



Fatigue Risk Management Procedure

Brief description

This Procedure provides guidance on how to manage the risk of Fatigue and how to design and apply a Fatigue risk management plan.

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If you require any further information, please contact the Custodian.

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1 Terms and definitions

In this Procedure:

“Emergency Work” means a serious, unexpected or potentially dangerous situation that requires immediate action.

“Fatigue” means a state of mental and/or physical exhaustion which reduces a person’s ability to perform work safely and effectively.

“Fatigue Critical Work” means tasks identified through a risk assessment that have the potential risk of a Fatigue related error. For example: high risk licence work, work at height requiring personal fall protection, commissioning, video surveillance, sensitive data entry, driving journey for significantly greater than two hours or operating heavy machinery or equipment or safety critical work.

“Individual Fatigue Risk Assessment” means a formal fatigue risk assessment to determine an individual’s level of fatigue. Usually conducted by the individual with their Supervisor.

“Karolinska Sleepiness Scale” means scientifically validated tool for evaluating subjective sleepiness.

“Personal Fatigue Risk Likelihood Predictor” means a tool to predict fatigue levels based on the sleep-awake model as initially developed by the University of South Australia.

“Roster Fatigue Risk Likelihood Score” or “rFRLS” means an assessment conducted on a proposed or modified roster to determine the potential level of Fatigue risk to individuals who are expected to work that roster. Usually conducted by the relevant workgroup Supervisor with the GPC Representative (where relevant) and the Safety Team. Approval is given by the relevant Manager.

Terms that are capitalised and not otherwise defined in this Procedure are defined in the GPC Corporate Glossary Instruction (as listed in Appendix 1 – Related documents).

2 Introduction

2.1 Purpose

Fatigue can lead to incidents because Workers are not alert and are less able to respond to changing circumstances, thereby putting themselves and others at risk. Fatigue can also impair decision making, and therefore cause errors of judgement. As well as these immediate problems, Fatigue can lead to long-term health problems.

The Fatigue Risk Management Procedure aims to reduce the risk of a person making a Fatigue related error by providing guidance for Supervisors and GPC Representatives to ensure that individual factors that can impact on a person’s Fatigue are managed in a consistent manner to provide a safe working environment.

This Procedure describes the application of the Fatigue element of the Fit for Work Standard.

2.2 Scope

This Procedure applies to all GPC Employees. It also applies to Contractors, if the Contractor does not have their own Fatigue risk management procedures.

Given the unique demands on marine pilotage, GMPS Marine Pilots are not expected to apply this Procedure. However, they must comply with the Fatigue risk management requirements as defined in the GMPS Pilotage Operations Safety Management System.

2.3 Objectives

This Procedure aims to:

- (a) Provide guidance on how to manage the risk of Fatigue;
- (b) Describe when and how to conduct an individual fatigue risk assessment;
- (c) Provide guidance on how to design and apply fatigue risk management plans;
- (d) Provide guidance for Supervisors and GPC Representatives on how to manage a Fatigued individual.

3 Fatigue risk management

3.1 Roles and responsibilities

Role	Responsibilities
All individuals	<ul style="list-style-type: none"> • Take reasonable care for their own safety and comply with this Procedure. • Present to work in a fit for work state. • Manage their lifestyle and medical conditions to ensure they maintain their fitness for work. • Maintain their Fatigue levels so when on-call are able to present fit for work. • Self-assess personal Fatigue levels and notify their Supervisor or GPC Representative if their work performance is likely to be affected by Fatigue, or there is any risk to themselves or others due to the effects of Fatigue. • Participate in a Fatigue assessment as part of an incident investigation or as required by this Procedure.
Supervisors	<ul style="list-style-type: none"> • Consider Fatigue management when planning daily work allocation as well as scheduling for shutdown, emergency breakdown work and call out conditions. • Consider Fatigue as a potential contributing factor when conducting investigations. • Assist in the preparation, and application, of an Individual Fatigue Risk Management Plan with individuals who have identified themselves as being affected by Fatigue or showing signs of Fatigue. • Forward records of approved individual fatigue risk management plans to Human Resources Team for filing.

