

# Voisey's Bay: Fatigue Management Orientation

## 1. Fatigue Management

### 1.1 Fatigue Management –

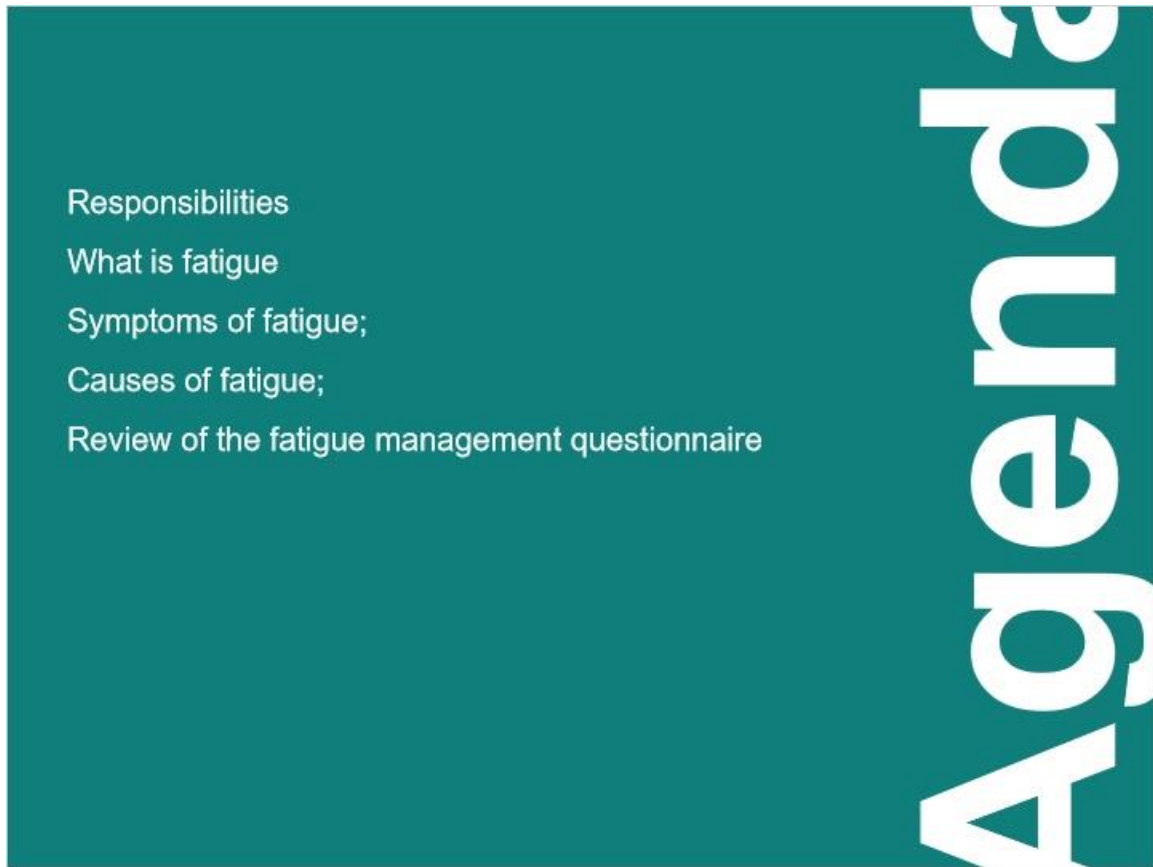


## Fatigue Management – Employee Training

VNL Labrador Operations



## 1.2 Untitled Slide



Responsibilities  
What is fatigue  
Symptoms of fatigue;  
Causes of fatigue;  
Review of the fatigue management questionnaire

