

SOP-14-23- Fatigue Risk Management Guidelines

1. Objectives:

To manage fatigue related risks at [REDACTED].

2. Scope:

This SOP includes various processes involved in managing fatigue of all [REDACTED] employees and contractors, and should be read in conjunction with the Mine Health and Safety Management System and SOPs which describe how work is done. This SOP provides guidelines for the control of workplace risks due to fatigue, including restriction of work hours and evaluation of risks before authorising extended work hours.

3. References:

- Health and Safety Management System Outline MP-01, 9 June 2007
- Surface Transport Management Plan MP04, part of HSMS
- Contractor Management Plan MP07 and Policy
- Drug & Alcohol Policy
- Fitness for Work Policy
- AS/NZS 4308:2001 Procedures for the collection, detection and quantitation of drugs of abuse in urine
- [REDACTED] Open Cut Operations Certified Agreement 2005
- The Coal Mine Health and Safety Regulation 2006, Part 4 Safety at Coal Operations, Division 9 Fitness for Work Program Clause 148 part 3(b) requires "a fitness for work program to be developed that must include measures to eliminate or control the risks arising from fatigue"
- DPI Guideline on Fatigue Management - March 2007

4. Definitions:

HSMS = Health & Safety Management Plan

HST Manager = Health, Safety & Training Manager

Supervisor = Mining & Maintenance Supervisor

Fatigue = is defined as a human condition caused by physical or mental exertion or sleep deprivation which results in a reduction in level of ability to perform work activities to normal acceptable standards.

5. Performance Measures & Targets:

1. There are no incidents in work activities due to fatigue.
2. Work practices comply with all Government regulations
3. Achieve a zero LTIFR at [REDACTED]

6. Procedure

Responsibility	Task	Notes
Managers, Supervisors, Employees	1 Identify and Analyse Core Fatigue Risks 	<ol style="list-style-type: none"> 1. Managers, in conjunction with employees, identify and analyse core fatigue risks associated with the [REDACTED] mining operation that have the potential to cause an incident. 2. Core fatigue related risks have been identified and classified in these groups: <ul style="list-style-type: none"> ▪ lack of awareness or understanding of fatigue as a risk ▪ working Hours, especially shift work ▪ type of Work and conditions ▪ individual employee factors; age, location of residence ▪ drugs & alcohol ▪ contractors 3. This SOP was developed by review of current research, consultation with the OHS committee, and from opinions from employees for control measures to manage fatigue 4. This SOP describes the controls in place at [REDACTED] to address these types of risks

HST Manager	2	<div style="background-color: #ffffcc; border: 1px solid green; padding: 2px; margin-bottom: 5px;">Control Fatigue Risks - Educate and Train</div> <div style="text-align: center;">▼</div>	<p>1. Familiarisation sessions are conducted from time to time for employees on fatigue management strategies at home and work. Topics may include:</p> <ul style="list-style-type: none"> ▪ legislative fatigue management obligations ▪ responsibility of employees to present themselves fit for duty at [REDACTED] ▪ declaration of medication ▪ correct use of medication that may cause drowsiness, according to instructions and in consultation with medical practitioners or qualified chemists ▪ declaration of fatigue caused outside of the workplace ▪ healthy diet and foods suitable for shiftwork ▪ sleeping arrangements ▪ exercise programs ▪ preparation and management for shift work ▪ effects of shift work and lengths of overtime shifts ▪ car pooling ▪ job rotation ▪ age factors ▪ early warning signs at work and management ▪ fresh air breaks and controlled rest breaks ▪ the responsibility of supervisors to manage fatigue
Managers OHS Consultation Work Groups	3	<div style="background-color: #ffffcc; border: 1px solid green; padding: 2px; margin-bottom: 5px;">Control Fatigue Risks - Plan and Select Work Groups</div> <div style="text-align: center;">▼</div>	<p>1. Managers plan their work groups, promote and, where practical, select people considering fatigue risk factors:</p> <ul style="list-style-type: none"> ▪ select those who are prepared to reside close to the mining operation ▪ promote and encourage the use of car pooling arrangements ▪ attempt to place people on shift with others who reside close to them ▪ consider age risk factors
Managers, Supervisors, Employees	4	<div style="background-color: #ffffcc; border: 1px solid green; padding: 2px; margin-bottom: 5px;">Control Fatigue Risks - Site Access</div> <div style="text-align: center;">▼</div>	<ol style="list-style-type: none"> 1. Management and Supervisors are responsible for fatigue management on site including control of access by people who will be engaged in work activities 2. Employees must notify their Supervisors when entering and leaving site 3. Employee hours of work must be recorded, reviewed and checked for compliance with agreed roster arrangements including shift lengths and overtime 4. Contractors engaged in work activities must swipe their card to register on the electronic contractor access management system, answer "Yes" to the question "Have you has a 10 hour break?" then report to their [REDACTED] contract coordinator prior to commencing work 5. Those contractors working in the Maintenance area must sign on to the Contractors Register located in the Maintenance department office 6. Supervisors will take action to avoid excessive work hours or non compliance with site access requirements