Role	Responsibilities
	<ul style="list-style-type: none"> • Ensure approved rosters are complied with to ensure adequate opportunity for restorative sleep is provided.
GPC Representatives	<ul style="list-style-type: none"> • Ensure that information in this Procedure and associated Fit for Work Standard are provided with contract documentation. • Advise the Contractor site manager of their requirements to comply with these documents. • Monitor Contractor compliance with roster arrangements for Contractors under their control.
Contractors	<ul style="list-style-type: none"> • Take reasonable care for their own safety and comply with this Procedure. • Contractors must follow the guidance provided in this Procedure when they do not have their own process or documentation for conducting an Individual Fatigue Risk Assessment and Risk Management Plan. • Contractors may work to their own procedures / standards, provided that they meet the minimum standards documented by GPC.
Leaders	<ul style="list-style-type: none"> • Provide leadership and commitment through the allocation of resources for the establishment, implementation, evaluation and review of the Fatigue risk management plan. • Ensure approved rosters are complied with to ensure adequate opportunity for restorative sleep is provided.
Managers	<ul style="list-style-type: none"> • Approve alternative rosters and changes to existing rosters to ensure adequate opportunity for restorative sleep is provided.
Human Resources Team	<ul style="list-style-type: none"> • Assist Supervisors to investigate the circumstances associated with individuals who repeatedly report they are Fatigued.

3.2 Identifying indicators of Fatigue

Individuals are encouraged to recognise the physical and psychological indicators of Fatigue. These indicators can include:

- desire to sleep;
- decreased motor skill;
- involuntary napping;
- irritability;

- micro-sleeps;
- reduced vigilance;
- delayed reaction times;
- decreased alertness;
- poor judgement;
- poor hand-eye coordination;
- reduced visual perception;
- degradation in physical and mental performance.

3.3 Factors that may contribute to and increase the risk of Fatigue

Safe Work Australia's Guide for Managing the Risk of Fatigue at Work provides that the following factors may contribute to and increase the risk of fatigue:

- Work schedules (shift work, night work, hours of work, breaks etc.);
- Job demands, including work which requires concentrating for extended periods of time, performing repetitious or monotonous work and performing work requiring continued physical effort;
- Sleep, noting that when Workers get less sleep than they need in a day, they build up a sleep debt which accumulates until they can get enough sleep to overcome the sleep debt. Each extra day without enough sleep increases the debt, and when it becomes large enough fatigue can occur;
- Environmental conditions, noting that working in harsh and uncomfortable conditions can contribute to fatigue, for e.g. exposure to heat, cold, vibration or noisy workplaces can make Workers tire quicker and impair performance; and
- Non-work related factors, e.g. a Worker's lifestyle, family responsibilities, health (e.g. insomnia, sleep apnoea, some medication), other work commitments, and extended travel between work and home may all increase the risk of fatigue.

3.4 Individual Fatigue risk assessments

An individual fatigue risk assessment is required to be completed by an individual Worker, in the following scenarios:

- A self-assessment of Fatigue identifies a Fatigue risk of higher than low;
- The need to offer an overtime shift is identified;
- The need to work beyond 14hrs is identified or planned;
- The need for an individual to return to work with less than a 10 hour break is identified;
- Where it is identified as a control in the individual's fatigue risk management plan;
- Where any roster dimension of an alternative roster is scored eight and that threshold value is reached;
- Work related driving significantly longer than two hours; or
- Where identified as a control for an approved alternative roster (e.g. for shutdowns).

Workers should notify their Supervisor if the risk is higher than low.

(a) Self-assessment of Fatigue

Workers are required to self-assess in the following scenarios (see Appendix 2):

- (i) Workers believe they are suffering from, and can identify symptoms of, Fatigue (self-observation);
- (ii) Workers are displaying signs of Fatigue through their actions and behaviour (observed by others – see 3.4(b) Behavioural indicators of Fatigue); or
- (iii) A Worker’s fatigue risk management plan identifies periodic self-assessment as a control measure.

The self-assessment may be recorded on the Individual fatigue risk assessment and risk management plan. This template is located on Neptune.

Workers are required to report that they are at risk of Fatigue to their Supervisor in the following scenarios (also see Appendix 2):

- (i) They have not obtained sufficient sleep prior to commencing their shift;
- (ii) If they believe they become Fatigued during the shift or prior to the commute home;
- (iii) There are personal factors influencing their ability to obtain sufficient sleep or impact on their Fatigue levels during the shift. For example – prescription or non-prescription medication, personal circumstances etc.; or
- (iv) Results of an individual fatigue risk assessment indicate Fatigue levels higher than low.

(b) Behavioural indicators of Fatigue

The Karolinska Sleepiness Scale (Figure 1) and/or the signs/symptoms Checklists (Figure 2) can be used to identify the level of Fatigue risk observed in the behaviours of individuals.

Karolinska Sleepiness Scale (KSS) score	How do you feel?
1	Extremely alert
2	Very alert
3	Alert
4	Rather alert
5	Neither alert nor sleepy
6	Some signs/symptoms of sleepiness
7	Sleepy, but no difficulty to keep awake
8	Sleepy, but some effort to keep awake
9	Very sleepy, great effort to keep awake, fighting sleep

Figure 1 - Karolinska Sleepiness Scale – a subjective behavioural indicator of potential Fatigue through self-assessment of alertness.