# Agenda

## 1.3 Responsibilities

### Responsibilities

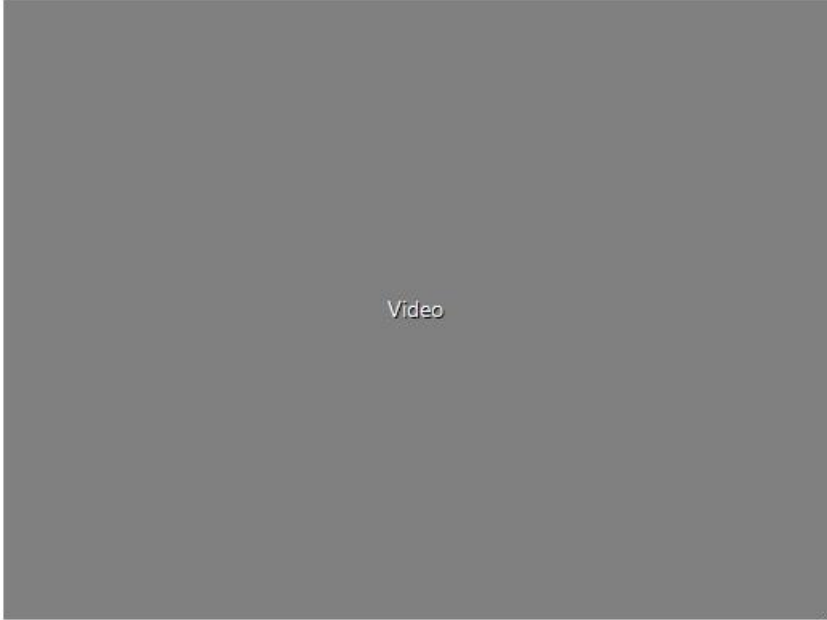
#### Workers Shall:

- Report symptoms of fatigue to their supervisor, and, where the risk of fatigue has been identified and not reduced to ALARA.
- Comply with the requirements of this program.




## 1.4 Video – Fatigue (7 mins)

**Video – Fatigue** (7 mins)



Video



## 1.5 What is Fatigue

### What is Fatigue

- Fatigue in the work context can be defined as a reversible physical or mental state of exhaustion which reduces a person's ability to perform their work safely and efficiently. Fatigue may occur due to the cumulative effect of work-related or non-work related factors.
- Fatigue increases the risk of incidents due to decreased alertness, ability to process information, reaction time and attention to work. In the long term, fatigue can contribute to and/or be aggravated by health problems such as alcohol and drug abuse, mental, behavioral, digestive and heart disorders. Furthermore, it lowers productivity and contributes to increased absenteeism.



## ***1.6 Symptoms of fatigue – Physical Signs***

### **Symptoms of fatigue – Physical Signs**

- Fidgeting, moving around in seat
- Rubbing eyes
- Repeated yawning
- Staring blankly, eyes going out of focus
- Frequent long blinks
- Difficulty keeping eyes open
- Head nodding
- Drowsiness
- Need for extended sleep during days off
- Reduced hand eye co-ordination or slow reflexes



## ***1.7 Symptoms of Fatigue – Cognitive Signs***

### **Symptoms of Fatigue – Cognitive Signs**

- Negative mood
- Reduced communication
- Slips and lapses
- Poor memory and inability to concentrate
- Reduced attention
- Impaired problem solving
- Increased risk taking



## 1.8 Causes of Fatigue

### Causes of Fatigue

- **Work schedules:** shift work, night work, hours of work and breaks. Shifts lengthened by overtime or double shifts, and not enough non-sleep rest breaks during a shift. Working at night when the body is biologically programmed to sleep can interrupt a person's body clock ie the circadian rhythm.
- **Job demands:** Some types of work, for example concentrating for extended periods of time, performing repetitious or monotonous work, and performing work requiring continued physical effort can increase the risk of fatigue. Workers can be mentally and physically fatigued at the same time. Work which is reactive and performed under high pressure, for example during emergency situations, may also increase the risk of fatigue.
- **Sleep** – length of sleep time, quality of sleep and time since sleep. While tired muscles can recover with rest, the brain can only recover with sleep. The most beneficial sleep is deep undisturbed sleep taken in a single continuous period. When individuals 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. It may take several days before a person recovers from a sleep debt. Sleep debt is common with night shift workers as they often experience difficulty getting enough undisturbed sleep during the day. One sleepless night can have similar effects on someone as drinking too much alcohol.
- **Sleep disturbances** - disturbed sleep may occur for a number of reasons, for example, noisy neighbors, an uncomfortable sleeping environment such as a stuffy bedroom. Although fatigue can accumulate over a long period of time, fatigue due to sleep loss is usually reversible after several nights of good quality sleep.