Managers, Supervisors, Employees	<p>5</p> <p>Control Fatigue Risks - Guidelines for maximum working hours</p> <p style="text-align: center;">▼</p>	<p>1. Use the following guidelines to control work hours per shift and the number of shifts per week:</p> <ul style="list-style-type: none"> ▪ normal shift lengths for production and engineering employees are currently 10.5 hours duration for 4 consecutive shifts ▪ normal shift lengths for engineering employees are currently 10.5 hours duration for 4 shifts within a 5 day cycle ▪ a maximum of 5 night shifts in any week ▪ a maximum of 6 day shifts in any week ▪ a maximum of 6 shifts, where both day and night shifts are worked in any week ▪ employees who work scheduled 13 hour shifts are limited to 5 consecutive shifts ▪ for all employees, weekly hours including overtime are capped at 65 maximum in any week ▪ maximum 14 hours in one shift
Managers, Supervisors, Employees	<p>6</p> <p>Assess Risks - if required to work more than the guideline maximum</p> <p style="text-align: center;">▼</p>	<p>1. Assess the risks, including the nature of tasks, before authorisation of more than the maximum allowable number of shifts per week or total hours per week</p> <p>2. If a worker is required to work beyond 14 hours, authorisation is first sought from the Supervisor, who must complete a formal risk assessment by asking, "Has the employee been:</p> <ul style="list-style-type: none"> ▪ doing heavy physical work continuously for the current shift? ▪ working more than 6 consecutive 10.5-hour shifts or 5 consecutive 13-hour shifts? ▪ performing a medium-risk task continuously for 10.5 hours? ▪ suffering from a shortage of sleep on the previous night/day? <p>3. If a worker is required to work beyond 14 hours, the Supervisor also asks "Will the employee be:</p> <ul style="list-style-type: none"> ▪ performing heavy physical work? ▪ required to carry out a medium risk task? ▪ working without reasonable supervision or observation? ▪ operating equipment? <p>4. If any of the above conditions exist, precautions must be taken, such as modifying the task to avoid continuous heavy work, high risk, continuous repetition or lack of supervision/observation</p> <p>5. If appropriate precautions cannot be taken, the employee will not be authorised to work the shift or extended hours</p>
HST, Managers, Supervisors, Employees	<p>7</p> <p>Control Fatigue Risks - Job Rotation</p> <p style="text-align: center;">▼</p>	<p>1. Management promote the culture of multi skills and job rotation to enhance the flexibility of task sharing which can assist with employees' level of alertness</p> <p>2. Typically, job rotation is effective where there are work activities that may be:</p> <ul style="list-style-type: none"> ▪ strenuous ▪ repetitive ▪ in demanding work locations ▪ hot, humid, cold environments <p>3. Rotation can be within a shift or within consecutive working days.</p> <p>4. Rotation should be arranged in consultation with immediate supervisors and work groups and a spirit of cooperation is expected of all personnel.</p>