	Physical	Mental	Emotional / Affective
Generic	<input type="checkbox"/> Eye rubbing <input type="checkbox"/> Yawning <input type="checkbox"/> Slumped posture <input type="checkbox"/> Slow blinks	<input type="checkbox"/> Slowed reaction time <input type="checkbox"/> Reduced situational awareness <input type="checkbox"/> Poor memory <input type="checkbox"/> Distracted	<input type="checkbox"/> Irritable, easily frustrated <input type="checkbox"/> Terse communication <input type="checkbox"/> Withdrawn, un-talkative <input type="checkbox"/> Hyper-reactivity
Task Specific	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Delayed response on 2-way radio <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Figure 2 – Fatigue signs/symptoms checklist – a subjective behavioural indicator of potential Fatigue through observed symptoms by self or others.

Task specific physical, mental and emotional behaviours typical of Fatigue onset are also included in the task specific job bank for fatigue critical work.

3.5 Workers managing their own Fatigue risk

Workers are expected to manage their own Fatigue risk at work, including by way of example:

- (a) Taking scheduled breaks;
- (b) Avoiding foods and beverages that are high sugar, high fat and high salt; and
- (c) Keeping active by stretching or walking and alternating activities throughout the shift.

Outside of work, it is recommended Workers ensure:

- (a) Their sleeping environment is cool and dark;
- (b) They limit physical activity, alcohol and caffeine intake prior to trying to sleep,
- (c) They maintain good health and fitness levels; and
- (d) Ensure personal commitments do not interfere with the sleep opportunity provided between shifts (i.e. second job: refer to GPC general employment conditions as per the Employee’s letter of offer).

3.6 Planners and Supervisors managing Worker Fatigue risk

Planners and Supervisors must ensure that Fatigue related risks are considered when planning tasks and allocating work. Where possible, vary work activities throughout the shift to reduce physical and mental Fatigue to reduce the risk of Fatigue related error.

Work environments that contribute to Fatigue should be identified and controlled before and during work to minimise Worker exposure. Such work environments involve:

- (a) High noise and / or vibration;
- (b) Extremes in temperature;
- (c) High humidity;
- (d) Poor ventilation;
- (e) Poor lighting; and
- (f) Repetitive tasks and high forces/exertion.

Supervisors must monitor their team and check for signs of Fatigue throughout the shift (particularly when the tasks involve Fatigue Critical Work), and ensure that breaks are taken when scheduled.

3.7 Roster design considerations

GPC rosters

Rosters detailed in the GPC Enterprise Agreement have been compared with industry guidelines and have been generally assessed as being a limited contributing factor to the risk of Fatigue. However, an individual fatigue risk assessment is required when there is a need to operate outside of these standard rosters (e.g.: extending shifts beyond 14hrs, emergency work etc. See 3.11 “Managing Fatigue risk with rostering”) and when the roster requires a quick turnaround (i.e. less than 10hrs break).

Altering rosters

When designing or altering rosters for GPC Workers for shutdowns, turnarounds, projects and the like, the Roster Fatigue Risk Likelihood Score (rFRLS) calculator (Figure 3) must be applied to identify where the roster potentially deprives the individual of the opportunity to obtain sufficient sleep.

The rFRLS calculator is included in both the Shutdown/Project/Alternative Roster Fatigue Risk Management Plan and the individual fatigue risk assessment & risk management plan.

Roster Fatigue Risk Likelihood Score calculator						
<i>Instructions</i>						
1. Each roster dimension is given a score between 0 and 8.						
2. Calculate a Total Score by adding all of the individual risk dimension scores together.						
3. Compare the Total Score to the appropriate Roster Fatigue Risk Likelihood Score (rFRLS).						
Roster Dimension	Score					Score (1-8)
	0	1	2	4	8	
Max hours per 7 days	≤36h	37-44h	45-48h	49-55h	>55	
Shift duration	≤8h	9-10h	11-12h	13-14h	>14h	+
Short break duration	≥16h	15-12h	11-10h	9-8h	<8h	+
Max hours of night work per 7 days	0	1-8h	9-16h	17-24h	>24h	+
Long break frequency/duration	>1/7d	≤1/7d	≤1/14d	≤1/21d	≤1/28d	+

Roster Fatigue Risk Likelihood Score (rFRLS)	Total Score =				
	≤5	6-9	10-19	20-30	>30
	1 - Rare	2 - Unlikely	3 - Possible	4 - Likely	5 - Almost Certain

Figure 3 – Roster Fatigue Risk Likelihood Score calculator

The proposed or modified roster must be submitted with a Shutdown/Project/Alternative Roster Fatigue Risk Management Plan to the Safety Specialist for recommendation for approval before being submitted to the relevant Manager for final approval prior to implementation of the roster.

