

Commutes put workers at higher risk of fatigue-related MVIs

The BC Forest Safety Council's transportation and northern safety manager, Trish Kohorst, recently attended a Fatigue in Transportation Forum (end of June 2018) to learn about the latest developments, information and tools to assist industry in better preventing and managing workplace fatigue. The key objective is to support policies, training, programs and tools that help prevent the impacts of fatigue on workplace performance and safety.

Trish said that Dr Imelda Wong, of the National Institute for Occupational Safety and Health (NIOSH), focused her presentation on nonstandard schedules and commuting motor vehicle incidents.

Commuting increases the risk of fatigue-related incidents

"In the forest industry, nonstandard schedules, such as early mornings and long work hours, rotating and irregular shifts are the norm for some sectors. Whether operating equipment, planting trees, or supervising workers, it is important that company owners, supervisors and workers understand that driving to and from the worksite is a critical time for potential fatigue-related motor vehicle incidents (MVIs)," said Trish. Forestry is not alone. A total of 25% of all Canadians work nonstandard schedules.

She said that Dr Wong explained that there is an increased risk of drowsy driving and MVI risk when working nonstandard schedules (outside regular 9-to-5 hours). Dr Wong shared some of the whys; factors that increase risk; and some things that industries and individuals may consider in providing solutions that are appropriate to their workplaces*:

Why?

- Commuting is a routine activity resulting in less vigilance and attention

- Drivers are more easily distracted during commuting, and are often focused on thoughts of work / life demands.

What factors increase the risk?

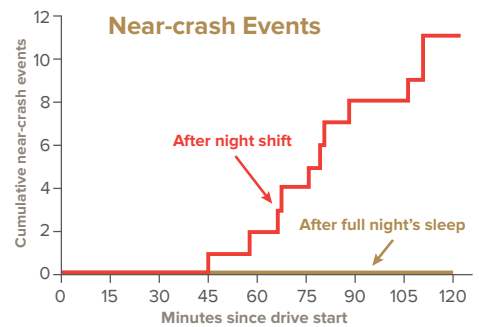
- Length of commute (distance and time)
- Time of day (e.g. early morning and late nights)
- Age:
 - 25-34 years of age
 - Men older than 55 have a greater risk for fatal MVIs
- Sleep problems (sleep disorders, impaired sleep)
- Night shifts
- Extended work hours / how long you have been awake
- Work stress / time pressure.

What can be done?

- Provide appropriate resources for workers (group transportation, training)
- Improved shift scheduling (duty duration, start times)
- Obtain regular sufficient (minimum seven hours recommended) quality sleep
- Use in-vehicle monitoring / sensors to make drivers aware when they are becoming drowsy
- Pair workers to help keep each other vigilant.

Dr Wong also shared that in a recent closed-track study (Lee 2016, see *Near-crash Events* figure), researchers found that after workers obtained a full night's sleep (i.e. eight hours), there were no near-crash events (i.e. deviation from laneway). However, after a full night shift, the first near-crash event happened after only 45 minutes. In addition, almost half the study participants were required to stop the experiment because they were too drowsy

to drive safely. Those who completed the two-hour driving test were removed from the track every 15 minutes for additional tests. This change in tasks – between driving and additional tests – kept drivers alert longer than if they were allowed to continue driving without stops. Therefore, the results may be overestimated, and a near-crash event may occur earlier under "real-life" situations. Also, it was a closed track so there were no influences of traffic volume or related distractions, etc.



Time to near-crash event after a night shift and after a full night's sleep. Adapted from: Lee ML, Howard ME, Horrey WJ, Liang Y, Anderson C, Shreeve MS, O'Brien CS, Czeisler CA. High risk of near-crash driving events following night-shift work. *Proceedings of the National Academy of Sciences*. 2016 Jan 5; 113 (1): 176-81

"The Trucking and Harvesting Advisory Group will be provided with all the latest information presented at the conference to consider if and how it might best be used to inform industry-wide safer driving practices regarding fatigue," said Trish.

(Footnote: *Dr Wong credited other research papers supporting her analysis, namely work done by Elfering, Brosschot, Grebner, Gold, Di Milia, Scott, Swanson, Kirkcaldy, Barger, Charbotel, Hours, Chiron, Carter, Lee, Zepf, and Akerstedt.)

MFSAG materials finalized for marine operators carrying forestry workers

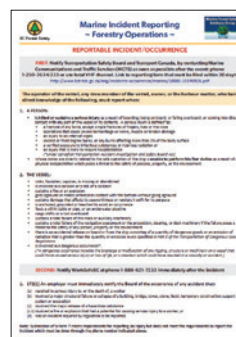
The Marine Forestry Safety Advisory Group (MFSAG) has finalized two documents and a sticker to help support better safety outcomes when forestry workers are transported by marine vessels to and from forestry operations.

The group was formed following the Lasqueti Daughters incident (foundering and abandonment of self-propelled barge at Sutil Point, British Columbia on 14 March 2015 (see Transportation Safety Board report: <http://www.tsb.gc.ca/eng/rapports-reports/marine/2015/m15p0035/m15p0035.pdf>). The focus of the group is to support the prevention of fatalities and injuries to forestry workers being transported to worksites by marine vessels.

The latest tools developed by the group include a two-page Marine Incident Reporting summary sheet; a one-page summary sheet of key information for all marine vessels transporting forestry workers; and a sticker for

quick reinforcement for any captain, crew or passenger members who might need support to operate a radio system to send a distress signal in a worst-case scenario.

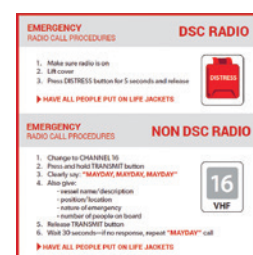
All vessels that carry workers on waterways must be licensed as commercial vehicles and meet all the regulatory requirements for operational, crew and passenger safety. Learn more by reviewing the summary documents and applicable regulations (there are links in the documents).



To view and download the 2-page reportable incident/occurrence procedure document, see: https://www.bcforestsafesafe.org/files/ps_MarineIncidentReporting.pdf



To view and download they key information for small commercial passenger vessels carrying forestry workers document, please see: https://www.bcforestsafesafe.org/files/ps_KeyInformationForSmallCommercial.pdf



To view or download the sticker see: https://www.bcforestsafesafe.org/files/ps_MarineEmergencyRadioCallProcedureSticker.png

If you are a marine operator and would like to order the sticker, please complete the order form here:

https://www.bcforestsafesafe.org/files/ps_InjuryPreventionResourceOrderForm.pdf