HST Manager & all Managers	8	<div style="background-color: #ffffcc; border: 1px solid green; padding: 5px; margin-bottom: 5px;">Control Fatigue Risks - Breaks between Shifts</div> <div style="text-align: center; color: green; font-size: 24px;">▼</div>	<ol style="list-style-type: none"> 1. Department managers must approve breaks between shifts of less than ten (10) hours 2. When considering a shorter break, assess the risks, including: <ul style="list-style-type: none"> ▪ the number of previous shifts worked ▪ the previous rest periods ▪ the length of the shifts either side of the shortened break ▪ the nature of work involved ▪ the distance to and from home to be travelled ▪ any current fatigue concerns the person may have
HST Manager & all Managers	9	<div style="background-color: #ffffcc; border: 1px solid green; padding: 5px; margin-bottom: 5px;">Control Fatigue Risks - Breaks within Shifts</div> <div style="text-align: center; color: green; font-size: 24px;">▼</div>	<ol style="list-style-type: none"> 1. Meal / rest breaks are 30 minutes, to be taken by the start of 6th hour of the shift or otherwise agreed 2. Production employees are encouraged to spend time in fresh air outside of their equipment cabin 3. Where appropriate, arrange short 15 minute controlled rest breaks in allocated safe locations outside of mining areas and away from equipment work locations
All Employees, Managers & Supervisors	10	<div style="background-color: #ffffcc; border: 1px solid green; padding: 5px; margin-bottom: 5px;">Employees Present Themselves Fit to Work</div> <div style="text-align: center; color: green; font-size: 24px;">▼</div>	<ol style="list-style-type: none"> 1. It is the duty of all who work at [redacted] to present themselves for work in a condition fit for work, not suffering from fatigue, due to any reason 2. Employees need to notify their supervisor if they consider their condition is unfit to commence work
Managers, Supervisors, Employees	11	<div style="background-color: #ffffcc; border: 1px solid green; padding: 5px; margin-bottom: 5px;">Monitor Fitness for Work</div> <div style="text-align: center; color: green; font-size: 24px;">▼</div>	<ol style="list-style-type: none"> 1. At the start of each shift in the SPOT meetings for mining and maintenance crews, supervisors: <ul style="list-style-type: none"> ▪ informally assess the fitness of their people to commence work ▪ if needed, remind their people to notify their supervisor if they become tired or unfit during the shift, and there is doubt about their safety in continuing to work 2. Informal assessment includes observing employees for: <ul style="list-style-type: none"> ▪ slower physical responses, poor balance and concentration ▪ breathing or speech difficulties ▪ lack of motivation, depression or irritability ▪ breath - smell ▪ skin colour ▪ eyes condition 3. Managers and Supervisors monitor the fitness for work of their people throughout the shift, including: <ul style="list-style-type: none"> ▪ informal assessment of people showing signs of potential fatigue ▪ formal assessment of people with fatigue related symptoms using available tool 4. If they suspect an employee or contractor shows signs of fatigue related symptoms they will not assign the employee and direct them to remain under their control 5. A formal fitness for work assessment may be needed if fatigue symptoms are identified, to identify the risks present with the individual concerned. This involves: <ul style="list-style-type: none"> ▪ using the Fitness for Work Assessment Form F1404, See Appendix 1, which measures their verbal responses to a series of questions 6. If an individual has been identified not fit for work they will be removed from normal allocated duties and managed as per the Fatigue Management Guidelines. 7. The supervisor will arrange resources for the employee's safe transport back to their residence or medical facility