Rosters assessed with a rFRLS less than 10 would generally not need any specific Fatigue risk management controls, unless an individual roster dimension score is four or eight, then that roster dimension should be re-evaluated or considered for reduction or additional control if possible.

Where a roster dimension score cannot be reduced below eight, then an individual fatigue risk assessment and management plan is required once that threshold value is reached. For example: if working 6 x 10hr days, then the maximum hours per seven days is greater than 55 hours. Exceeding 55 hours is triggered on the 6th day, therefore, on the 6th day, the individual must complete an individual fatigue risk assessment with their Supervisor at the beginning of that shift. If the overall fatigue risk is higher than low, then an individual fatigue risk management plan is also required, otherwise, work can proceed without the need for additional controls.

Rosters assessed with a rFRLS of 10 or greater must have a Shutdown/Project/Alternative Roster Fatigue Risk Management Plan identifying how the Fatigue risk will be managed for the duration of the shutdown/project. The Plan must be approved by the relevant Manager accountable for the work.

Approved rosters must be kept with the relevant shutdown/project documentation for the duration of the work and filed in the document management system for future reference.

Approved rosters may be applied to future work without re-approval provided all conditions remain the same.

3.8 Predicting personal Fatigue risk likelihood (prior sleep / wake data)

Collecting information on a Worker's sleep and wake periods for the preceding 48 hours provides an assessment of Fatigue risk potential at the time of assessment. Using the Personal Fatigue Risk Likelihood Predictor, the onset of Fatigue risk in subsequent hours can be determined.

Figure 4 illustrates the manual version of the prior sleep / wake data tool used at GPC. It can be modified to indicate current Fatigue and predicted Fatigue by adjusting the values in Steps 3b and 3c to reflect either now time or the anticipated finish time.

Prior sleep / wake data must be supplied by a Worker in the following situations:

- (a) Worker informs their Supervisor that they have had insufficient sleep;
- (b) Observed behaviour or signs that could indicate a Worker is Fatigued is reported;
- (c) Prior to extending a shift or offering overtime (work opportunity is not necessarily denied, but identified Fatigue risk must be managed);
- (d) Working an alternative roster where the analysis results in any roster dimension score of eight; or

- (e) After any incident where the error that caused the incident is typical of a Fatigue related error for that task.

Personal Fatigue likelihood risk can be calculated using the tools available:

- (a) Using the PORT pocket book self-assessment insert (Figure 4); or
- (b) As part of the individual fatigue risk assessment and risk management plan; or
- (c) On using the excel based version the GPC Personal Fatigue Likelihood Predictor on Neptune.

Prior sleep / wake data					Points	
Step 1: Your sleep in the past 24 hours						
Sleep (hrs)	≤ 2	3	4	≥ 5		
Points	12	8	4	0		
Step 2: Your sleep in the past 48 hours						
Sleep (hrs)	≤ 8	9	10	11		≥12
Points	8	6	4	2		0
Step 3a: What time did you wake up?						
Step 3b: What time will you finish your shift today?						
Step 3c: How many hours you will have been awake at the end of your shift since you last woke from sleep?						
For every hour awake (3c) MORE than your sleep in the past 48 hours, add 1 point						
Step 4: Total your points to determine your score						

Figure 4 – Manual calculator for predicting a personal Fatigue likelihood score

The scale in Figure 5, provides an indicator of the expected Fatigue related behaviours, signs and symptoms associated with the calculated personal Fatigue likelihood score.

Personal fatigue likelihood score	
0	Able to perform tasks safely. Few external signs of Fatigue.
2	Slowed cognition. Occasional minor Fatigue behaviours. Minor mood changes observable.
4	Difficulty in maintaining extended concentration for complex tasks.
6	Difficulty concentrating. Occasional lapses of attention. Poor judgement on complex tasks.
8	Clear evidence of behavioural impairment. Difficulty sustaining attention on simple tasks.

10	Clear loss of motivation. Significant loss of situational awareness. Task performance impaired.
12	Struggling to stay focussed on any task. Difficulty staying awake at times. Micro-sleeps likely.

Figure 5 - Fatigue related signs, symptoms and behaviours related to the calculated predicted Fatigue likelihood score.

3.9 Calculating the overall risk of Fatigue related error

The overall risk of a Fatigue related error considers the likelihood of personal Fatigue risk from the:

- (a) Roster design,
- (b) Individual prior sleep / wake data; and
- (c) Behavioural symptoms.

The highest likelihood score from either Part A, B or C, is cross referenced with the most likely consequence of a Fatigue related error relative to the role, task or activity to determine the overall Fatigue related error risk. The risk assessment tool is available as part of the individual fatigue risk assessment illustrated in Figure 6.