## 1.9 Causes of Fatigue

### Causes of Fatigue

- **Burnout** - can be described as striving too hard in one area of life while neglecting everything else. Workaholics', for example, put all their energies into their career, which puts their family life, social life and personal interests out of balance.
- **Lack of regular exercise and sedentary behaviour** - physical activity is known to improve fitness, health and wellbeing, reduce stress, and boost energy levels. It also helps you sleep. Regular exercise is also an effective treatment for anxiety and depression.
- **Poor diet** - low kilo joule diets, low carbohydrate diets or high energy/sugar foods that are nutritionally poor do not provide the body with enough fuel or nutrients to function at its best. Quick fix foods, such as chocolate bars or caffeinated drinks, only offer a temporary energy boost that quickly wears off and worsens fatigue.
- **Alcohol and other drugs** - alcohol is a depressant drug that slows the nervous system and disturbs normal sleep patterns. Other drugs, such as cigarettes and caffeine, stimulate the nervous system and make insomnia more likely.
- **Environmental Conditions** - Working in harsh and uncomfortable conditions can contribute to fatigue, for example, exposure to heat, poor lighting, cold, vibration or noisy workplaces can make workers tire quicker and impair performance.



### ***1.10 Ask yourself these questions !***

## **Ask yourself these questions !**

Do I get enough sleep?

Do I eat healthy ? refer to Canadas food guide.

Can I limit the amount of coffee I drink – especially before bedtime !

Can I reduce the number of cigarettes I smoke – especially before bedtime !

Do I participate in regular exercise regimes – 30 mins per day?

Am I aware of the side effects of medication that I take?

**ONLY YOU ARE IN CONTROL OF YOUR BODY!**



## 1.11 Fatigue Questionnaire

# Fatigue Questionnaire

- Review Contents of Questionnaire / Discussion

Circle the most appropriate Risk Category for each question listed below:		LOW RISK	MED RISK	HIGH RISK
How many shift days into the rotation is the worker?		1 – 5	5 – 10	10 – 14
How many hours sleep have you had in the past 24 hours?		7 or more	5 to <7	Less than 5
How many hours sleep have you had in the past 48 hours?		14 or more	10 to <14	Less than 10
Is the worker on Day or Night Shift?		Day	Night	
How many hours do you drive in a shift?		0-3	3-7	7+
Do you have a medical condition that is related to or contributes to your fatigue? If yes, please complete questionnaire at clinic		No		Yes
Do you feel alert?				
Rating	Description	1 – 2	3	4 - 5
1	Feeling active, alert or wide awake			
2	Functioning at a good level, but not at peak. Able to concentrate			
3	OK, but not fully alert			
4	A bit groggy, hard to concentrate			
5	Sleepy, groggy, would like to lay down			
How many times was your sleep disturbed or interrupted?		0 – 2	3 – 5	6 +
Are you on any medication or other substances that could cause drowsiness or cause you to be unfit for work?		No		Yes
Do you have any stress, health problems or other personal problems that are significantly affecting your concentration and/or sleep?		No		Yes
Add up the # of answers circled in each risk category. Multiply this # by the multiplier number to get a Risk Score for each risk category		# of Low Risk boxes circled	# of Med Risk boxes circled	# of High Risk boxes circled
Multiplier		x0	x1	x2
Risk Score				
Add your Risk scores together and use this number to follow the Recommended Controls listed below				




## 1.12 Untitled Slide

Level of Risk	Recommended Controls
<p><b>Low Risk</b></p> <p>Total Score = 0 - 3 AND individual is</p> <ul style="list-style-type: none"> <li>• Alert</li> <li>• Normal eye blinks (less than 1 second)</li> <li>• Coordinated body movements</li> <li>• Tolerant of others</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to monitor.</li> <li>• Remind individuals about fatigue and alertness management strategies (interaction with others, exercise, cold air on face, etc).</li> </ul>
<p><b>Medium Risk</b></p> <p>Total Score = 4 - 8 OR The individual reports they are fatigued and/or are showing some of the following signs:</p> <ul style="list-style-type: none"> <li>• Irritable/impatient</li> <li>• Longer eyelid closure (1 - 2 seconds)</li> <li>• Wandering thoughts</li> <li>• Rubs eyes or face</li> <li>• Facial contortions</li> <li>• Restless movements</li> <li>• Yawning</li> </ul>	<p>As above plus ...</p> <ul style="list-style-type: none"> <li>• Discuss possible reasons for fatigue</li> <li>• Rotate tasks</li> <li>• Encourage the use of alertness strategies</li> <li>• Provide opportunity for short breaks of no more than 15 minutes.</li> <li>• Have personnel work together (if possible).</li> <li>• Remove from high risk work.</li> <li>• Assess fitness for work before you allow person to return to work.</li> <li>• Schedule regular supervision/ check-ins for remainder of shift.</li> </ul>
<p><b>High Risk (Clinic to make final assessment)</b></p> <p>Total Score = 9+ OR The individual reports they are significantly fatigued and/or may be showing the following serious signs:</p> <ul style="list-style-type: none"> <li>• Quiet and withdrawn</li> <li>• Long eyelid closure (2 or more seconds)</li> <li>• Fixed staring</li> <li>• Frequent yawning/Micro sleeps</li> </ul>	<ul style="list-style-type: none"> <li>• Immediately prevent person from working and discuss the possible causes and action required.</li> <li>• <b>Send individual to the clinic with this form for assessment with the site nurse.</b></li> <li>• The site nurse will determine if the individual can be placed on alternate duties for the remainder of shift and managed at work.</li> <li>• If unable to be managed on alternate duties, the individual will not be permitted to report to work.</li> </ul>



### 1.13 Untitled Slide

<b>Action Taken</b>	
<input type="checkbox"/> No Action Required (Individual to report any further fatigue issues to supervisor) <input type="checkbox"/> Controls Implemented (List below): <hr/> <hr/> <hr/> <hr/>	
<input type="checkbox"/> Individual placed on the following alternate duties for the remainder of the shift: <hr/> <hr/> <hr/> <hr/>	
<input type="checkbox"/> Individual sent home. Transport arrangements: <hr/> <hr/> <hr/> <hr/>	
<b>High Risk Activities (check all that apply):</b>	
<input type="checkbox"/> Working at heights <input type="checkbox"/> Hoisting and Rigging <input type="checkbox"/> Lockout/Tagout <input type="checkbox"/> Confined Spaces <input type="checkbox"/> Loading and Blasting Activities <input type="checkbox"/> Mobile Equipment Operation <input type="checkbox"/> Light Vehicle Operation	
<b>Sign-Off</b>	
<i>I have had a one-on-one discussion with my supervisor/shift team leader/health and safety representative and have responded honestly to all questions. I agree to follow the controls listed above to manage any identified fatigue issues.</i>	
Employee Name (Print):	Signature:
Supervisor Name (Print):	Signature:
HSE Representative (Print):	Signature:
Clinic Representative (Print):	Signature:



## 1.14 Untitled Slide

Report signs and symptoms of fatigue to your  
Supervisor !