Personnel Officer, Supervisors	12	Manage Drug and Alcohol Testing	<ol style="list-style-type: none"> 1. The personnel officer arranges with the Drug and Alcohol testing provider to conduct testing of employees, in accordance with AS 4308:2001, which maybe: <ul style="list-style-type: none"> ▪ random and unannounced ▪ after an incident ▪ on suspicion 2. Employees onsite will be managed under the [redacted] Drug & Alcohol policy and with reference to the Decision Tree Flowchart for Drug Testing F1416 3. Results for contractors will be handed over to their employer 4. The summary of drug and alcohol testing statistics are reviewed by management to measure the program effectiveness and discussed at monthly Health and Safety committee meetings
Employees, Supervisors,	13	Report Fatigue Concerns	<ol style="list-style-type: none"> 1. Employees have a duty of care to notify their supervisor if they are experiencing fatigue related issues whilst at work. 2. Once notified, Supervisors can assist in managing the immediate effects of fatigue related conditions through early intervention 3. If the fatigue issues are ongoing employees can seek support and discuss the issue further with the [redacted] personnel officer confidentially 4. Contractor employees are encouraged to notify their [redacted] immediate supervisor and or their employer representative to discuss any fatigue related concerns 5. Fatigue related issues for reporting include: <ul style="list-style-type: none"> ▪ sleeping arrangements ▪ management of fatigue ▪ declaration of medication ▪ declaration of fatigue caused outside of the workplace ▪ illness or upset mental state ▪ personal issues
HST Manager & all Managers	14	Contractors Follow Fatigue Management Procedure ▼	<ol style="list-style-type: none"> 1. All contractors must comply with this [redacted] fatigue management procedure, including working hours, breaks, and monitoring of fatigue by [redacted] Supervisors. 2. At induction, contractors are educated on site fitness for work, fatigue management and drug and alcohol policy and procedure 3. Inducted contractors will swipe the STAX contractor register and will only access site if they agree they have had a 10 hour break prior to entry 4. Department manager must raise any fatigue related issue and corrective actions taken, at the daily managers meeting safety section or refer to HST Manager. The matter is to be documented.
HST Manager, Supervisor	15	Use of Contractors Outside Current Induction Arrangement ▼	<ol style="list-style-type: none"> 1. For use of new contractors in situations outside the induction standard , the Supervisors will: <ul style="list-style-type: none"> ▪ Check current induction status for Site Access Induction ▪ Photo copy details of minimum Generic Open Cut induction or equivalent approved by [redacted] HST department, and a faxed copy of the [redacted] site specific induction booking form, confirming the arranged attendance time for [redacted] site induction and give to HST Department. Without these they cannot start work. ▪ Organise appropriate Supervision and familiarisation with planned task 2. The contractor will: <ul style="list-style-type: none"> ▪ Complete visitor site entry requirements ▪ Swipe STAX contractor register if working outside of administration areas ▪ Complete the Contractor Site Access register details in the maintenance area 3. Note that this arrangement is for single site entry only for the contractor

HST Manager, all Managers and employees	16	<div style="border: 1px solid green; background-color: #ffffcc; padding: 5px; margin-bottom: 5px;">Provide Fatigue Management Counselling</div> <div style="text-align: center;">▼</div>	<ol style="list-style-type: none"> 1. [REDACTED] has a provider that employees can contact to arrange free confidential counselling services, to assist employees on personal issues including fatigue that may be affecting them at work or home 2. If the fatigue issue impacts on the employee's fitness for duty they are encouraged to remain in contact the [REDACTED] counselling provider to assist with management of the fatigue related issue 3. Programs to manage fatigue whilst on duty at [REDACTED] focus on education of early warning signs and management of fatigue related issues
Personnel Officer	17	<div style="border: 1px solid green; background-color: #ffffcc; padding: 5px; margin-bottom: 5px;">Medical Review after an Incident</div> <div style="text-align: center;">▼</div>	<ol style="list-style-type: none"> 1. Employees may be asked to participate in a medical review if the results of an incident investigation suggest factors contributed to a fatigue related medical condition
Personnel Officer	18	<div style="border: 1px solid green; background-color: #ffffcc; padding: 5px; margin-bottom: 5px;">Maintain Records</div> <div style="text-align: center;">▼</div>	<ol style="list-style-type: none"> 1. A confidential record shall be maintained of formal counselling, or disciplinary action taken, in relation to infringements of site rules relating to Fatigue Management.
Managers, Supervisors, Employees	19	<div style="border: 1px solid green; background-color: #ffffcc; padding: 5px; margin-bottom: 5px;">Comply with SOPs</div> <div style="text-align: center;">▼</div>	<ol style="list-style-type: none"> 1. Managers, in consultation with employee representatives, develop safe operating procedures which define safe work practices, where possible, incorporating requirements to manage fatigue 2. Managers are responsible to carry out audit checks for compliance to SOPs, including this Fatigue SOP 3. A non compliant contractor may have their site access stopped
Managers HST Manager	20	<div style="border: 1px solid green; background-color: #ffffcc; padding: 5px; margin-bottom: 5px;">Manage Change</div> <div style="text-align: center;">▼</div>	<ol style="list-style-type: none"> 1. Where any hazard or system deficiency is identified which causes fatigue issues, Department Managers should initiate means to control the problem: <ul style="list-style-type: none"> ▪ report and investigate any non compliances ▪ raise a Hazard Report form or Change Management Report (CMR) and give to the HST Manager ▪ raise at monthly OH&S Committee, through the SPOT, toolbox or feedback process
HST Manager	21	<div style="border: 1px solid green; background-color: #ffffcc; padding: 5px; margin-bottom: 5px;">Review the Fatigue Management Process</div> <div style="text-align: center;">▼</div>	<ol style="list-style-type: none"> 1. A review of this fatigue procedure will be undertaken by consulting with a cross sectional group from the site OHS committee, employees, Supervisors, Managers, contractors' representatives and fatigue management consultants 2. Reviews will take place when the following changes or incidents occur: <ul style="list-style-type: none"> ▪ prior to a major change to work conditions or a new roster ▪ 12 months after the release of this document ▪ after a fatigue related near miss, incident or injury onsite ▪ legislative changes to fatigue management requirements 3. The HST Manager reviews research papers and legislative guidelines to assist with development of fatigue risk management strategies

