. DATA COLLECTION AND POLICY REVIEW

The Senior Site Manager will ensure that appropriate information is collected to demonstrate that the policy has been effectively implemented, managed, reviewed and adapted in the particular reporting period.

ANNEXURE I: FATIGUE MANAGEMENT POLICY STATEMENT

DRAFT FATIGUE POLICY STATEMENT

The **Organization Name** has a duty of care ensure that all individuals are alert and fit for work whilst on its sites or whilst undertaking activities on its behalf. This policy applies to all individuals whilst on the **Organization Name's** sites or whilst carrying out activities on the **Organization Name's** behalf. This includes employees, contractors and visitors. This also outlines the responsibilities of all such individuals and provides procedures to reduce and address the causes of fatigue and to deal effectively and appropriately with individuals who may be unfit for work due to fatigue.

"Fitness for work" means that an individual is in a state (physical, mental and emotional) which enables the employee to perform assigned tasks competently and in a manner which does not compromise or threaten the safety or health of themselves or others. An individual may be unfit for work for a variety of reasons including the adverse effects of fatigue, stress, alcohol or other drugs and a range of physical and mental health issues.

Objectives

The aim of the policy is to ensure a safe working environment by;

- (i) ensuring that whilst at work or undertaking activities on the **Organization Name's** behalf employees, contractors and other individuals are alert and not suffering from the impairing effects of fatigue;
- (ii) ensuring that the **Organization Name** meets its obligations to employees, contractors and to the general public to carry out all its activities safely;
- (iii) providing assistance through a range of preventative, educational and rehabilitative measures to address fatigue related problems that could impair individuals' fitness for work; and,
- (iv) ensuring that all employees who are deemed unfit for work as a result of fatigue and related issues are dealt with in an effective, fair and constructive manner.

Final determination of "Fitness for Work" is based on the opinion of the principal employer, Manager or Supervisor.