Individual fatigue risk assessment									
Likelihood from Parts A-C				Overall likelihood of a Fatigue-related error	Most likely consequence of a Fatigue-related error relative to the role/task/activity				
Part A	Part B	Part C(i)	Part C (ii)		Minor (1)	Moderate (2)	Significant (3)	Major (4)	Critical (5)
Roster Analysis	Prior Sleep Wake	KSS Score	Symptoms						
>30	>12	8-9	3 in 15min	Almost Certain (5)	Medium	Medium	High	High	Extreme
20-30	9-12	6-7	2 in 15min	Likely (4)	Low	Medium	Medium	High	High
10-19	5-8	4-5	1 in 15min	Possible (3)	Low	Low	Medium	Medium	High
5-9	1-4	2-3	1 in 30min	Unlikely (2)	Very Low	Low	Low	Medium	Medium
<5	0	1	1 in 1hr	Rare (1)	Very Low	Very Low	Low	Low	Medium

Figure 6 – The overall risk of a Fatigue related error through an individual fatigue risk assessment

3.10 Individual Fatigue risk management plan

An individual fatigue risk management plan is required for the following scenarios:

- (a) The need to offer overtime is identified and the overall Fatigue risk is calculated to be higher than low;

- (b) The need to work beyond 14hrs is identified or planned;
- (c) The need for an individual to return to work with less than a 10 hour break is identified;
- (d) The results of an individual fatigue risk assessment indicate the overall Fatigue risk to be higher than low.

3.11 Managing Fatigue risk with rostering

The GPC Enterprise Agreement describes the rules with regards to extending shifts and working overtime shifts.

An individual fatigue risk assessment and risk management plan, with an emphasis on prior sleep / wake data, must be documented prior to continuing or commencing work beyond 14 hours (see also Appendix 3). The assessment and plan should be done as soon as practicable after it is identified that a person is required to work beyond 14 hours.

Any Worker who has not had a minimum of 10 hours break before returning to work must complete an individual fatigue risk assessment, and risk management plan if the risk is higher than low, prior to commencing work.

The number and type of controls for the fatigue risk management plan is determined by the individual's current and predicted Fatigue throughout the shift or extended period and the Fatigue related error risk associated with the tasks to be conducted.

See also 3.13 "Managing a Fatigued individual" and 3.14 "Fatigue risk management control options" in this Procedure.

3.12 Managing Fatigue risk for travel/commute and work related driving

Long periods of driving increase the risk of Fatigue.

(a) Travel/commute

Whilst GPC cannot dictate where a person chooses to live, Workers are informed that their commute time is a contributor to their overall level of Fatigue risk through induction, training and awareness programs provided by GPC.

Travel/commute times must be considered when assessing an individual's Fatigue risk likelihood through their prior sleep / wake data.

(b) Work related driving

Work related driving journeys significantly longer than two hours* will require the journey section of the fatigue risk management plan to be completed in addition to the rest of the plan prior to departure. In this instance, the plan should include the following information:

- (i) Estimated duration of the journey with expected departure and arrival times;
- (ii) Route to be travelled;
- (iii) Rest breaks;
- (iv) Call in procedure;
- (v) Shared driving strategy if travelling with others.

See also 3.14 “Fatigue risk management control options”.

* Note 1: It is recommended to take a 20 minute break after two hours of continuous driving, however, you must stop and rest as soon as you feel tired.

* Note 2: The usual travel time between the Port of Bundaberg and the Port of Gladstone is 2h and 34min (206.6km). A journey plan is not usually required for this travel unless requested or there is an elevated risk identified with the circumstances of the journey.

3.13 Managing a Fatigued individual

In all situations where a Worker is identified as Fatigued, or reports they are Fatigued, the Supervisor must action the following (also see Appendix 3):

- (a) Supervisor and the Fatigued Worker must complete the individual fatigue risk assessment to identify the level of Fatigue and the demands of the task/s to be conducted for the remainder of the Worker’s shift;
- (b) If the Worker is considered to be able to continue work after a break:
 - (i) Allow them to take a rest break of sufficient duration agreed by the individual and the Supervisor; and
 - (ii) Develop the individual fatigue risk management plan and continue work with the agreed controls in place.
- (c) If the Worker is considered too Fatigued to continue work then:
 - (i) The Worker will be deemed ‘unfit for duty’ and leave will be taken for the duration of the shift; and
 - (ii) The Supervisor will arrange for safe travel home.

The individual Fatigue risk assessment and risk management plan for a Fatigued Worker will be held by the Worker’s Supervisor for the current plus previous month in a secure location.

The circumstances of Workers who consistently present or are likely to continue to present ‘unfit for duty’ due to Fatigue may be referred by the Supervisor to the Human Resources Specialist, Safety Specialist or Health and Wellbeing Specialist to understand the cause and provide assistance to the Supervisor and Worker to manage appropriately.

3.14 Fatigue risk management control options

When deciding on control options for managing an individual’s Fatigue, consideration must be given to both the individual’s predicted/calculated Fatigue levels as well as the planned workload and associated Fatigue-risk.

Fatigue risk management control options may include, but are not limited to the following:

- (a) Alternate tasks;
- (b) Job rotation;
- (c) Regular breaks;
- (d) Regular movement/posture changes (e.g. Safespine) for sedentary work;

- (e) Additional controls for physical environment (see also 3.6 “Planners and Supervisors managing Worker Fatigue risk”);
- (f) Buddy system;
- (g) Regular checks from Supervisor;
- (h) Periodic self-assessment for symptoms of Fatigue onset or Fatigue related error;
- (i) Provision of safe travel home; and
- (j) Journey plan as part of the individual fatigue risk assessment and control plan.

The following actions are specifically required where the overall Fatigue related error risk is calculated to be or personal Fatigue likelihood is predicted to be:

- **Low: Look out for self:** Requires self-management and monitoring of symptoms, possibly includes task rotation.
- **Medium: Look out for others:** Worker and Supervisor develop an individual fatigue risk management plan to identify specific interventions required based on the task and associated risk. For example: self-monitoring for increased symptoms, strategic caffeine, task rotation. Buddy system may be required.
- **High: Look out:** As above, but Fatigue Critical Work such as high risk licence work, work at height requiring personal fall arrest or driving or operating heavy equipment, is not permitted.
- **Extreme: Look out:** As above and report and document. Do not engage in Fatigue Critical Work. Arrange safe passage home. Do not recommence until fit for work.

Specific controls for the individual fatigue risk management plan must be recorded in part (h) of the form.

(k) Fatigue proofing strategies

Tasks identified as having a Fatigue related error risk of medium or greater, or consequence of significant or greater, must consider Fatigue proofing strategies in their documented safe system of work. It is preferred that these tasks are re-engineered or re-designed so that if a mistake is made, the chance of resulting in an incident is significantly reduced.

These tasks must also be recorded in the Department Risk Register and flagged as Fatigue Critical Work.

3.15 Identifying and investigating Fatigue related incidents

To determine if an incident is Fatigue related, the Safety Team must be consulted.

To understand if an incident is Fatigue related there needs to be evidence that:

- (a) The Worker was likely to be Fatigued at the time of the incident; and
- (b) The error that caused the incident was typical of a Fatigue related error for that task.

Unless both conditions hold true, the incident cannot be considered to be Fatigue related.

Evidence for individual Fatigue likelihood needs to include:

- (a) 2-3 weeks of roster information leading up to the incident; and

- (b) 2-3 days of prior sleep / wake data leading up to the incident; and
- (c) Symptoms or signs of Fatigue or behavioural indicators leading up to the incident.

Evidence for typical Fatigue related error for the task may include reference to the task specific job bank.

Fatigue related incidents will be managed in accordance with the Incident Management and Investigation Procedure.

3.16 Contractor management

Supply contracts are to provide references to GPC's Fatigue management requirements in all tender and contract documentation.

GPC Representatives must be involved in the roster design and approval process for the work under their control. GPC Representatives must monitor Contractors' and port users' compliance with this Procedure and fatigue risk management plans, by conducting audits on a frequency based on the level of risk identified in the relevant fatigue management plan.

Contractors who move from a non-GPC site to a GPC site to work must comply with this Procedure and associated Fit for Work Standard.

3.17 Training

The GPC Corporate Mandatory and Job Specific Mandatory Training Matrixes define the training format and frequency for training in Fatigue management.

- (a) Any person accessing a GPC site via a GPC issued access badge must first complete the 'on-line induction' which states GPC's expectations with regards to managing Fatigue risk.
- (b) All GPC Employees must complete Fatigue management awareness training, including how to conduct an individual fatigue risk assessment.
- (c) GPC Leaders, as well as GPC Representatives, must also attend fatigue management training – a face-to-face training session delivered by the Safety Team that details how to structure alternative rosters for shutdowns and projects etc., and how to proactively manage individuals who present with Fatigue.

3.18 Breaches of the Procedure

Breaches of this Procedure must be raised as an incident in SAI360 by the Supervisor and managed as per the Incident Management and Investigation Procedure and the Managing Discipline Specification, as required.

