

1.1 PURPOSE

- 1.1.1 The purpose of this policy is to assist in the assessment of the causes of fatigue and mitigate the related hazards for TERRY R PITT CONSTRUCTION.

1.2 RESPONSIBILITIES

1.2.1 TERRY R PITT CONSTRUCTION

- 1.2.1.1 Ensure a minimum of 12 hours of rest between consecutive shifts
- 1.2.1.2 Limit overtime so workers are not working longer than 12 hours for multiple shifts
- 1.2.1.3 Provide supervisor training

1.2.2 Supervisor

- 1.2.2.1 Ensure that persons under their control are aware of and comply with this procedure
- 1.2.2.2 Ensure that applicable work schedules comply with this procedure
- 1.2.2.3 Monitor personnel for the signs and symptoms of fatigue
- 1.2.2.4 Conduct a review of any fatigue related incidents and the effectiveness of existing control measures as required
- 1.2.2.5 Make safety critical decisions and take appropriate actions to prevent loss
- 1.2.2.6 Attend supervisor training

1.2.3 Employee

- 1.2.3.1 Comply with this fatigue management policy
- 1.2.3.2 Monitor for the signs and symptoms of fatigue in coworkers and team members
- 1.2.3.3 Get enough sleep and come to work fresh and alert
- 1.2.3.4 Plan social activities to ensure sufficient sleep before starting work
- 1.2.3.5 Consult with the supervisor when a fatigue issue exists
- 1.2.3.6 Attend awareness level training

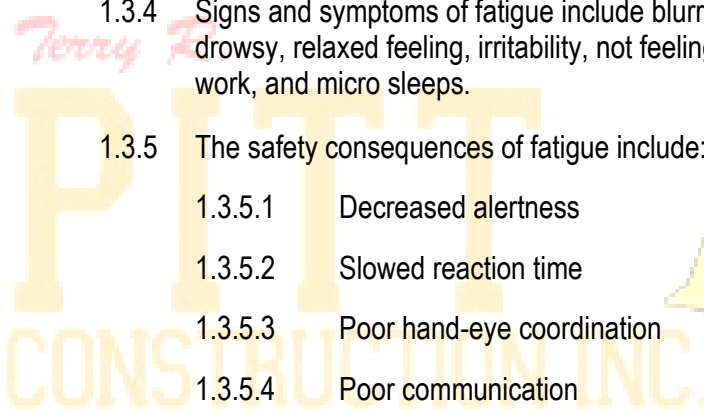
1.2.4 Safety department

- 1.2.4.1 Provide timely advice, support, and assistance to supervisors in implementing this policy
- 1.2.4.2 Ensure fatigue related incidents are reported and fatigue is considered during investigations
- 1.2.4.3 Review fatigue risk analysis and effectiveness of existing control measures as required

1.2.4.4 Attend supervisor training

1.3 GENERAL

- 1.3.1 Fatigue is caused by prolonged periods of physical and/or mental exertion without enough time to rest and recover. Causes of fatigue can result from both features of the workplace and a worker's personal life.
- 1.3.2 Signs of fatigue include long eye blinks, repeated yawning, frequent blinking, bloodshot eyes, poor reaction time, slow speech, loss of energy, and an inability to concentrate. Fatigue can result in a lack of attention, difficulty following instructions, reduced ability to think clearly, and slower response to changing circumstances. Chronic fatigue can also lead to long-term health issues.
- 1.3.3 Most adults need 7 to 8 hours of sleep in every 24 hours to feel well rested. A sleep debt is built up by routinely getting less than 7 to 8 hours of sleep per night. This debt may result in impaired performance, reduced alertness, and higher levels of sleepiness and fatigue. A sleep debt can only be repaid with restful sleep.
- 1.3.4 Signs and symptoms of fatigue include blurred vision, difficulty keeping eyes open, head nodding, drowsy, relaxed feeling, irritability, not feeling refreshed after sleep (waking tired), falling asleep at work, and micro sleeps.
- 1.3.5 The safety consequences of fatigue include:
- 1.3.5.1 Decreased alertness
 - 1.3.5.2 Slowed reaction time
 - 1.3.5.3 Poor hand-eye coordination
 - 1.3.5.4 Poor communication
 - 1.3.5.5 Higher error rates
 - 1.3.5.6 Reduced vigilance
 - 1.3.5.7 Reduced decision making ability
 - 1.3.5.8 Poor judgment of performance, especially when assessing risks
 - 1.3.5.9 Being easily distracted during complex tasks
 - 1.3.5.10 Difficulty responding to emergencies
 - 1.3.5.11 Loss of awareness of critical situations
 - 1.3.5.12 Inability to remember the sequence of events
- 1.3.6 Managing fatigue requires the following measures to be undertaken:
- 1.3.6.1 Complete a fatigue risk analysis