7. Procedures for Related Activities

8. Related Forms

Decision Tree Flowchart for Drug Testing F1416

9. Appendices

Fitness for Work Assessment Form F1404 – please download the form for use direct from Intranet

10. Latest Revision Details: Issue 1 of this SOP

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|--|------------|--------------------|
| Approved by: Manager of Mining Engineering: | [Redacted] | Date: 30 May 2008 |
| Approved by; Maintenance Manager | [Redacted] | Date: 25 June 2008 |
| Approved by: Health, Safety & Training Manager | [Redacted] | Date: 27 May 2008 |
| Approved by: General Manager | [Redacted] | Date: 26 June 2008 |

FITNESS FOR WORK ASSESSMENT FORM ██████

1. Details

Name of person being assessed:		Name of Assessor:	
Name of attending representative (if requested):		Date / Time:	
Duties being performed		BAC limit	

2. Assessment Trigger

Behaviour / actions / observations noted prior to this assessment

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3. Questions

Questions:	Response:
Can you give any reason for your appearance and behaviour as noted above:	
Have you consumed drugs and / or alcohol since the commencement of the shift?	
Could you be under the influence of drugs and / or alcohol?	

4. Observation Checklist

BREATH	Smell of intoxicating liquor: Nil Slight Strong: Other:
SKIN	Normal Pale Excessive perspiration Flushed Other:
CLOTHING	Orderly Soiled Disarranged Other
ATTITUDE	Co-operative Evasive Anxious Excited Drowsy Relaxed Indifferent Sedated Antagonistic Hostile Irritable Cocky Depressed Other:
ACTIONS	Fighting Swearing Talkative Hallucinating Hiccuping Belching Vomiting Dribbling Runny Nose Crying Restless Constant Scratching Unable to follow instructions Other:
EYES	Normal Watery Glazed Bloodshot Eyelids Drooping Pupils enlarged or Pinpoint Other:
BREATHING	Normal Short Jerky Rapid Shallow Slow Other:
SPEECH	Normal Incoherent Slurred Confused Fast Slow Other:
BALANCE	Unsteady Swaying Slumping Falling Other:
MOVEMENTS	Manner of walking – Need for support Staggering Overall performance of actions – Normal Clumsy Jerky Sluggish Tremor Other:
AWARENESS	Day/date Time Place Other identities Events of recent past

5. Conclusion

5.1 Assessment Result:

- No further action required (alternate explanation)
- Further assessment required
- Mutual agreement
- No agreement reached

5.2 Agreement reached on result: Yes / No

Signature of person being assessed:

5.3 Additional Actions

- No further testing or assessment required
- Breathalyser test performed
- Testing of urine sample arranged

Person returned to normal duties

Transport offered home & accepted – transported by _____

Transport offered & refused – witnessed by _____

5.4 Additional Notes:

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6. Completion

Signature of Assessor

Signature of Representative
(if present)

Assessment completion time: