

PURPOSE/APPLICATION

The nature of work in the construction industry can often result in extended work hours. CPES recognizes that fatigue is an ongoing concern, which may affect a worker’s ability to perform mental and physical tasks and will do everything reasonably practicable to manage the risk of fatigue in the workplace.

The purpose of the Fatigue Management System is to ensure management, supervisory personnel, and employees understand what fatigue is, and how extended hours or consecutive days of work can affect fatigue. It will also help to understand the proper proactive methods of effectively dealing with worker fatigue, which will include awareness of, and response to fatigue issues in the workplace.

PPE

- CPES minimum requirements

TRAINING

- Fatigue Awareness

HAZARDS & CONCERNS

- Personal injury
- Property damage
- Occupational illness
- Motor vehicle collisions



PRECAUTIONS

Fatigue is the state of being mentally or physically tired. It can be caused by long hours of work, long hours of physical or mental activity, inadequate rest, excessive stress, and combinations of these factors. The signs, symptoms and effect fatigue has on workers varies from one person to the next, however fatigue affects the individual worker’s ability to perform mental and physical tasks and is recognized throughout industry as a form of impairment.

Workers will receive training in fatigue management at safety meetings and at tailgate meetings as well as during their new worker orientation.

Note: Many of the signs and symptoms resemble signs and symptoms of alcohol impairment, however someone suffering from fatigue will not smell of alcohol. If someone smells of alcohol, please refer to CPES’s HSEMS Section 13 Alcohol & Drugs.

SIGNS AND SYMPTOMS

CPES supervision will monitor workers for the signs and symptoms of fatigue. If a worker is identified to not be fit for duty, the supervisor will address the concern with the individual (see management of fatigue section for additional information).

Common Signs and Symptoms of Fatigue Include:

- Tiredness/Sleepiness
- Irritability/Depression
- Giddiness
- Slowed Reaction
- Decreased vigilance
- Failure to respond
- Reduced motivation
- Incorrect actions
- Increased tendency to risk taking

- Loss of appetite
- Lethargy
- Irritability
- Drowsiness
- Yawning

Some possible performance impairments are:

- Slowed reactions – physical reaction speed & speed of thought
- Decreased vigilance
- Failure to respond – to stimuli, changes in surroundings, or information provided
- Reduce motivation
- Incorrect actions – either physical or mental
- Increased tendency for risk-taking
- Flawed logic and judgment and an increase in memory errors, including forgetfulness

Factors, which may have an influence on increasing fatigue are:

- Time of day
- Duration of the extended hours / consecutive days
- Temperature
- Days off
- Working alone
- Type of work
- Repetitive or boring functions
- Job stress
- Being inactive
- Home stress
- Length and frequency of breaks
- Non-effective use of personal time
- Availability of food and water

PREVENTATIVE MEASURES

The following items will help reduce the number of fatigue related incidents, and shall be used by all of CPES employees, sub contractors, third party vendors, and visitors whenever possible.

- Minimized extended hours of work
- Consider travel time to and from work, when planning the day's activities
- Schedule days off
- Report any unsafe acts
- Risk and hazard assessments
- Report all incidents and near misses
- Recognize individual and crew fatigue
- Inform management if an individual or crew has a concern with working extended hours
- Advanced notification of extended work hours/ consecutive days
- Monitor the hours of work
- Short & frequent breaks
- Address all crew member concerns regarding extended work hours/ consecutive work days
- Rotation of crew members
- Monitor the progress of all workers working extended hours / consecutive work days
- Perform complex tasks earlier in the day
- Workers need to report personal fatigue to their supervisors
- Utilize the buddy system to monitor each other's fatigue
- Supervisors need to recognize fatigue in their workers and take steps to manage it

- Non-Management employees will not exceed 24 working days in a row without approval by the Area Manager

PERSONAL MANAGEMENT OF FATIGUE

Research into fatigue management has yielded many impactful strategies that can reduce the negative impact of fatigue. All employees are encouraged to employ as many of the following strategies as reasonably practicable:

THE DOs

- DO** Aim for a minimum of eight hours of uninterrupted sleep per night - studies have shown that less than seven can impact several health markers and that five or less can leave you functioning at the same level as a slightly intoxicated person the next day.
- DO** Shut off all electronics an hour before sleep – the television, your phone or computer all emit blue light, this stimulates your brain to produce the chemicals to wake you up, shutting electronics down an hour or more before bed sets you up for a much better sleep.
- DO** Keep your room cool – People tend to sleep best in temperatures around 18° Celsius.
- DO** Develop an evening ritual – Following the same pattern at around the same time every night let your system know you are getting ready for sleep and give it time to adjust.
- DO** Exercise regularly – Regular exercise helps maintain a healthy body with optimal hormone levels, both are essential for restorative sleep.
- DO** Hydrate during the day – Keeping yourself hydrated is essential to keeping your body functioning at its best, drinking water during the day is preferable to the evening so that you aren't getting up in the night.
- DO** Use caffeine appropriately – Caffeine can help to keep you alert and awake, however it can also keep you from sleeping deeply, caffeine effects you for up to six hours so it is best to avoid it later in the day.
- DO** Plan your travel – Driving fatigued can be very dangerous, always plan your trips so that you are well rested and alert, consider staying an extra night at the end of the shift rather than putting yourself and everyone else on the road in danger.

THE DON'Ts

- DON'T** Forget about sleep debt – If you can't get all the sleep, you need every night it is a good idea to try and make up the difference during the week, schedule naps or sleep in where you can.
- DON'T** Try to "power through" if you are fatigued and think it may impact your safety or the safety of anyone around you, speak to your supervisor immediately.

Management of Fatigue

CPES will implement the following strategies to manage fatigue:

- CPES shall discuss fatigue management on the first day of the shift, the symptoms and control strategies identified within this plan shall be discussed.
- Workers shall be encouraged throughout the shift to monitor their fatigue levels and come forward to speak to their supervisor if they have any concerns regarding their readiness for work.
- Upon reports of fatigue, CPES supervisors shall review the case and in consultation with the worker decide on the appropriate mitigation strategy (e.g., sending the worker home, assigning low risk tasks, or adjusting the workers schedule).
- During long shifts, CPES's supervision should increase site walkthroughs and be particularly attentive to identify fatigue may be a concern.
- CPES's tailgate meetings discussion shall include the concepts of fatigue management (e.g., maintaining proper nutrition, exercising regularly, and maintaining a dark cool sleep area, maintaining hydration), and focus on "mind on task" during extended shifts and busy stressful times of year (e.g., end of the year, returning to work after holidays etc.).

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FATIGUE MANAGEMENT

- CPES will consider altering the shift plan or adjust this plan if fatigue becomes an increased concern to site or corporate supervision.
- CPES shall encourage workers to stay in a location as close as possible to the worksite to reduce the amount of travel required.

RESPONSIBILITIES

Supervisors shall:

- Ensure staff are educated about the impact of fatigue on their safety
- Ensure all staff for which they are responsible are familiar with the Fit for Duty expectations
- Take steps to ensure all staff feel comfortable disclosing fatigue without fear of repercussion
- Include consideration of worker fatigue as part of the work planning process
- Recognize fatigue as a workplace hazard and utilize this practice in identifying possible signs of fatigue and taking steps to reduce risk
- Consider fatigue when scheduling shifts and/or assigning work
- Guide direct reports on hazards associated with fatigue and ways to reduce the hazards of fatigue
- Encourage staff to report any concerns they may have about work-related fatigue
- Monitor worker fitness for duty
- Utilize Individual Fatigue Likelihood Assessments as required

Workers & Contractors shall:

- Arrive at work fit for duty, and remain fit for duty
- Advise their supervisor if they are unfit for duty
- Comply with Fit for Duty expectations
- Take accountability for their own health and safety, as well as the health and safety of others in the workplace as it relates to fatigue, including without limitation to stop work/intervene if a co-worker is displaying signs or symptoms of fatigue.
- Report to their supervisor any concerns related to their own or a co-worker's fatigue, as well as all fatigue-related incidents

FATIGUE ASSESSMENTS

Self-Assessment

A self-assessment can be conducted independently, in consultation with a colleague or with a supervisor using the Individual Fatigue Likelihood Assessment (IFLA). The score is an aid in determining existence of fatigue and appropriate controls but is not determinative. Staff should report potential fatigue to their supervisors, as they would with any workplace hazard, regardless of the score.

Supervisor-Assessment

An assessment using the IFLA should be conducted by the worker's supervisor if any of the following conditions apply:

- Self-disclosure - Worker self discloses that they are fatigued and are having difficulty performing work related activities, and/or fatigue score using the IFLA is a 5 or higher
- Third Person Identification - Supervisor suspects that worker is potentially fatigued based on signs/symptoms observed, and/or colleague suspects that worker is potentially fatigued and supervisor concurs.
- Post Incident – Significant incident or near miss occurs in the workplace where a Supervisor or H&S Advisor suspects fatigue is a possible contributing factor

The IFLA score is an aid in determining existence of fatigue and appropriate controls but is not determinative. A worker may still be fatigued, regardless of the score. If a supervisor needs further assistance in assessing worker fatigue, contact HSE/HR Department.

Individual Fatigue Likelihood Assessment					
Step 1: Sleep in prior 24 hours					
Sleep	≤2h	3h	4h	5+h	
Points	12	8	4	0	
Step 2: Sleep in prior 48 hours					
Sleep	≤8h	9h	10h	11h	12+h
Points	8	6	4	2	0
Step 3: Hours awake since last sleep					
Add one point per hour awake greater than sleep in Step 2.					
Step 4: Add all points together to determine your score					
Score	Control Strategies				

1-4	Continue with normal work activities. Self-monitor and implement personal fatigue countermeasures if necessary.
5-8	Notify your supervisor. If your supervisor is unavailable, have a discussion with your colleagues and implement suitable Controls. If your conditions deteriorate, do not perform any medium or very high risk work until you have a meeting with your supervisor and have determined a path forward.
9+	Report to your supervisor.

RESOURCES

CPES’s employee assistance program offers many resources, they also offer employees access to counselling and other resources.

CPES’s HSEMS Section 21 Fleet Safety and Journey Management offers guidance on hours of service and planning driving activities to help reduce fatigue.

REFERENCES / ADDITIONAL INFORMATION

Alberta Employment and Immigration, Department of Workplace Health and Safety, Bulletins:

- Exhausted or Drunk: Behind the Wheel it Makes No Difference
- Fatigue and Safety at the Workplace
- Fatigue, Extended Work Hours, and Safety in the Workplace
- Energy Safety Canada – Employers Guide to Safe Work: Fatigue Management
- Energy Safety Canada – Guide to Safe Work Fatigue Management Info Flip.

Alberta Employment standards

Hours of work and rest

British Columbia Employment Standards

Hours of work and overtime

Manitoba Employment Standards

Hours of Work and Breaks



SAFE WORK PRACTICE

SWP-23

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FATIGUE MANAGEMENT

Saskatchewan Employment Standards

Limit on Hours of Work Per Week

Developed by:	1.	Garry Lane		Date:	Aug. 23, 2004
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