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- 1.3.6.2 Create a management plan to eliminate or mitigate identified risks
- 1.3.6.3 Ensure personnel are educated and informed of fatigue risk
- 1.3.7 A fatigue risk analysis must identify the impact of fatigue risks, taking into account relevant local industry regulations. Work tasks to control fatigue must be analyzed and evaluated periodically in order to develop corrective actions to lessen worker fatigue.
- 1.3.8 Workers who drive motor vehicles for extended hours must be aware of proper fatigue management. As the work type changes, shop workers, operations, and support personnel must also be aware of the signs of fatigue and must act accordingly.
- 1.3.9 Office work, business travel, and commute time have associated fatigue risks that must be managed. Business travel to operational sites must be managed through local journey management plans. General business travel must be managed through fatigue risk assessments. Commute time and core business hours for office locations must also be assessed.
- 1.3.10 Fatigue is a complex issue that not only arises from hours of work and activities at the workplace but it is also influenced by factors outside of work (ex. family responsibilities, stress, lifestyle, personal health, etc.). The management of fatigue is a shared responsibility between management and each individual.
- 1.3.11 Workers are expected to be fit for duty. In the event fatigue or tiredness prevents a worker from performing safely, it should be reported to the supervisor immediately.

1.4 CONTROLS

- 1.4.1 Time spent away from the work environment allows workers to recover from fatigue and improve performance, vigilance, safety, and efficiency. Breaks should be taken during shifts and should not be traded for an early finish time.
- 1.4.2 The risk of fatigue can be significantly reduced by effective planning and resourcing of work shifts, work cycles, and rotations. Each supervisor must ensure that schedules, work cycles or job roles are assessed for fatigue risks. The following items must be assessed at a minimum:
 - 1.4.2.1 Are safety critical tasks planned during *circadian low* hours, 2am - 6am and 2pm - 4pm?
 - 1.4.2.2 Are complex tasks planned on the first or final shift of a nightshift work cycle?
 - 1.4.2.3 Are standby and on-call duties limited where possible?
 - 1.4.2.4 Does day shift start before 6am?
 - 1.4.2.5 Is the maximum number of shifts in a work cycle in line with relevant industry practices and regulatory standards?
 - 1.4.2.6 Do extended shifts (> 12 hours) occur more than three times in a work cycle?

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- 1.4.2.7 Do shifts rotate backwards (day to night to afternoon)?
- 1.4.3 When determining if the work schedule is contributing to a fatigue problem consider the following:
 - 1.4.3.1 Length of shifts worked
 - 1.4.3.2 Previous hours and days worked – the effects of fatigue are cumulative; workers may have sleep debt due to the length of previous shift
 - 1.4.3.3 Type of work being performed – pay particular attention to the level of physical and/or mental effort required
 - 1.4.3.4 Time of day when work is being performed – remember that disrupting the body’s circadian rhythms can cause fatigue and affect performance
- 1.4.4 Managing fatigue successfully is ensuring that workers have sufficient time between shifts. Workers who consider their work schedule is contributing to a fatigue problem should consult with their supervisor. The possibility of job rotation may be considered where practicable.
- 1.4.5 Employees must not chronically use OTC or prescription drugs to increase mental alertness. Employees are discouraged from taking any substance known to increase fatigue, including fatigue that sets in after the effects of the drug wear off.
- 1.4.6 Rest is the most important control measure for managing fatigue. To provide adequate rest consider the following:
 - 1.4.6.1 Is a 12-hour or longer break between work shifts provided?
 - 1.4.6.2 Does the break between work shifts provide a sleep opportunity of 7 or more hours of continuous sleep?
 - 1.4.6.3 Is a minimum of one break provided between each 4 hours of work with one break of sufficient length to have a meal (ex. 30 minutes)?
 - 1.4.6.4 Are more frequent short breaks allowed during strenuous activities?
 - 1.4.6.5 Is ready access to drinking water provided?
- 1.4.7 Ergonomic equipment will be used to improve conditions and increase mental alertness. Lift assist devices will be used for repetitive lifting, and proper lighting and control of temperature and other ergonomic devices will be utilized, as deemed appropriate.
- 1.4.8 Do on call schedules provide for adequate rest before returning to a regular work shift?
- 1.4.9 Shift workers, as a group, tend to get significantly less sleep than those who work equivalent hours that do not intrude on the typical sleep period. For night shift workers, sleep during the day is usually of poor quality due to circadian disruptions and environmental factors such as daylight, traffic, and household noise.

- 1.4.10 Food or drink consumed before going to bed can affect sleep quality. The digestive system is controlled by circadian rhythms and digestion slows down at night irrespective of bodily activity. The timing of meals and quality of foods eaten can be difficult to digest, may lead to digestive complaints (heartburn, indigestion), and affect sleep. Eat light, healthy food that is easy to digest.
- 1.4.11 Avoid drinks that contain caffeine and alcoholic beverages in the last few hours prior to sleep.
- 1.4.12 Excessive hours spent traveling to and from work can extend the effective length of a shift, reduce time available for sleep and recovery between shifts, and may have significant effects on fatigue levels. Combined with work related fatigue, this makes driving to and from work very hazardous.
- 1.4.13 Workers should be aware of the effects of fatigue when driving to or from work. Precautions include avoid driving when tired, share the drive with other workers, and try not to drive in the hours when you would normally be asleep (especially midnight to dawn).

1.5 TRAINING

- 1.5.1 Awareness level training must be provided to all employees who have been identified to be at risk for fatigue periodically to ensure a minimum level of understanding. Initial and annual training must be provided on how to recognize fatigue, how to control fatigue through appropriate work and personal habits, and reporting of fatigue to supervision.
- 1.5.2 Training will assist all personnel to recognize the symptoms of fatigue and manage fatigue risks in a safe manner. As a minimum, the training topics must enable the individual to:
 - 1.5.2.1 Understand responsibilities and know how to recognize the effects of fatigue in themselves and others.
 - 1.5.2.2 Understand the influences of a healthy lifestyle and non-work activities on fatigue.
 - 1.5.2.3 Understand the effects of medical conditions, sleep disorders, and drugs and alcohol.
 - 1.5.2.4 Understand how to apply personal countermeasures to manage fatigue.
 - 1.5.2.5 Understand and accept responsibility to use recovery time effectively and present rested and fit for work when the work shift begins.
- 1.5.3 Initial and periodic supervisory level training must be provided for personnel with a supervisory role. The purpose of the training is to provide the skills and information to implement fatigue management principles in the daily operation of assigned duties. This training will also assist supervisors to recognize and manage fatigue risks with direct reports. Training topics must include those contained in the awareness level training and the following:
 - 1.5.3.1 Understand responsibilities and when to initiate fatigue controls.
 - 1.5.3.2 How to manage employees who present signs of fatigue.