4 Appendices

4.1 Appendix 1 – Related documents

(a) Legislation and regulation

Key relevant legislation and regulation, as amended from time to time, includes but is not limited to:

Type	Legislation/regulation
State Acts	<i>Work Health and Safety Act 2011 (Qld)</i>

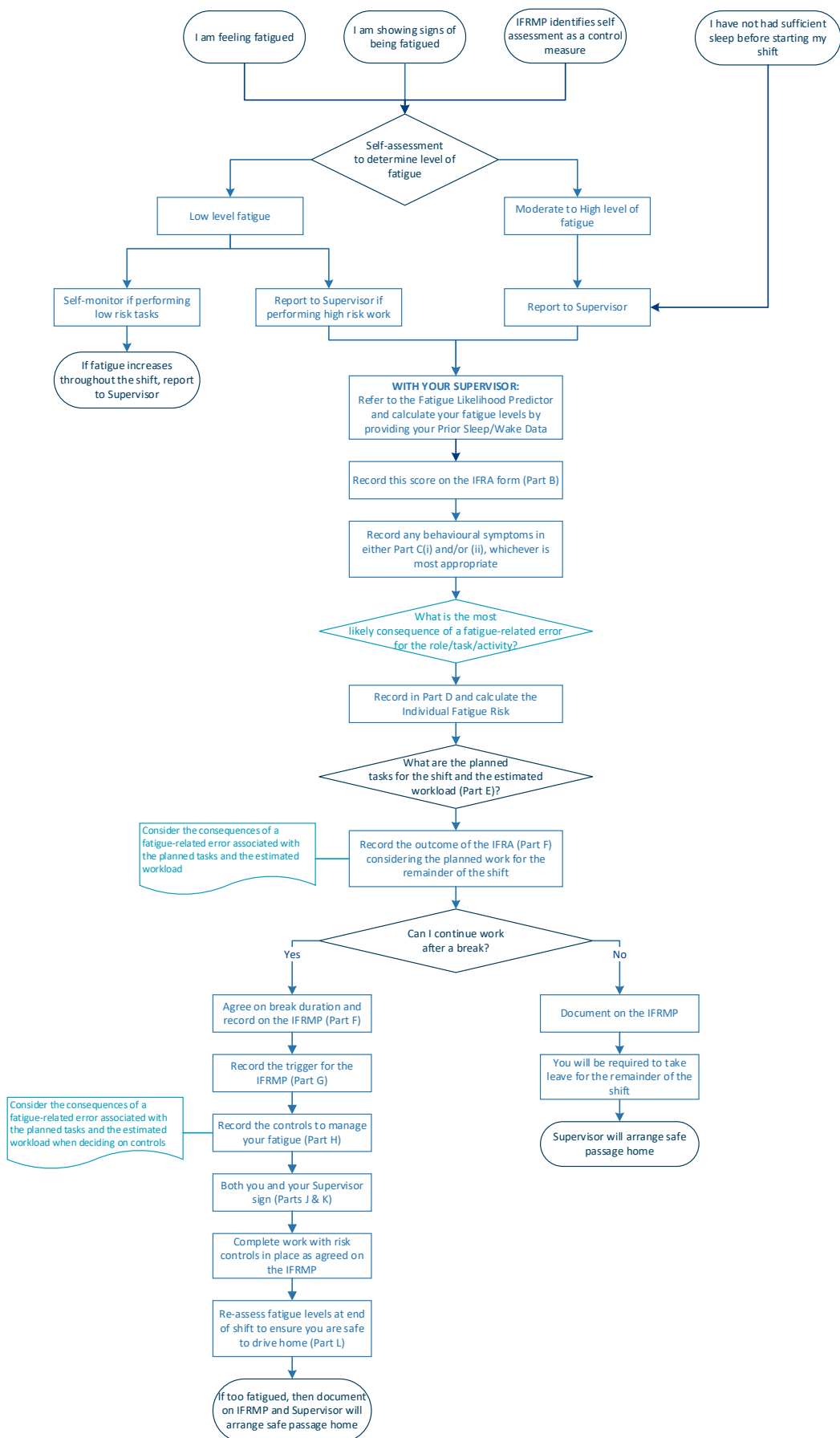
Type	Legislation/regulation
	<i>Work Health and Safety Regulations 2011 (Qld)</i>
Other	Guide for managing the risk of Fatigue at work – Safe Work Australia 2013

(b) Gladstone Ports Corporation documents

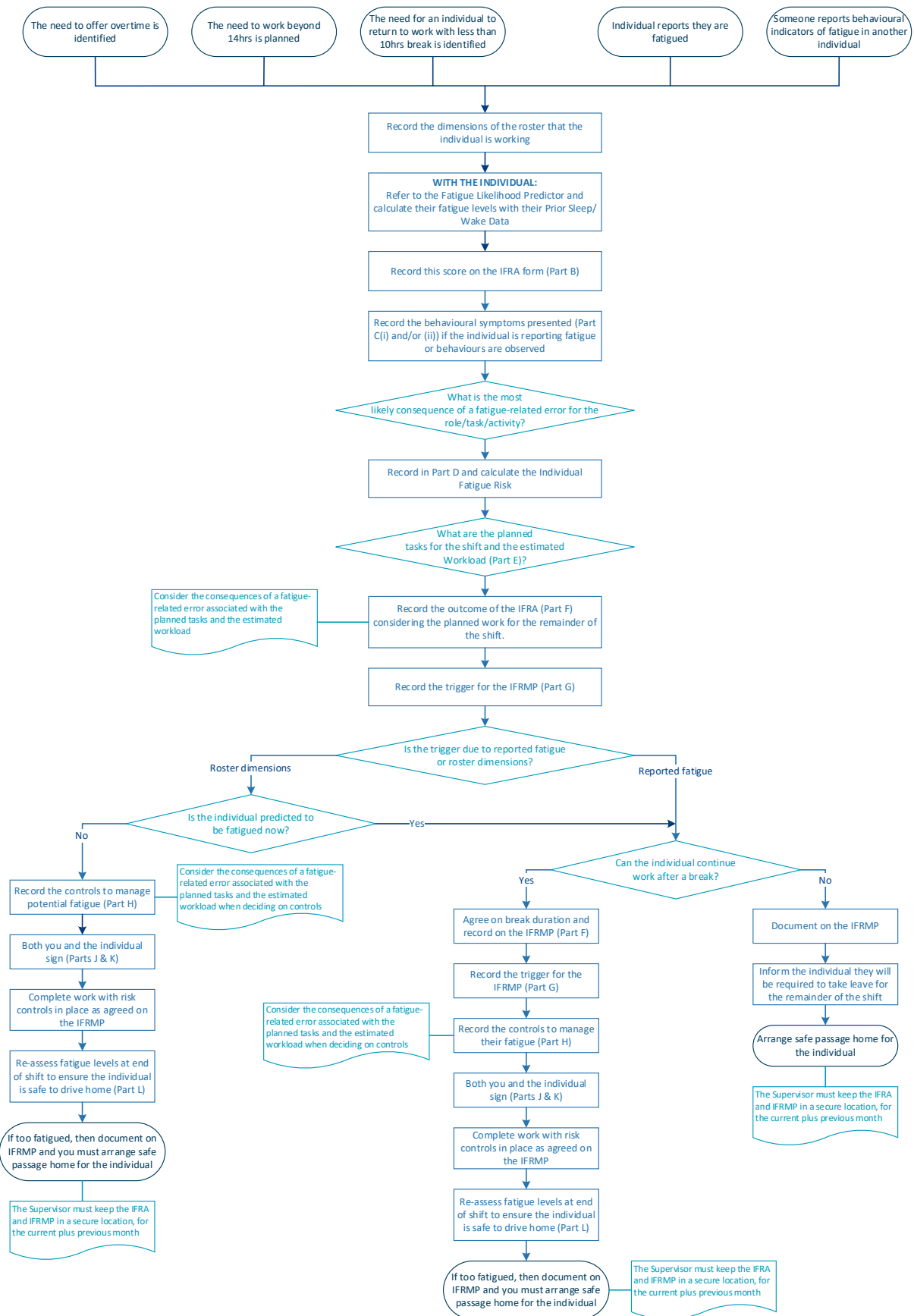
The following documents relate to this Procedure:

Type	Document number and title
Tier 1: Policy	#365624 Safety Policy
Tier 2: Standard/Strategy	#854303 Safety Management Framework Standard #1331115 Fit for Work Standard
Tier 3: Specification/ Procedure/Plan	#1075526 Incident Management and Investigation Procedure #960456 Managing Discipline Specification
Tier 4: Instruction/Form/ Template/Checklist	#1331124 Individual Fatigue Risk Assessment and Risk Management Plan Form #1331122 Shutdown/Project Fatigue Risk Management Plan Form #1302038 Personal Fatigue Likelihood Predictor Form #1621179 GPC Corporate Glossary Instruction
Other	#1393873 Procedure Flow Charts [Reference] #1414673 Fatigue Risk Management – Workers Guide [Training] #1415098 Fatigue Risk Management – Leaders Guide [Training]

4.2 Appendix 2 – Flow chart for an individual identifying and reporting Fatigue



4.3 Appendix 3 – Flow chart for a Supervisor managing Fatigue risk



4.4 Appendix 4 – Revision history

Revision date	Revision description	Author	Endorsed by	Approved by
26/06/18	Original release	Rebecca Devine, Safety Specialist	Tony Young, Safety Manager	Rowen Winsor, People Communities and Sustainability General Manager
27/09/23	Legal review and technical review – immaterial changes that do not impact intent.	Rebecca Devine, Safety & Training Specialist	Tony Young, Safety Manager	Richard Haward, EGM Safety & ESG